Churchill Livingstone

MCQs in Dentistry

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Contents

1 Prosthetics (including materials)

1.1 Epidemiology. In a 1978 Adult Dental Health Survey it was found that

A over 45% of the adult population of England and Wales were edentulous
B a significantly higher proportion of men than women were edentulous
C the proportion of adults wearing partial dentures was increasing
D more adults wear upper partial dentures than lowers

1.2 In which one of these situations following extraction is alveolar ridge resorption least?

A Anterior edentulous mandible with denture
B Anterior edentulous maxilla with denture
C Anterior mandible with 3/3 retained to support an overdenture
D Anterior edentulous maxilla with denture opposed to a lower complete overdenture

1.3 Following extraction of all teeth

A half of the total change in alveolar ridge form will be complete after 1 month
B in the mandible a greater loss of ridge height occurs in the incisor region than in the molar region
C the zone of attached gingiva is lost
D the centre of the incisive papillae remains between 8–10 mm behind the original position of upper central incisal edges

1.4 During the setting of alginate impression materials

A trisodium phosphate reacts preferentially with calcium sulphate
B trisodium phosphate reacts preferentially with sodium alginate
C the colloidal gel state changes to a sol
D the material in contact with the soft tissues sets last

(Answers overleaf)

Answers

1.1 A **False** 29% of the adult population of England and Wales were edentulous
B **False** 32% of females over the age of 16 were edentulous compared to 24% males
C **False** in 1978 20% of the population had partial dentures compared to 22% in 1968
D **True**

1.2 A **False** resorption is greatest in A followed by D, then B and least in C
B **False**
C **True**
D **False**

1.3 A **False** approximately one-third of the total change in ridge contour will be complete after the first month
B **True**
C **False** the zone often remains as a band of keratinised epithelium on the alveolar ridge
D **True**

1.4 A **True**
B **False** see A
C **False** the sol state changes to a gel
D **False** the material in contact with the soft tissues is at a higher temperature and sets first

1.5 An alginate impression
A should be rapidly displaced from the mouth
B may exhibit fluid exudate on the surface as a result of imbibition
C will take up water and expand if kept wet
D will shrink as a result of syneresis.

1.6 Alginate impression materials
A are hydrophilic
B are mucostatic in comparison to zinc oxide/eugenol paste
C are more dimensionally accurate than reversible hydrocolloids
D can be sterilised in formaldehyde when set

1.7 Reversible hydrocolloid impression materials have the following properties
A Contain potassium sulphate to promote the setting of dental stone
B The material in contact with the soft tissues sets first
C Hysteresis
D They can be reused after use in the mouth

1.8 Impression plaster (plaster of Paris)
A is calcined calcium sulphate hemihydrate prepared by heating the dihdyrate under steam pressure
B produces less mucosal displacement than alginate
C contains borax to control the setting expansion
D should be cast up on removal from the mouth without any further treatment.

1.9 The setting of plaster of Paris is accelerated by
A the addition of potassium sulphate
B mixing with hot water
C rapid vigorous mixing
D increasing the ratio of water to powder

1.10 Zinc oxide/eugenol impression paste
A cannot be used to record undercut areas
B is a thermoplastic impression material
C has a setting time, the rate of which decreases as humidity increases
D is both an irritant and an allergen

(Answers overleaf)

1.5 A **True**
B **False** imbibition is the uptake of water. Fluid exudate is a result of syneresis
C **True** **True**
D **True**

1.6 A **True**
B **True**
C **False** reversible hydrocolloids exhibit a high level of dimensional accuracy and may be used for crown and bridge impressions
D **False** they undergo surface deterioration and dimensional changes

1.7 A **True**
B **False**
C **True**
D **False** the material cannot be satisfactorily sterilised

1.8 A **False** heating the dihydrate under steam pressure at 120–130°C produces dental stone which is chemically identical to plaster of Paris but has different physical properties
B **True**
C **False** borax is added to retard the rate of setting
D **False** a separating agent such as alginate mould seal is required to prevent bonding with the model material

1.9 A **True**
B **False** setting is gradually retarded as the temperature increases above 50°C until it is completely inhibited by water close to boiling point
C **True**
D **False** increasing the proportion of water decreases the number of nuclei of crystallisation per unit volume resulting in a longer setting time

1.10 A **True**
B **False** it is not used as a thermoplastic impression material but may be heat-softened to aid removal from the cast
C **False** the opposite is true
D **True**

1.11 A separating agent is used when flasking and packing acrylic resin dentures
A so that investing plaster in one half of the flask will not adhere to that in the other half
B to prevent water from the investing plaster affecting polymerisation of the resin
C to minimise the thickness of the flash
D to prevent monomer from soaking into the investing plaster

1.12 The following materials are effective as plaster separating agents
A A solution of potassium alginate
B Tinfoil
C Liquid paraffin
D Soap solution

1.13 The lingual extension of a lower denture is limited by
A the sublingual salivary gland
B the modiolus
C the mylohyoid muscle
D the origin of the genioglossus muscle

1.14 Occlusal rims for complete dentures provide the following information when trimmed
A centric jaw relationship
B dimension of the freeway space
C overjet or horizontal incisor overlap
D orientation of the occlusal plane

1.15 The resting face height
A is equal to the occluding face height together with the interocclusal clearance
B remains constant through life
C is increased when a lower denture is placed in the mouth
D is decreased when the head is tilted back

1.16 The ala-tragal line is
A the line running from the tragus of the nose to the ala of the ear
B parallel to the Frankfort plane
C a guide to the occluding face height in complete dentures
D a guide to the orientation of the occlusal plane in complete dentures.

1.17 A face bow records the following information
A The relationship of the upper jaw to the hinge axis of the condyle
B The sagittal condyle angle
C The orientation of the occlusal plane to the axis-orbital and Frankfort planes
D The relationship of the upper and lower jaws to each other

1.11 A **True**
B **True**
C **False** excess acrylic dough or flash must be removed after a trial closure of the flask
D **True**

1.12 A **True**
B **True**
C **True**
D **True**

1.13 A **True**
B **False** the modiolus is a decussation of muscles fibres at the corner of the mouth
C **True**
D **True**

1.14 A **True**
B **False**
C **True**
D **True**

1.15 A **True**
B **False** longitudinal studies have shown that it may increase with age in dentate subjects and decrease in the edentulous
C **True**
D **False**

1.16 A **False** the line runs from the inferior border of the ala of the nose to the tragus of the ear. The point on the tragus may be taken as the superior border or more commonly the mid-point of the tragus
B **False** the line forms an angle of approximately 8° with the Frankfort plane
C **False** the vertical dimension is independent of the ala-tragal line
D **True**

1.17 A **True**
B **False** this must be done using a protrusive record
C **True**
D **False** this must be done using an occlusal record

1.18 The Bennett angle
A is the angle between the sagittal condylar path and the Frankfort plane
B is the angle which the path of the balancing side condyle makes with the sagittal plane during lateral excursion
C is measured using a face bow
D has an average value of 150

1.19 Bilateral balanced occlusion
A is dental articulation which is unobstructed by cuspal interference
B is simultaneous contact of the occluding surfaces of the teeth of both sides of the mouth in the retruded jaw relationship
C is simultaneous contact of the occluding surfaces of the teeth of both sides of the mouth in various jaw positions
D results in Christensen's phenomenon

1.20 When setting up teeth for complete dentures having bilateral balanced occlusion, separation of the posterior teeth during protrusion can be reduced by
A increasing the antero-posterior occlusal curve
B using teeth with a shallow cusp angle
C increasing the angle of orientation of the occlusal plane
D increasing the incisal guidance angle

1.21 Which of the following features of the masticatory system are stated by Hanau to determine the articulation of the teeth?
A condyle guidance
B incisal guidance
C interocclusal clearance or freeway space
D inclination or orientation of the occlusal plane

1.22 Porcelain denture teeth
A have a higher coefficient of thermal expansion than acrylic teeth
B have a lower abrasion resistance than enamel
C should be used where inter-alveolar clearance is small
D have a higher abrasion resistance than gold

1.23 The stability of a mandibular complete denture will be enhanced when
A the level of the occlusal plane is above the dorsum of the tongue
B the tongue rests on the occlusal surface
C the lingual contour of the denture is concave
D the posterior teeth on the denture have a broad bucco-lingual width

(Answers overleaf)

1.18 A **False** this is the sagittal condyle angle
B **True**
C **False** the Bennett angle is estimated from a protrusive occlusal record or set from lateral records
D **True**

1.19 A **False** this is a definition of free articulation
B **False** balanced occlusion refers to various jaw positions of which the retruded position is only one
C **True**
D **False** Christensen's phenomenon is the development of a wedge-shaped gap between the posterior ends of opposing occlusal rims during mandibular protrusion

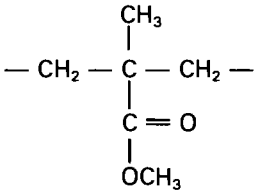
1.20 A **True**
B **False** teeth with a steeper cusp angle could be used or the effective cusp angle increased by tilting the teeth
C **True**
D **False** this would result in greater separation

1.21 A **True**
B **True**
C **False** the interocclusal clearance cannot influence articulation since the teeth are apart when the mandible is in the rest position
D **True** Hanau's five determinants also include the curvature of the occlusal surfaces (compensating curves) and the cusp height and inclination

1.22 A **False** the coefficient of thermal expansion of porcelain is much lower (7×10^{-6} per °C) than that of acrylic resin (81×10^{-6} per °C). This differential causes stress in the denture base
B **False** the abrasion resistance of dental porcelain is very high and when used for jacket crowns the porcelain may show less wear than adjacent natural teeth
C **False** acrylic teeth which have a chemical bond to the denture base should be used as they can be ground to fit the limited space
D **True**

1.23 A **False** restriction of the tongue space both vertically and laterally reduces stability
B **True**
C **False** the tongue tends to engage the concavity causing displacement
D **False** see A

1.24 Methyl methacrylate
A has a boiling point below that of water
B has a boiling point above that of water
C does not react with fully polymerized acrylic resin
D has the chemical formula



1.25 The polymer/monomer ratio for heat-cured acrylic resin
A is about 1 to 3.5 by volume
B is about 3.5 to 1 by volume
C if too low will result in excessives shrinkage
D if too high will result in granularity of the acrylic

1.26 The liquid (monomer) component of heat cured acrylic resin has the following components
A Hydroquinone
B Methyl methacrylate
C Dimethyl-*p*-toluidine
D Ethylene glycol dimethacrylate

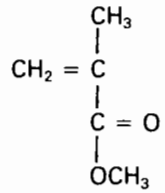
1.27 Self polymerising acrylic resins differ from heat-cured resins in that they
A have a higher molecular weight
B have a higher residual monomer content
C are more porous
D have a greater transverse strength

1.28 The advantages of cold-cured resins over heat-cured resins for the repair of acrylic dentures are
A better colour stability
B shorter processing time
C warpage of the denture is less likely
D repair of the denture can safely be carried out in the mouth

1.29 Porosity in an acrylic denture
A may result from failure to apply adequate pressure to the flask during processing
B may result from a short curing cycle with rapid temperature build up
C contraction porosity is found mainly in thicker sections of the denture
D gaseous porosity appears as small buboles evenly distributed throughout the denture

(Answers overleaf)

1.24 A **False** the boiling point of the monomer is 100.3°
B **True**
C **False** acrylic resin crazes on contact with monomer
D **False** this is the polymeric form. The monomer has the formula



1.25 A **False** see B
B **True**
C **True**
D **True**

1.26 A **True**
B **True**
C **False** dimethyl-*p*-toluidine is an activator used in self-cure resins
D **True**

1.27 A **False** the molecular weight of cold-cured materials is lower
B **True**
C **True**
D **False** the strength of cold-cured resins is about 80% of that of heat-cured

1.28 A **False** the tertiary amine used as an activator tends to oxidise resulting in poor colour stability
B **True**
C **True**
D **False** use in the mouth is contraindicated because of the possibility of mucosal irritation from free monomer and heat of polymerisation

1.29 A **True**
B **True**
C **False** contraction porosity (as in A) is diffusely distributed
D **False** gaseous porosity (as in B) is seen in the thicker sections where the polymerisation exotherm is greatest and monomer volatizes

1.30 The residual monomer level in denture bases
A is about 3% in correctly polymerised heat cured resin
B is about 0.3% in correctly polymerised heat cured resin
C is likely to be high if a short curing cycle is employed
D is higher in thick sections of acrylic than in thin sections

1.31 The bonding of denture teeth to denture base materials
A is stronger with heat-cured base materials than cold-cured materials
B is chemical when the teeth are constructed of cross-linked acrylic
C is entirely mechanical in porcelain teeth
D is weaker for lateral incisors than for canines

1.32 An anterior open occlusion (open bite) in complete dentures may result from
A the posterior of the lower occlusal rim lifting away from the mucosa during the recording of the jaw relationship
B the anterior of the lower occlusal rim lifting away from the mucosa during the recording of the jaw relationship
C the use of anterior teeth of too short a length
D interferences between the heels of the opposing casts as they are mounted on the articulator

1.33 The (occluding) vertical dimension of acrylic complete dentures may increase during processing as a result of
A a high ratio of monomer to polymer
B the resin being packed at the advanced dough stage
C an incorrect powder to water ratio in the investing plaster
D failure to coat the investing plaster with a separating agent

1.34 Split cast remounting on an articulator is carried out
A to correct occlusal errors arising during the processing of dentures
B to verify the occlusal records for study casts
C when the record of the jaw relationship is found to be incorrect
D in conjunction with a pre-centric check record

1.35 The stability of complete dentures is
A the ability to resist horizontal and rotational displacing forces
B the ability to resist vertical dislodging forces
C dependant upon an effective postdam in maxillary dentures
D increased in mandibular dentures by raising the level of the occlusal plane

(Answers overleaf)

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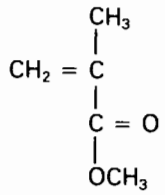

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D in conjunction with a pre-centric check record

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A the ability to resist horizontal and rotational displacing forces
B the ability to resist vertical dislodging forces
C dependant upon an effective postdam in maxillary dentures
D increased in mandibular dentures by raising the level of the occlusal plane

(Answers overleaf)

1.30 A **False** see B
B **True**
C **True**
D **False** the opposite is true since the exotherm is greater in thicker sections resulting in more complete polymerisation

1.31 A **True**
B **True**
D **True**
D **True**

1.32 A **False** this results in a posterior open bite
B **True**
C **False** the length of the teeth does not affect the dimension of the overbite
D **True**

1.33 A **False** this would result in contraction
B **True**
C **True**
D **False** separating agents are used to prevent water entering the acrylic which would result in crazing, and also to prevent monomer from entering the plaster, which would result in a rough denture surface

1.34 A **True**
B **True**
C **False** } the split cast technique uses the original plaster
D **False** } mounting bases on the articulator to verify and reproduce the jaw record. Errors in the jaw record may be corrected using a pre-centric record and new plaster mounts

1.35 A **True**
B **False** this is a definition of retention
C **False** the postdam aids retention rather than stability
D **False** lowering the level of the occlusal plane should increase stability

1.36 Pain with diffuse distribution under a mandibular complete denture is most likely to be caused by
A overextension of the denture flange
B occlusal plane too high
C occluding face height too great
D mental foramen near crest of ridge

1.37 Overdentures have the following advantages over conventional complete dentures
A Proprioception via the periodontal membrane facilitates denture control
B The minimum threshold at which loading on the denture can be detected is higher
C They are stronger and less liable to fracture
D The rate of alveolar bone resorption is reduced

1.38 Tissue conditioning materials
A should remain plastic
B should exhibit elastic recovery
C can be cleaned by immersion in alkaline peroxide denture cleansers
D can be cleaned by immersion in 0.2% aqueous chlorhexidine

1.39 Silicone resilient lining materials have the following advantages over plasticised acrylic materials
A A higher bond strength to the acrylic denture base
B They are more resilient
C They remain resilient longer
D They do not support the growth of *Candida albicans*

1.40 Denture stomatitis
A is usually associated with a sore mouth
B is usually associated with wearing a denture at night
C is more common in diabetics
D is more common in men than women

1.41 *Candida albicans*
A has a similar quantitative prevalence in dentate subjects to that in denture wearing subjects
B can be isolated more frequently from the tongue than the palate in non-denture wearers
C is inhibited by polyene antibiotics
D is dimorphic and can exist in two forms, one a budding yeast, the other a filamentous hyphal form

(Answers overleaf)

1.36 A **False** may result in localised areas of discomfort
B **False** is more likely to result in a complaint of looseness unless combined with C
C **True**
D **False** may result in localised areas of discomfort

1.37 A **True**
B **False** studies have shown that the anterior natural teeth can detect loads as low as I gram, whereas the minimum for complete denture wearers is in the region of 125 grams
C **False** overdentures are relatively thinner over the supporting teeth and this results in areas of stress concentration
D **True**

1.38 A **False** tissue conditioners must not undergo substantial permanent deformation
B **True**
C **False** this cleanser results in porosity of the tissue conditioner
D **True**

1.39 A **False** the bond strength of silicone to acrylic is weak so a cross linking adhesive agent must be used
B **True**
C **True**
D **False** both types of materials are slightly porous and thus have a tendency to encourage the growth of *Candida albicans* although some materials may have an inhibitory effect

1.40 A **False** most patients are unware of the condition. The term 'denture sore mouth' is a misnomer
B **True**
C **True**
D **False** most surveys indicate a ratio of females to males of about 2:1

1.41 A **False** it has been shown that there is a greater density of candidal colonisation in denture wearers compared with dentate subjects
B **True**
C **True**
D **True**

1.42 Mid-line fracture of a maxillary complete denture
A is usually a result of a impact fracture
B most commonly follows after about 3 years in use
C is usually a result of fatigue fracture
D can be prevented by incorporating a metal mesh strengthener within the acrylic

1.43 Plaque and partial dentures
A wearing a denture at night protects the teeth against plaque accumulation
B the introduction of a partial denture into a mouth will induce qualitative as well as quantitative changes in plaque
C plaque accumulation on lower teeth is the same with a lingual bar connector as it is with a lingual plate design
D gingival relief areas on partial dentures result in gingival enlargement

1.44 Support for a partial denture is
A the ability to withstand vertical occlusal loading
B a function of clasp arms
C the ability to resist displacement away from the supporting tissues
D a function of occlusal rests

1.45 A free end saddle partial denture
A will exert less load on the supporting mucosa if the extension of the base is reduced
B will be most effectively retained when the clasps engage undercut nearest the saddle
C will usually have a path of insertion produced by tilting the anterior part of the cast upwards on the surveyor table
D will have support more evenly distributed between teeth and soft tissues if a mucostatic impression technique is employed

1.46 The magnitude of the load transmitted by a free end saddle partial denture to the abutment teeth may be reduced by
A using teeth having a narrow bucco-lingual dimension
B using a mucocompressive impression technique
C using a mucostatic impression technique
D leaving a tooth off the saddle

1.47 The indirect retainer of a partial denture
A should resist rotatory forces about a fulcrum
B engages undercut areas
C is most effective when remote from direct retainers
D must be constructed in a metal alloy

(Answers overleaf)

1.42 A **False** impact fracture (for example in accidental dropping) is less commmon than crack propagation due to fatigue developing when the denture is in the mouth
B **True**
C **True**
D **False** metal inclusions within acrylic may result in areas of stress concentration and predispose to fracture

1.43 A **False** night time wear results in increased plaque accumulation
B **True**
C **False** lingual plates are associated with higher plaque indices than lingual bar dentures
D **True**

1.44 A **True**
B **False** clasp arms provide retention
C **False** this is a definition of retention
D **True**

1.45 A **False** the load per unit area will be increased
B **True**
C **False** the anterior part of the cast will invariably be tilted down in order that the undercut distal to the abutment teeth may be employed
D **False**

1.46 A **True**
B **True**
C **False** the loading is shared most evenly between the teeth and the mucosa when some degree of compression of the soft tissues is exerted by the impression material
D **True**

1.47 A **True**
B **False** this is a function of direct retainers
C **True**
D **False**

1.48 Lingual bars
A may be used where the distance between the incisal the mouth and the gingival margin is minimal
B are associated with less plaque accumulation than a lingual plate
C should be increased in thickness when long
D may be used to provide indirect retention

1.49 Cast cobalt chromium alloys
A contain about 30% cobalt and 60% chromium
B contain about 60% cobalt and 30% chromium
C contain molybdenum to increase the grain size
D have a melting point of 1250° to 1450°C.

1.50 Cast cobalt chromium alloys
A have a modulus of elasticity twice that of gold alloys
B are more rigid than gold alloys
C have a higher ductility than gold alloys
D have a lower proportional limit than gold alloys

1.51 Gypsum-bonded investment materials compensate for casting shrinkage in the following ways
A Setting expansion
B Loss of water of crystallisation during heating
C Hygroscopic expansion
D Thermal expansion

1.52 Clasp arms cast in cobalt chromium
A should be positioned to engage 0.25 mm (0.01 in) of horizontal undercut
B should be positioned to engage 0.5 mm (0.02 in) of horizontal undercut
C may engage deeper horizontal undercuts than gold clasps of similar proportions without permanent deformation
D exert less loading on the abutment tooth during insertion and removal than a cast gold clasp of similar proportions

1.53 The following may increase the magnitude of a force required to displace a clasp
A Increasing the length of the clasp arm
B Using an alloy with a higher modulus of elasticity
C Employing a clasp arm which is gingivally rather than occlusally approaching
D Increasing the thickness of section of the clasp arm

(Answers overleaf)

1.48 A **False** a lingual plate connector should be used in this situation
B **True**
C **True**
D **False**

1.49 A **False**
B **True**
C **False** molybdenum is included to reduce grain size
D **True**

1.50 A **True**
B **True**
C **False** the opposite is true
D **True**

1.51 A **True**
B **False** heating calcium sulphate hemihydrate results in loss of water of crystallisation which, if taken in isolation, results in shrinkage
C **True**
D **True**

1.52 A **True**
B **False**
C **False** gold has a lower modulus of elasticity and thus may be used to engage deeper undercuts
D **False** since cobalt chrome is the stiffer of the two materials it will exert the greater load

1.53 A **False** this will usually result in a more flexible, hence less retentive, clasp
B **True**
C **True**
D **True**

1.54 The following are characteristic features of the 'Every' partial denture
A Point contact between adjacent natural and artificial t...
B Tooth support rather than mucosal support
C Wide embrasures between adjacent natural and artificial teeth
D Primarily applicable to mandibular denture design

1.55 A partial denture which fits the master cast may fail to seat correctly in the mouth due to
A insufficient expansion of the investment material
B distortion of the impression
C contraction of the metal framework during casting
D failure to block out unwanted undercuts

1.56 Attrition is
A the loss by wear of tooth substance resulting from tooth brushing
B the loss by wear of tooth substance resulting from mastication and bruxism
C the dissolution of enamel after gastric regurgitation
D is usually accompanied by periodontal breakdown

1.57 Angular stomatitis
A is usually caused by faulty vertical dimension of dentures
B can be a concommitant of any oral candidal infection
C is seen mainly in adults
D may be associated with *Staphylococcus aureus*
E may be a sign of anaemia

1.58 Temporomandibular joint dysfunction is more commonly seen in
A women than men
B patients with other chronic minor illnesses
C association with radiographically detectable change
D patients over 45 years of age

1.59 Temporomandibular joint dysfunction may (it is thought) be precipitated by
A mandibular overclosure in full denture wearers
B bruxism
C intraoral osculation
D prolonged dental treatment

(Answers overleaf)

1.54 A **True**
B **False** the 'Every' design is for a mucosa-borne upper partial denture
C **True**
D **False** see B

1.55 A **False** in each case the denture would not fit the master cast
B **True**
C **False** see A
D **False** see A

1.56 A **False** this is abrasion
B **True**
C **False** this is erosion
D **False** attrition is frequently associated with low plaque levels and healthy periodontal tissues

1.57 A **False** this only increases *folds* at the angles
B **True**
C **True**
D **True**
E **True**

1.58 A **True**
B **True**
C **False** patients rarely have radiographically detectable lesions
D **False** most studies suggest a peak incidence of 20 to 30 years

1.59 A **True**
B **True**
C **True**
D **True**

1.60 Which of the following statements are/is true?
A The mental foramen may become more superficial d resorption of the alveolus but never lies on the alveo crest
B The mandible unlike other bones is spared the effects of osteoporosis
C In the mandible the maximal rate of resorption in within 1 year of extraction
D Alveoloplasty increases postoperative bone loss

(Answers overleaf)

1.60 A **False** this is a common painful complaint
B **False**
C **True**
D **False**

2 Restorative dentistry

A. Intracoronal restorations

2.1 The main object of cavity preparation is
A to decrease plaque formation
B to increase masticatory efficiency
C to prevent caries
D to prevent periodontal disease

2.2 Which permanent teeth are most susceptible to dental caries?
A Lower first molars
B Upper incisors
C Upper third molars
D Upper premolars

2.3 The floor of the occlusal portion of a Class II cavity for amalgam should be
A in enamel
B at least 2 mm into dentine
C extended to the enamel–dentine junction
D extended just beyond the enamel–dentine junction

2.4 Retention in a Class V amalgam cavity is obtained
A by grooves mesially and distally
B by undercutting all the walls
C by undercutting the occlusal and gingival walls
D by sharp internal line angles

2.5 Generally, what shape is the axial wall of a Class V cavity in a premolar as seen in transverse section?
A Straight
B Convex
C Kidney shaped
D Concave

(Answers overleaf)

Answers

A. Intracoronal restorations

2.1 A **False** The object of cavity preparation is the treatment of
B **False** caries
C **False**
D **False**

2.2 A **True**
B **False**
C **False**
D **False**

2.3 **A False** The enamel – dentine junction must be completely
B False exposed to ensure the cavity is caries free and the
C False restoration should be based on dentine. 2 mm into
D True dentine would be excessively deep

2.4 A **True** Undercuts or grooves in the mesial and distal walls
B **False** will undermine enamel and sharp internal line
C **False** angles form points of stress concentration,
D **False** weakening the tooth

2.5 A **False** The axial wall should follow the external surface
B **True** contour to avoid exposing the pulp
C **False**
D **False**

2.6 The cavo-surface line angle for an amalgam restoration may be
A 90°
B 110°
C 45°
D 135°

2.7 Pulpal trauma during cavity cutting can be reduced by
A water spray
B intermittent pressure on the bur
C using a cross cut as opposed to a plain cut bur
D using a new bur

2.8 A Black's Class I cavity may originate
A in occlusal fissures
B on lingual fissures
C in cingulum pits of anterior teeth
D on labial surfaces

2.9 Unsupported enamel should be
A reduced in height
B protected by the restoration
C finished at 90° to the tooth surface
D removed

2.10 Restoring a mesio-occlusal cavity in an upper premolar is complicated by
A the canine fossa
B the small palatal cusp
C aesthetics
D the large mesio-buccal pulp horn

2.11 The proximal portion of a minimal Class II amalgam cavity
A should always be extended into the gingival crevice
B should always be extended to just below the contact area
C should not have sharp external point angles
D should extend at least 2 mm into dentine

2.12 A matrix band used in packing a Class II amalgam restoration should
A be higher than the occlusal surface of the tooth, to allow overpacking of the amalgam
B support the marginal ridge of the restoration during packing
C fit the cervical margin of the box tightly
D provide a physiological contour for the proximal surface of the restoration

(Answers overleaf)

2.6 A **True** B **True** C **False** D **False** — Amalgam has roughly similar edge strength to enamel; a 45° cavo-surface angle would weaken the enamel and a 135° angle would leave a thin section of amalgam exposed to stress

2.7 A **True** B **True** C **True** D **True** — A and B reduce the heat build-up and C and D cut more efficiently

2.8 A **True** B **True** C **True** D **False** — Black's original definition of Class I cavities was those carious lesions arising in the pits and fissures of the teeth

2.9 A **False** B **False** C **False** D **True** — Unsupported enamel is, by definition, weak

2.10 A **True** B **False** C **True** D **False** — B and D are complete red herrings

2.11 A **False** B **True** C **True** D **False** — The cavity must clear the potentially carious area of the contact completely and sharp angles weaken the tooth by causing stress concentrations

2.12 A **True** B **True** C **True** D **True** — All are essential features of a matrix band

2.13 Ultra-speed rotary instruments should not be used
- **A** without a water spray
- **B** without a local anaesthetic
- **C** to remove soft caries
- **D** to remove unsupported enamel

2.14 A Black's Class IV cavity is
- **A** a carious lesion on the proximal surface of an incisor or canine extending as far as the incisal edge
- **B** a cavity affecting only the incisal edge of an anterior tooth
- **C** a large Class III cavity
- **D** a cavity in the proximal surface of an incisor or canine which includes the incisal angle

2.15 A Class II amalgam restoration, after carving, should
- **A** reproduce the sluiceways in the region of the marginal ridge
- **B** be just out of occlusion with the opposing tooth
- **C** have its marginal ridge at the same level as that of the adjacent tooth
- **D** reproduce the anatomical form of the tooth as nearly as possible

2.16 When amalgam is used for the restoration of a cusp
- **A** it should be supported by a pin
- **B** it should be at least 2 mm thick
- **C** the original cusp should be reduced to the level of the proximal box
- **D** it should be carved so that it is free of the occlusion

2.17 The minimal Class III cavity for a composite restoration
- **A** should be roughly triangular in outline
- **B** should extend subgingivally
- **C** should remove the proximal contact
- **D** has its direction of access determined by the position of the adjacent tooth

2.18 Leakage of saliva around teeth isolated with a rubber dam may be due to
- **A** holes which are too small
- **B** holes which are too close together
- **C** irregularities of the enamel surface at the dam margin
- **D** holes which are too far apart

2.19 What is the optimum depth for a pin hole in a tooth with a vital pulp?
- **A** 4–5 mm
- **B** 2–3 mm
- **C** Less than 2 mm
- **D** 1–1.5 mm

(Answers overleaf)

2.13 A **True**
B **False**
C **True**
D **False**
Ultra-speed instruments cut hard tissue very efficiently, but not soft caries. The use of a local anaesthetic should be the patient's choice

2.14 A **False**
B **False**
C **False**
D **True**
D is Black's original definition in that a Class IV cavity is the progression from a Class III cavity. Fractured incisal angles, in the absence of caries, are not, strictly speaking, Class IV lesions

2.15 A **True**
B **False**
C **True**
D **True**
The restoration should restore function; if there is no occlusal contact, teeth will move

2.16 A **False**
B **True**
C **False**
D **False**
Pins provide additional retention and if enough sound tooth tissue remains, a pin will not be necessary. The cusp should be reduced only to provide for 2 mm of amalgam and remove unsupported enamel. The restoration should restore function

2.17 A **True**
B **False**
C **False**
D **True**
The margin of the restoration should not be in the gingival crevice; the proximal contacts of anterior teeth are provided by the incisal corners and to remove these would lead to large restorations

2.18 A **False**
B **True**
C **True**
D **False**
The margins of the dam must adapt tightly to the tooth and will be stretched if the holes are too close together

2.19 A **False**
B **True**
C **False**
D **False**
The pin hole must provide stability and retention without jeopardising the pulp or periodontal ligament

2.20 Which of the following indicates with the greatest reliability that the pulp is non-vital?
A No response when an electric potential is applied to the enamel
B No response when gutta percha is applied to the enamel
C No response when ice crystals are applied to the tooth
D An area of radiolucency surrounding the apex of the tooth

2.21 Occlusal amalgam cavities should be prepared so that
A carious tissue only is removed
B undercuts, particularly by the marginal ridges, are provided for retention
C caries and all potentially carious sites such as pits and fissures are removed
D Cusps are undercut to provide retention

2.22 Why do you bevel the pulpoaxial line angle in a Class II inlay cavity?
A To assist withdrawal of a wax pattern
B To give greater strength in that region of the inlay
C To prevent recurrent caries
D To avoid a weak sharp edge in the investment mould

2.23 An irregularly shaped void on the surface of a gold casting would indicate that
A a fragment of investment had been carried into the mould
B air had been carried into the mould
C the burning out of wax was inadequate
D the powder/water ratio for the investment had been too high

2.24 The greatest improvement in the marginal adaptation of composite restorations is achieved by
A ensuring that the cavity is free of moisture
B good packing of the restoration
C acid etching
D maintaining pressure during setting

2.25 The main reason for localised shrinkage porosity in dental castings is
A over-heating of the alloy
B the sprue being too thin
C over-heating of the investment
D there being no reservoir

(Answers overleaf)

2.20 A **False**
B **False**
C **False**
D **True**
Vitality tests are not infallible and must be interpreted with other clinical observations

2.21 A **False**
B **False**
C **True**
D **True**
The marginal ridge would be weakened if undercut

2.22 A **False**
B **False**
C **False**
D **True**

2.23 A **True**
B **False**
C **False**
D **False**
Air inclusions would be spheroidal, wax would not remain at casting temperatures and a high powder/water ratio would give an incomplete casting due to back pressure

2.24 A **False**
B **False**
C **True**
D **False**
All these do improve adaptation but acid etching causes the greatest improvement

2.25 A **False**
B **False**
C **False**
D **True**
All will give rise to porosity but only D is localised in relation to shrinkage

2.26 Which of the following is not important in relation to the retention of Class I gold inlays?
A The length of the cavity walls
B The area of the pulpal floor
C The angulation of the cavity walls to each other
D Sharp line angles between the cavity walls and the pulpal floor

2.27 Cavo-surface angles for gold restorations
A if greater than 135°, should be bevelled
B if less than 135°, should be bevelled
C are shaped to minimise casting discrepancies
D are designed to allow burnishing of gold margins to the tooth

B. Endodontics

2.28 A root filling should reach
A to the radiographic apex
B 1 mm beyond the radiographic apex
C 1 mm short of the radiographic apex
D the dentino–cemental junction

2.29 The origin of the calcium ions in a calcific bridge over an exposure covered with calcium hydroxide is
A the calcium hydroxide
B local cell debris
C the blood stream via the pulp
D the surrounding dentine by redeposition

2.30 A satisfactory apical seal of a straight root canal can usually be obtained with
A gutta percha points and sealer
B amalgam
C a silver point alone
D a paste root filling material

2.31 The immediate treatment of an acute periapical abscess may include
A analgesics
B local dressing of the root canal with antibiotics
C drainage of the abscess via the root canal
D the administration of a local anesthetic to facilitate treatment

(Answers overleaf)

2.26 A **False**
B **True**
C **False**
D **True**

Near parallelism of walls and a single long path of insertion provide good retention

2.27 A **False**
B **True**
C **True**
D **True**

A cavo-surface angle of more than 135° is a 'natural bevel' and the gold margin may be burnished without incorporating a cut bevel in the cavity. A bevel or chamfer margin provides a 'slip joint' so that small shrinkages will not jeopardise the fit of the casting

B. Endodontics

2.28 A **False**
B **False**
C **True**
D **True**

A root filling should reach the apical constriction which, on average, is 1 mm short of the anatomical apex

2.29 A **False**
B **False**
C **True**
D **False**

The calcium hydroxide creates favourable conditions for secondary dentine formation, probably by virtue of its high pH (9–11)

2.30 A **True**
B **True**
C **False**
D **False**

Sealer is necessary to fill roughnesses in the prepared canal wall and paste fillings cannot be condensed adequately

2.31 A **True**
B **False**
C **True**
D **False**

Drainage of pus will be obstructed by antibiotics in the canal and a local anaesthetic may encourage spread of infection by mechanically breaking down tissue barriers and reducing blood supply

2.32 Extirpation of the pulp of an upper incisor with a carious exposure in a Class III cavity should be achieved
A via the exposure
B via a triangular access cavity on the palatal surface
C after restoration of the cavity
D via the proximal surface

2.33 The commonly used irrigation solutions for root canals are
A Savlon
B Normal saline
C Camphorated monochlorophenol
D Sodium hypochlorite

2.34 Which root canal of the upper first molar would you expect to be most difficult to prepare for root filling?
A Disto-palatal
B Mesio-buccal
C Disto-buccal
D Palatal

2.35 An extensive carious lesion associated with a hyperaemic pulp should normally be treated in the first instance by removing
A all the caries possible but avoiding exposure of the pulp
B all the caries and dressing any exposure produced
C the minimum of caries and dressing with a sedative
D all the caries and leaving the pulp open to drain

2.36 What are the main constituents of most root canal sealers?
A Gutta percha and zinc oxide
B Zinc oxide and an anti-inflammatory agent
C Zinc oxide and eugenol
D Zinc oxide and formocresol

2.37 In what circumstances in a pulp capping procedure indicated?
A A large carious exposure in a posterior tooth
B A small exposure in an otherwise symptomless, vital posterior tooth
C A small exposure in a non-vital tooth
D A small exposure in a vital tooth with pulpitis

2.38 The initial treatment for a periapical lesion associated with a non-vital and symptomless tooth should be
A filling the canal
B to gain access to pulp chamber and leave open to drain
C to gain access to pulp chamber and estimate the working length
D to relieve the occlusion

(Answers overleaf)

2.32 A **False** B **True** C **True** D **False**
Access cavities should be designed to permit direct access to the apical constriction. A Class III cavity would dictate bending of the instruments. The original cavity must be restored immediately to permit complete isolation of the root canal

2.33 A **False** B **True** C **False** D **True**
Camphorated monochlorphenol is a root canal dressing and Savlon might be an effective irrigant, but is not commonly used

2.34 A **False** B **True** C **False** D **False**
To enter the mesio-buccal canal, the instrument has to be passed upwards and forwards. In a small percentage of cases there are two mesio-buccal canals

2.35 A **True** B **False** C **False** D **False**
Pulpal hyperaemia is considered to be reversible after removal of the caries. The success of indirect pulp capping depends on treating the tooth in the early stages of pulp reaction and removing all infected dentine

2.36 A **False** B **False** C **True** D **False**
Whilst some root sealers contain active components such as steroids or mummifying agents, these are not common

2.37 A **False** B **True** C **False** D **False**
Successful pulp capping requires a healthy pulp. The greater the exposure and the extent of the inflammation, the less likely this is to be the case

2.38 A **False** B **False** C **True** D **True**
A tooth should be left open only when pus or exudate is draining. Mechanical preparation should be done only after the working length has been estimated

2.39 Corticosteroids are used in endodontic practice
A to reduce pulp inflammation
B to reduce pulp infection
C to treat periapical infection
D to reduce pulp symptoms

2.40 A pulp polyp may arise in connection with
A chronic open pulpitis
B pulp necrosis
C acute pulpitis
D a chronic periapical lesion

2.41 Internal resorption may follow
A trauma
B root fracture
C successful root canal filling
D enamel fracture

2.42 Which of the following may indicate periapical surgery?
A Periapical infection associated with an obliterated canal
B Crown fracture involving the pulp
C Pulp necrosis with a patent root canal
D A fractured instrument perforating the apex and preventing an apical seal

2.43 Which of the following conditions may be symptomless?
A Acute pulpitis
B Chronic open pulpitis
C Chronic closed pulpitis
D Pulp polyp

2.44 Which of the following conditions may be effectively treated with corticosteroids?
A A small traumatic exposure
B Pain from pulpitis where immediate extirpation is impossible
C A small carious exposure in a symptomless tooth
D Internal resorption

2.45 Predisposing factors to under-filling of a root canal include
A ledge formation
B lateral perforation
C apical perforation
D short length estimation

(Answers overleaf)

2.39 A **True**
B **False**
C **False**
D **True**
Corticosteroids are anti-inflammatory agents which relieve the symptoms of pulpitis but cause pulp necrosis in the long term

2.40 A **True**
B **False**
C **False**
D **False**
A pulp polyp can only arise from a vital pulp that is open to the oral environment

2.41 A **True**
B **True**
C **False**
D **True**
Internal resorption requires the presence of vital pulp tissue; trauma is believed to stimulate resorption

2.42 A **True**
B **False**
C **False**
D **True**
Apical surgery is indicated when an apical seal cannot be achieved by an orthograde approach and there is evidence of pathology

2.43 A **False**
B **True**
C **True**
D **True**
Acute pulpitis, or an acute exacerbation of chronic pulpitis, always gives rise to pain

2.44 A **False**
B **True**
C **False**
D **False**
The application of a corticosteroid relieves pain by reducing inflammation but causes necrosis of the pulp in the long term. Where vitality is to be maintained, calcium hydroxide should be used. Internal resorption should be treated by pulp extirpation

2.45 A **True**
B **True**
C **False**
D **True**
Any obstruction or off-line preparation may interfere with proper canal preparation and filling. Apical perforation predisposes to an over-fill

2.46 If a sinus is associated with chronic periapical infection of a non-vital tooth the treatment includes
A enlargement of the sinus surgically
B irrigation of the sinus
C dressing the sinus
D no active treatment for the sinus

2.47 Factors which predispose to over-filling of a root canal include
A wrong length estimation
B repeated perforation of the apical foramen
C lateral perforation
D ledge formation

2.48 Root canal treatment on a vital tooth may be indicated in association with
A acute pulpitis
B a traumatic exposure
C a pulp polyp
D the need for a post crown to restore the tooth

2.49 Mummification of the pulp may be indicated for a
A traumatic exposure of an anterior tooth with open apex
B carious exposure on a non vital tooth
C carious exposure on a vital tooth
D deep cavity on a symptomless vital tooth

2.50 The fracture of root canal instruments may be caused by
A using damaged instruments
B over vigorous instrumentation
C incorrect access to the root canal
D using a reamer that is too large

2.51 Treatment of a symptomless under-filled root canal may include
A apical surgery
B periodic observation with radiographs
C prophylactic antibiotics
D removal of the root filling

2.52 Possible contraindications for periapical surgery are
A controlled diabetes mellitus
B the danger of damage to adjacent structures
C a history of rheumatic fever
D congenital heart disease

(Answers overleaf)

2.46 A **False**
B **False**
C **False**
D **True**
The source of the infection is the root canal of the affected tooth. Complete root canal therapy removes the organisms, which are not accessible to the white blood cells, and the sinus will then heal

2.47 A **True**
B **True**
C **False**
D **False**
Lateral perforation and ledge formation are likely to lead to under-filling of the canal

2.48 A **False**
B **True**
C **True**
D **True**
A tooth with acute pulpitis is unlikely to be classed as vital

2.49 A **False**
B **False**
C **True**
D **False**
Mummification fixes vital tissue but does not sterilise infected or necrotic tissue. Calcium hydroxide should be applied in A to encourage root formation; B has no vital tissue to mummify and D requires pulp capping with calcium hydroxide

2.50 A **True**
B **True**
C **True**
D **True**

2.51 A **False**
B **True**
C **False**
D **True**
If the root filling is new and short in a fully prepared canal, it should be removed and a new one placed. In the absence of symptoms and signs of pathology over a period, no treatment is indicated

2.52 A **False**
B **True**
C **False**
D **False**
Patients with stable medical conditions should be 'treatment planned' as normal patients. Their management, however, may differ from normal; the diabetic should be treated immediately after a meal and antibiotic cover may be necessary for C and D

C. Crown and bridgework

2.53 When constructing a core for a full gold crown
A a minimum of two pins is required
B a minimum of four pins is required
C all enamel–dentine junction caries should be removed
D some staining of the enamel–dentine junction is acceptable since the crown will cover it

2.54 The walls of a full gold crown preparation should
A be parallel
B have an angle of convergence of about 10–12°
C have a taper of about 5°
D be roughened to increase retention

2.55 Cervical finishing lines of full veneer crown preparations should be placed
A just supra-gingivally whenever possible
B according to the depth of the gingival crevice
C sub-gingivally to reduce the liability of recurrent caries
D at the junction of the tooth and amalgam core

2.56 The retention of a full veneer crown is increased by
A lengthening the path of insertion
B using a chamfer instead of a shoulder finishing line
C ensuring that the path of insertion is in the long axis of the adjacent teeth
D reducing the taper of the preparation

2.57 A special tray for an elastomeric impression of crown preparations
A should allow a consistent thickness of elastomer throughout the impression
B should be slightly flexible to facilitate removal of the impression from tooth
C allows economy of impression material
D should everywhere extend into the sulcus

2.58 The indications for the provision of a porcelain jacket crown may include the restoration of
A a recent enamel/dentine fracture
B fractured incisal angles associated with large Class III restorations
C aesthetics in a patient of 14 years with tetracycline staining
D areas of erosion of enamel and dentine on the labial surfaces of incisors

(Answers overleaf)

C. Crown and bridgework

2.53 A **True** B **False** C **True** D **False**
The rule of thumb is one pin for each cusp lost, with a minimum of two for stability. Staining of the enamel–dentine junction is likely to be caries and may progress under the crown

2.54 A **False** B **False** C **True** D **False**
Absolute parallelism would give the maximum retention, but this could not be achieved accurately in the mouth. An angle of convergence of about 10° causes a rapid decrease in retention and whilst rough walls would increase retention, the technician would have difficulty in removing a pattern from the die

2.55 A **True** B **False** C **False** D **False**
The integrity of the epithelial attachment, gingiva and enamel should be preserved to maintain gingival health. The margin of the crown must be based on dentine beyond the core for stability and prevention of recurrent caries

2.56 A **True** B **False** C **False** D **True**
Retention is generated by the opposing walls of the preparation, irrespective of the finishing line. It may be necessary to have the path of insertion in the long axis of adjacent teeth but this will not increase retention

2.57 A **True** B **False** C **True** D **False**
The tray must be rigid to prevent distortion of the impression. Reproduction of the sulcus is not necessary for crown models

2.58 A **False** B **True** C **False** D **True**
The vitality of the pulp must be assured before further trauma from the preparation; at least 6 weeks should elapse. Patients under the age of 18–20 years are likely to have large pulps that would be in jeopardy in a jacket preparation

2.59 The indications for the provision of a post crown may include
- **A** the realignment of tilted anterior teeth
- **B** a root filled anterior tooth of normal appearance
- **C** the preparation for a jacket crown which would jeopardise pulp vitality
- **D** the use of the tooth as a bridge abutment

2.60 Factors in the failure of porcelain jacket crowns may be
- **A** cracks arising from flaws on the fitting surface of the crown
- **B** cracks arising from incomplete glazing of the outer surface of the crown
- **C** a short preparation, allowing porcelain to be unsupported at the incisal half of the crown
- **D** the poor adaptation caused by the presence of the platinum foil during manufacture

2.61 When considering the design for a post-crown preparation, the following should be borne in mind
- **A** a cast gold post is stronger than a wrought nickel/chromium wire of equivalent diameter
- **B** a parallel-sided post is more retentive than a tapered post
- **C** the core should be the same size that the preparation for a vital jacket crown would have been on that tooth
- **D** lateral perforations are more commonly associated with parallel sided posts than with tapered posts

2.62 When cementing a post crown
- **A** cement should be placed on the post only and not into the canal
- **B** treating the walls of the canal with EDTA increases its retention
- **C** the crown must be cemented immediately with the same mix of cement
- **D** an ethoxy benzoic acid cement is preferred to zinc phosphate

2.63 When a gold casting fails to fit on a stone die
- **A** pressure should be applied to see if it will seat completely
- **B** the inside may be eased by grinding
- **C** the stone die may be relieved by scraping
- **D** the casting should be boiled in hydrochloric acid

2.64 Gingival retraction cord for use during impression taking
- **A** may be left in situ while taking the impression
- **B** increases the likelihood of gingival recession
- **C** may be impregnated with a vaso-constrictor
- **D** may be used to control gingival haemorrhage

(Answers overleaf)

2.59 A **True** B **False** C **True** D **False**
Post crowns are not indicated just because a tooth is root-filled. Vital anterior teeth are preferred as bridge abutments to root-filled ones

2.60 A **True** B **False** C **True** D **False**
The stress applied to a porcelain crown tends to propagate cracks from the inside. If the foil is properly adapted during fabrication, adaptation of the final crown should be good

2.61 A **False** B **True** C **False** D **True**
Wrought posts are stronger and the cores should be smaller to permit a greater thickness of porcelain to be used for strength and aesthetics

2.62 A **False** B **True** C **False** D **False**
Cement must be placed in the canal as well as on the post, since cement on the post only will not reach the end of the preparation. If required, a second mix of cement for the crown is acceptable and zinc phosphate gives better retention

2.63 A **False** B **True** C **False** D **True**
The die must have its surface detail preserved at all costs

2.64 A **True** B **True** C **True** D **False**
Gingival haemorrhage is usually beyond the capability of cord. Electro-surgery may be indicated, alternatively place temporary restorations to permit healing before trying again

2.65 When considering porcelain bonded to metal restorations
- **A** the preparation is more conservative than that required for porcelain alone
- **B** a shoulder finishing line is required in all areas
- **C** where only a facing of porcelain is provided, the ceramo-metal bond is weaker than that achieved with total porcelain coverage
- **D** metal sub-frames with a low gold content provide less consistent bonding to porcelain

2.66 When considering the use and preparation of a partial (3/4) veneer crown the following points should be considered
- **A** the restoration conserves some of the natural appearance of the tooth
- **B** the casting lacks rigidity and therefore the preparation should include proximal and occlusal grooves
- **C** the restoration cannot be constructed in porcelain bonded to metal
- **D** a disc provides the correct shape for the proximal reductions of the preparation

2.67 A bridge or precision-retained partial denture may be indicated
- **A** to prevent further disruption of the occlusion
- **B** for patients with a high caries incidence
- **C** to relieve temporomandibular joint/myofacial pain dysfunction syndrome
- **D** to splint teeth that have lost bone support due to periodontal disease

2.68 A temporary bridge constructed from a synthetic resin
- **A** should restore the occlusion to the same extent as the permanent bridge
- **B** is not required when the missing tooth is provided on a partial denture
- **C** should have the same buccal and lingual contours as the permanent bridge
- **D** should be cemented with a polycarboxylate cement to ensure retention between the preparation and fitting stages

(Answers overleaf)

2.65 A **False** The preparation is more radical to permit layers of
B **False** metal and porcelain to be accommodated within the
C **False** original tooth contour. A shoulder is only required
D **True** in the areas on direct view and low gold alloys exhibit bonding at least as good as that obtained with high gold alloys

2.66 A **True** A 'sliced' mesial reduction will expose more gold to
B **True** direct view in comparison with a 'feathered' edge
C **True** which can be achieved with a fine tapered diamond
D **False** instrument

2.67 A **True** Active caries and existing periodontal disease and
B **False** bone loss contraindicate advanced conservation. A
C **True** multi-unit casting of which a bridge forms part may
D **False** be used as a splint

2.68 A **True** The abutment teeth must be locked in the position
B **False** recorded by the impression; the denture tooth
C **False** should be removed and a temporary bridge used.
D **False** Bulbous contours of synthetic resin are required for strength and a temporary cement should be used to permit easy removal

2.69 When making pontics for bridges
A the model should be relieved to provide adaptation to the soft tissues
B the shape and size of the occlusal surface should reproduce that of the missing tooth
C the connecting solder should extend from the occlusal surface to the gingival margin to provide a broad area of attachment for strength
D it is best to avoid occlusal contacts to reduce the stress on the abutments

2.70 When providing a bridge to replace an upper right canine in an otherwise sound mouth with a canine guided occlusion
A a suitable design would be a fixed-fixed bridge $\underline{4\text{–}2|}$
B the occlusion should be reproduced by the bridge
C the bridge should incorporate the upper premolars and provide group function
D a cantilever design should not be used because of the likely stress on the soldered joint

2.71 An intra-coronal inlay without occlusal coverage is suitable for a bridge retainer and
A may be used in a fixed-fixed design
B should always be a mesio-occlusal-distal restoration
C may be used in 6 as part of a bridge $\overline{654|}$
D only requires a bevelled margin when the cavo-surface angle is less than 135°

2.72 A spring cantilever bridge should be considered to replace $\underline{1|}$ when
A there is spacing between the anterior teeth
B there is a steep vault to the palate
C there is overeruption of $\overline{21|12}$
D the $\underline{54|}$ are heavily restored

D. Conservation materials

2.73 Tin is incorporated in conventional silver amalgam alloy to
A reduce setting expansion
B produce more gamma-1 phase
C increase the compressive strength
D increase the tensile strength

2.74 The main constituent of a conventional silver amalgam alloy is
A Ag_3Sn
B AgSn
C Ag
D Ag_2Hg_3

(Answers overleaf)

2.69 A **True** The pontic must restore function and maintain the
B **False** relationships of the opposing teeth but
C **False** the occlusal area is smaller to reduce stress. The
D **False** solder must be shaped to permit flossing and avoid the gingival margin

2.70 A **False** 2 has insufficient root area to be an end abutment
B **False** for the bridge. To reduce the stress on the bridge,
C **True** the canine guidance must be converted to group
D **False** function and in doing this, a soldered cantilever design is correct

2.71 A **False** Cementation failure is probably due to occlusal
B **True** loading on the unprepared cusps not being
C **False** transferred to the bridge. If a proximo-occlusal inlay
D **True** were used, the life of the bridge might be shortened by caries of the uncut proximal surface. The inlay should be a minor retainer and is therefore not correct for the molar

2.72 A **True** The bar requires support from a shallow, flat palate
B **False** and with over-eruption there would be no space for
C **False** the bar. Heavily restored teeth may not have
D **False** healthy pulps and should be avoided, if possible, in bridge designs

D. Conservation materials

2.73 A **True** Gamma-1 is the silver-mercury phase; tin weakens
B **False** the final amalgam
C **False**
D **False**

2.74 A **True**
B **False**
C **False**
D **False**

2.75 Zinc phosphate cement powder may contain
A zinc oxide
B zinc phosphate
C zinc polycarboxylate
D magnesium oxide

2.76 Mechanical trituration of amalgam
A generates heat
B results in a 1:1 final mercury: alloy ratio in the set material
C reduces the risk of mercury contamination
D increases the hardness of the set amalgam

2.77 The compressive strength of zinc oxide-eugenol cements may be increased by
A ortho-ethoxybenzoic acid
B polystyrene
C zinc acetate
D silicon dioxide

2.78 Copper is incorporated in conventional silver amalgam alloy
A to increase the hardness
B to increase the edge strength
C to increase the compressive strength
D to decrease the setting expansion

2.79 Dynamic creep is
A the spread of amalgam during packing
B the deformation of set amalgam during function
C the process whereby alloy is 'wetted' by mercury
D the continuing alloying between silver–tin alloy and mercury during the life of the restoration

2.80 In comparison with conventional amalgam, the inclusion of silver-copper spheres in a high copper alloy
A reduces the creep of the set amalgam
B increases the condensation pressure required
C increases the corrosion resistance
D requires matrix bands to be wedged tightly

2.81 Zinc phosphate cement sets
A by the formation of hydrated zinc phosphate
B by the formation of hydrated zinc oxide
C with the evolution of heat
D by losing water

(Answers overleaf)

2.75 A **True**
B **False**
C **False**
D **True**

2.76 A **True**
B **False**
C **True**
D **False**

The mercury-alloy ratio is determined before mixing and the method of mixing will not change it. Mechanical mixing has little or no influence on the strength of the amalgam

2.77 A **True**
B **True**
C **False**
D **True**

Zinc acetate is an accelerator for ZOE cements

2.78 A **True**
B **True**
C **True**
D **False**

Copper, in general, improves the physical properties but causes an increase in setting expansion

2.79 A **False**
B **True**
C **False**
D **False**

Creep is a time-dependent permanent deformation

2.80 A **True**
B **False**
C **True**
D **True**

The presence of spherical particles causes the amalgam to handle in a similar manner to conventional spherical amalgam. Less condensation pressure is required

2.81 A **True**
B **False**
C **True**
D **False**

All the water of reaction is taken up in hydration of the zinc phosphate

2.82 In comparison with other bases plain zinc-oxide eugenol cements
A only set in contact with water
B have a high compressive strength
C have a long setting time
D have a higher thermal conductivity than dentine

2.83 Which of the following would result in a decreased setting time for amalgam?
A Increasing the mercury:alloy ratio from 5:5 to 6:5
B Using spherical particle amalgam alloy
C Using coarse grained amalgam alloy
D Reducing the trituration time

2.84 The pH of zinc phosphate cement when fully set is
A 3–4
B 6–7
C 8–9
D 4–5

2.85 The filler in a composite filling material may be
A quartz
B barium glass
C organo-silane
D alumino-silicate glass

2.86 Composite restorative materials in comparison with acrylic have
A lower compressive strength
B higher abrasion resistance
C a lower coefficient of thermal expansion
D higher polymerisation shrinkage

2.87 Composite restorative materials in comparison with silicate cement have
A a longer working time
B a shorter setting time
C a smaller setting contraction
D a higher water uptake

2.88 Copal ether varnish may be used to
A prevent water absorption by glass ionomer cement
B reduce microleakage around composite materials
C prevent water loss from silicate cements
D prevent discolouration of silicate cement

(Answers overleaf)

2.82 A **True**
B **False**
C **True**
D **True**
ZOE cement will not set in a desiccator; often a metallic hydroxide may be incorporated in the powder to provide water. Reinforcing agents are incorporated to provide an adequate compressive strength for the material's role as a base and dentine is a better insulator than most lining materials

2.83 A **False**
B **True**
C **False**
D **False**
A 'wet' amalgam will set more slowly as will a coarse grained alloy — there is a smaller surface area to the volume of alloy in comparison with spherical particles. Over-triturated amalgam sets more rapidly

2.84 A **False**
B **True**
C **False**
D **False**
Whilst the pH is 3–4 on insertion, when fully set, the material is almost neutral. This takes 28 days

2.85 A **True**
B **True**
C **False**
D **False**
Organo-silane is the coupling agent between the filler and the resin and alumino-silicate glass is a component of glass ionomer cement

2.86 A **False**
B **True**
C **True**
D **False**

2.87 A **False**
B **True**
C **True**
D **False**

2.88 A **True**
B **True**
C **True**
D **False**
Copal ether varnish should be applied to glass ionomer cements to prevent water uptake between the initial set and the final set. It may be used as a cavity varnish and should be applied to silicate cement if restorations of that material are isolated during subsequent operations

2.89 Composites are currently used as tooth coloured restorative materials instead of silicate cements because of their
A higher compressive strength
B greater resistance to recurrent caries
C better colour stability
D ability to remain unaffected by oral fluids

2.90 Water absorption by the composite materials results in
A expansion
B discolouration
C increased surface roughness
D decreased strength

2.91 The liquid supplied for a cold-curing direct filling acrylic material may contain
A ethylene glycol dimethacrylate
B tertiary amine
C benzoyl peroxide
D hydroquinone

2.92 Composite restorations may be finished with
A aluminium oxide coated discs
B diamond burs
C steel finishing burs
D smooth tungsten carbide (Baker-Curson) burs

2.93 Polysulphide rubber impression materials set with the formation of
A ethyl alcohol
B water
C heat
D insoluble lead compounds

2.94 The fabrication of dies from elastomeric impressions of inlay cavities may be achieved by
A deposition of metal by electrolysis
B condensing amalgam into the impression
C making a stone cast of the cavity
D spraying a low fusing alloy into the impression

2.95 High copper amalgams
A may contain a dispersed tin/copper eutectic before mixing
B do not form gamma-2 phase on setting
C have higher creep values than conventional silver amalgam
D should be used with a 1:1 mercury/alloy ratio

(Answers overleaf)

2.89 A **False** The compressive strengths of the two materials are
B **False** very similar and silicate restorations inhibit
C **True** recurrent caries by the diffusion of fluoride to the
D **True** surrounding enamel

2.90 A **True** Surface roughness only occurs following abrasion
B **True**
C **False**
D **True**

2.91 A **True**
B **True**
C **False** Benzoyl is usually blended with the polymer
D **True** powder

2.92 A **True**
B **True**
C **False** Steel is abraded by composite and will therefore
D **True** discolour the surface

2.93 A **False** Ethyl alcohol is formed during the setting of Type I
B **True** silicones
C **True**
D **True**

2.94 A **True**
B **False** Condensation of amalgam would cause distortion of the impression
C **True**
D **True**

2.95 A **False** The eutectic is silver/copper and the creep values of
B **True** high copper amalgams are lower
C **False**
D **True**

2.96 Dimensional changes influence the construction of an indirect inlay. Which of the following occur?
A Setting shrinkage of the impression rubber
B Setting shrinkage of the model stone
C Thermal expansion of the inlay gold
D Water absorption by the investment after its final set

2.97 Type I silicone rubber impression materials set with the formation of
A ethyl alcohol
B water
C cross-linked polymer chains
D insoluble lead compounds

2.98 Casting investments used for inlay golds contain
A silica
B gypsum
C ethyl silicate
D alumina

2.99 Which of the following are appropriate for use as tooth conditioners before the placement of glass ionomer cement?
A 30% orthophosphoric acid
B 50%citric acid
C 10 volume hydrogen peroxide
D 50% polyacrylic acid

2.100 Composite materials containing a microfine filler in comparison with conventional filler
A in general, have a higher filler content
B can be polished to achieve a smoother surface
C have a higher water absorption
D cannot be cured by external energy because of the filler composition

2.101 Type II silicone rubber impression materials
A evolve hydrogen when cast if they are not fully cured
B set by condensation polymersation
C exhibit a very low setting shrinkage
D have a lower tear resistance than polysulphide rubbers

2.102 Metal dies, formed by electro deposition, can be made from impressions taken in
A polysulphides
B silicones
C polyethers
D reversible hydrocolloids

(Answers overleaf)

2.96 A **True** The model stone expands on setting and
B **False** investment materials only absorb water before their
C **True** final set is reached
D **False**

2.97 A **True** See question 2.22
B **False**
C **True**
D **False**

2.98 A **True** Ethyl silicate is a binding agent for high
B **True** temperature investments; alumina is not refractory
C **False**
D **False**

2.99 A **False**
B **True**
C **True**
D **False**

2.100 A **False** Because of difficulties in manufacture, a minimum
B **True** of 65% filler has been achieved with microfine
C **True** materials
D **False**

2.101 A **True** They set by addition polymerisation
B **False**
C **True**
D **True**

2.102 A **True** Polyethers and hydrocolloids would absorb water
B **True** during plating
C **False**
D **False**

3 Orthodontics and children's dentistry

3.1 Buccal canine retractors are used in preference to palatal cantilever springs when
A the canine is labial to the arch
B the canine is partially erupted
C the canine is distally inclined
D the canine is disto-labially rotated
E the canine is transposed

3.2 Lower removable appliances are generally less satisfactory than their upper counterparts because
A the buccal undercut is less accessible on $\overline{6|6}$ than $\underline{6|6}$
B $\overline{3|3}$ are usually distally inclined
C $\overline{3|3}$ are usually mesially inclined
D low labial bows are not retentive in the lower arch
E lower incisors are usually imbricated where $\overline{4|4}$ are extracted

3.3 Adams cribs can fracture in use if
A the wire is too soft
B the wire is too hard
C the tags are high on the bite
D the baseplate is too thick
E the arrowheads are too small

3.4 An anterior bite plane should be trimmed so that
A it is inclined at 10° to the occlusal plane
B it is inclined at 30° to the occlusal plane
C the posterior teeth are kept 5 mm apart
D the posterior teeth are kept 2 mm apart
E there is free lateral excursion without occlusal interference

3.5 Which of the following can be classified as a myofunctional appliance?
A An anterior bite plane
B Begg appliance
C Andresen appliance
D Extra-oral appliance
E Oral screen

(Answers overleaf)

Answers

3.1 A **True**
B **False** cannot be engaged satisfactorily
C **False** requires fixed appliance treatment
D **False** requires fixed appliance treatment
E **False** irrelevant

3.2 A **True**
B **False** they are usually mesially inclined
C **False** this aids retention via the activated springs
D **True**
E **False** irrelevant

3.3 A **False** will bend easily but not fracture
B **True**
C **True**
D **False**
E **False**

3.4 A **False** should be either parallel to the occlusal plane or at right angles to the lower incisal axes
B **False** should be either parallel to the occlusal plane or at right angles to the lower incisal axes
C **False** too great
D **True**
E **False** has never been proposed

3.5 A **True** as 21/12 are slightly intruded
B **False** this is a fixed appliance
C **True**
D **False** does not use muscle forces
E **True**

3.6 Which of these would you expect of find in a severe Class II/1 case?
A An ANB angle of +8°
B An ANB of −8°
C An ANB of +2°
D A Frankfort/Mandibular angle of >35°

3.7 The corrected incisor relationship on a lateral skull radiograph is
A the incisor relationship that can be expected after treatment
B useful for serial growth studies
C an aid to skeletal assessment
D used for determining Angle's classification
E none of the above

3.8 Which of the following gives the best description of erupted permanent teeth typically seen in a 9-year old?
A Only 1/1
B $\frac{\quad | \; 6}{6\,2\,1 \mid 1\,2\,6}$
C $\frac{7\,6\,4\,2\,1 \mid 1\,2\,4\,6\,7}{7\,6\,4\,2\,1 \mid 1\,2\,4\,6\,7}$
D $\frac{6\,2\,1 \mid 1\,2\,6}{6\,2\,1 \mid 1\,2\,6}$
E Only $\frac{6 \mid 6}{6 \mid 6}$

3.9 First permanent molars begin to calcify at
A 6 months intrauterine life
B at birth
C before deciduous incisors
D about 1 year after birth
E 3 years of age

3.10 The Frankfort plane joins
A nasion and porion
B anterior nasal spine and pogonion
C porion and orbitale
D orbitale and posterior nasal spine
E ala of nose and tragus

3.11 Supernumerary teeth are found in the upper anterior region where they frequently lie
A palatal to $\frac{1}{1}$
B distal to $\frac{1}{1}$
C distal to $\frac{2}{2}$
D between $\frac{1}{1}$ roots
E buccal to $\frac{1}{1}$

(Answers overleaf)

3.6 A **True**
B **False** a severe Skeletal Class III
C **False** within range of Skeletal Class I
D **False** unrelated to antero-posterior relationship of the arches

3.7 A **False** tooth position depends on other factors such as soft tissues
B **False**
C **True**
D **False** Angle's classification is based on molar occlusion
E **False**

3.8 A **False**
B **False**
C **False** 7's seldom erupt before 12 years
D **True**
E **False**

3.9 A **False**
B **True**
C **False**
D **False**
E **False**

3.10 A **False**
B **False**
C **True**
D **False**
E **False**

3.11 A **True** particularly applies to tuberculate supernumeraries
B **False**
C **False**
D **True** usually of conical supernumeraries
E **False** the majority are palatal

3.12 An initial contact between malposed teeth in a child aged 8 can lead to
A pain
B an abnormal path of mandibular closure
C a traumatic occlusion
D movement of the malposed teeth
E the development of a close bite

3.13 Which of the following are typical consequences of dental crowding, assuming no primary teeth have been lost prematurely
A Overlapping of lower incisors
B Palatal displacement of upper canines
C Impaction of $\overline{5|5}$ between $\overline{4|4}$ and $\overline{6|6}$
D 7 7 erupting buccal to the line of the dental arch
E Rotation of $\underline{6|6}$

3.14 To 'tongue to lower lip' swallow is more commonly seen in cases where
A the lips are competent
B there has been early loss in the labial segment
C the Frankfort/mandibular planes angle is low
D the lower incisors are retroclined
E the lips are incompetent

3.15 Which show a greater incidence of class III than the general population?
A Patients with ectodermal dysplasia
B Patients with cleft palate
C Achondroplastic dwarfs
D Patients with fibrous dysplasia

3.16 A retained lower deciduous incisor will usually:
A deflect the permanent tooth labially
B deflect the permanent tooth lingually
C cause ankylosis of the underlying permanent tooth
D cause impaction of the underlying permanent tooth
E cause dilaceration of the underlying permanent tooth

3.17 Which one of the following does not lie on the mandible?
A Pogonion
B Gnathion
C Menton
D 'B' point
E Porion

(Answers overleaf)

3.12 A **True**
B **True**
C **True**
D **True**
E **False**

3.13 A **True**
B **False** crowded canines are buccally displaced
C **False** this can only follow loss of E E
D **True**
E **False** follows loss of E E

3.14 A **False**
B **False**
C **False**
D **False**
No evidence
E **True**

3.15 A **False**
B **True**
C **True**
D **False**

3.16 A **False**
B **True**
C **False**
D **False**
E **False**
no evidence

3.17 A **False**
B **False**
C **False**
D **False**
E **True**

3.18 Between 11 and 14 years incompetent lips
A become more incompetent
B become more everted
C tend to be held together more
D upright the lower incisors
E show no significant changes in form or behaviour

3.19 In the context of orthodontics, morphology means
A behaviour during function
B shape and size
C relationship
D development

3.20 In a patient with competent lips together at rest, the lip line is opposite the tips of the upper incisors. The lip line is then described as:
A high
B low
C incomplete
D competent
E average

3.21 Would you bend the wire to activate a correctly made palatal canine retractor
A between the coil and its insertion into the base of the plate
B by opening out the coil
C between the coil and the tooth but close to the coil
D between the coil and the tooth but close to the tooth
E midway between (C)and (D)

3.22 If the incisor overjet increases during treatment of a Class II/1 case you may be seeing
A loss of anchorage
B loss of retention (fixation)
C collapse of the lower arch
D unfavourable growth

3.23 A boy aged 14 years attends with a Class I malocclusion in which there is mild crowding in the upper arch and moderate incisor imbrication in the lower labial segment. C|C are retained but radiographs show these teeth to have had half their roots resorbed by 3|3 which are slightly palatally misplaced. Would you
A Wait another 6 months to see if C|C are shed naturally
B Extract C|C and wait for 3|3 to erupt
C Extract $\frac{4C|C4}{4\ |\ 4}$ and fit an upper appliance to maintain space while awaiting eruption of 3|3
D Arrange for C|C to be removed and 3|3 surgically exposed
E Extract C|C and 4|4 to make space for the eruption of 3|3

(Answers overleaf)

3.18 A **False**
B **False** no evidence
C **True**
D **False** although lower incisors tend to become more upright during this time no evidence exists to implicate soft tissue behaviour as a cause
E **False**

3.19 A **False**
B **True**
C **False**
D **False**

3.20 A **False** the average is half way up the labial surface of the incisor
B **True**
C **False** } these terms do not apply to lip line
D **False** }
E **False** }

3.21 A **False** should be insufficient space in correctly made spring
B **False** will hasten fracture in use
C **True**
D **False** will introduce a dramatic change in the direction of retraction
E **False** but if incorrectly positioned and you may attempt to correct the direction of the applied force by adjustment in this region

3.22 A **True**
B **False**
C **False** lower incisors do not change their labio-lingual position significantly unless actively retracted
D **False** growth is never so unfavourable as to produce this effect

3.23 A **False** something is already wrong, there is no point in delaying
B **False** 3|3 are short of space in which to erupt (arch is crowded)
C **True**
D **False** (a) space must be provided in addition to C|C (b) exposure not required as 3|3 are resorbing C|C
E **False** what about lower arch crowding?

3.24 If a stainless steel spring is repeatedly flexed below its elastic limit
A it shows no change in structure
B it may eventually fatigue
C it will work harden
D the grain size will be reduced
E the grain structure will become fibrous

3.25 The 18/8 stainless steel used in orthodontic wire contains
A 18% iron: 8% nickel
B 18% nickel: 8% chromium
C 18% chromium: 8% nickel
D 18% chromium: 8% cobalt
E 18% nickel: 8% cobalt.

3.26 An appropriate wire size for the fabrication of palatal canine springs would be
A 0.3 mm
B 0.7 mm
C 0.6 mm
D 0.5 mm

3.27 Which of the following is *not* found in flux for soldering stainless steel
A Borax
B Boric acid
C Magnesium carbonate
D Potassium fluoride

3.28 The main form of iron carbide found in 18/8 stainless steel is
A martensite
B austenite
C ferrite
D pearlite

3.29 If stainless steel wire used in making orthodontic springs is heated to red heat
A it becomes brittle if quenched
B its properties improve
C it becomes softened
D it will acquire an inert layer of chromium oxide
E it becomes brittle if allowed to cool slowly

(Answers overleaf)

3.24 A **True**
B **True**
C **False** requires plastic deformation
D **False** only follows cold working and heat treatment
E **False** already possesses this

3.25 A **False**
B **False**
C **True**
D **False**
E **False**

3.26 A **False** too flexible
B **False** too rigid
C **True** if large coils are used
D **True** the most usual size of choice

3.27 A **False**
B **False**
C **True**
D **False**

3.28 A **False**
B **True**
C **False**
D **False**

3.29 A **False**
B **False**
C **True**
D **False** already present
E **False**

3.30 Model plaster (white) used to cast study models before mixing with water, is largely composed of
A $CaCO_3$
B CaO
C $(CaSO_4)_2H_2O$ which is $CaSO_4.\frac{1}{2}H_2O$
D $CaSO_4.CaCO_3$

3.31 Which of the following is found in a solder suitable for stainless steel?
A Silver
B Aluminium
C Copper
D Iron

3.32 Compared with tipping movements produced by removable appliances, teeth retracted bodily by means of fixed appliances
A move more slowly
B move more quickly
C have a higher incidence of root resorption
D require higher forces
E show evidence of hypercementosis

3.33 Stationary anchorage refers to anchor teeth which
A are banded
B cannot move
C are not free to tilt
D are supported by extra-oral forces
E gain anchorage from their opponents

3.34 The lag phase of tooth movement is caused by the time taken for
A hydrostatic changes in periodontal membrane
B periodontal fibres to be elongated
C hyalinisation to be removed
D new periodontal fibres to form

3.35 The appropriate force level for tipping a single rooted tooth lies between
A 10 and 12 grams
B 20 and 50 grams
C 50 and 70 grams
D 70 and 100 grams
E 100 and 150 grams

(Answers overleaf)

3.30 A **False**
B **False**
C **True**
D **False**

3.31 A **True**
B **False**
C **True**
D **False**

3.32 A **False** similar rates can be achieved
B **False** similar rates can be achieved
C **False** no evidence
D **True**
E **False**

3.33 A **False** banded teeth are still free to tilt unless specific steps are taken to prevent this
B **False** but when prevented from tilting their movement is greatly reduced
C **True**
D **False**
E **False**

3.34 A **False** these take place quite rapidly during first few hours
B **False**
C **True**
D **False**

3.35 A **False** rate of movement will be less than optimum
B **True**
C **False**
D **False**
E **False**
no increase in rate of movement is achieved but there is increased likelihood of anchorage loss

3.36 An upper incisor inside the bite should be treated
A before 7 years (dental age)
B as soon as the maxillary premolars first can be clasped
C at 12 years to keep treatment to a minimum
D as soon as possible
E before root growth is complete

3.37 Anterior bite planes should be adjusted so that in occlusion the first molars are
A just touching
B 1 mm apart
C 2–3 mm apart
D 4–5 mm apart

3.38 Which of the these may adversely affect the outcome of removable appliance treatment of a Class II division 1 malocclusion?
A Incompetent lips
B Thumb habit
C Skeletal 2 base
D Average FM angle
E Short upper lip

3.39 To produce a stable correction of an upper labial segment in linguo occlusion it is essential to
A use fixed appliances
B have adequate overbite
C treat during growth
D use posterior capping

3.40 Overbites must be reduced during the first stage of Class II/1 treatment to
A prevent traumatic overbite
B disengage buccal cusps
C allow lower space to close
D permit full overjet reduction

3.41 Where a Class II division 1 malocclusion is seen on a skeletal 1 base the incisor malocclusion is likely to be due to
A crowding
B soft tissue factors
C an increased ANB angle
D unusual maxillary incisor crown/root angles

(Answers overleaf)

3.36 A **False** upper incisors will not have erupted
B **False** D|D can be clasped
C **False** delay to this age often complicates and lengthens treatment
D **True**
E **False**

3.37 A **False** no overbite reduction will occur as molar eruption is prevented
B **False** molar contact will soon be re-established
C **True**
D **False** excessive for patient comfort

3.38 A **False** these invariably adapt
B **False** usually given up without problems
C **True**
D **False**
E **False** irrelevant to stability

3.39 A **False** proclination by removable appliances is frequently all that is required
B **True**
C **False** adult treatment is quite feasible
D **False** upper incisor teeth can be proclined without this

3.40 A **False**
B **False** of which teeth and why?!!
C **False** who said anything about lower spacing?
D **True**

3.41 A **False** crowding does not cause an increased overjet
B **True**
C **False** this indicates a skeletal 2 base
D **False** no evidence

3.42 Which of the following factors may contribute to the severity of the incisor overbite in Class II/2 malocclusion
A lip activity
B overclosure
C the A P dental base relationship
D the degree of lower crowding
E the reduced lower face height

3.43 In most Class II/2 cases the lower lip when at rest is
A just below the upper incisors tips
B just above the upper incisor tips
C half way up upper incisor crowns
D more than halfway up the upper incisor crowns

3.44 Upper arch crowding in Class II/2 cases may be seen as
A buccal occlusion of first premolars
B labial crowding of lateral incisors
C impacted first molars
D palatal misplaced canines

3.45 The removal of 7|7 in preference to 4|4 is indicated
A in some mild Class II Div.1 cases
B in adult patients
C when a quick result is required as good co-operation is unlikely
D when 8|8 are congenitally absent
E when 6|6 are inclined distally

3.46 When 3|3 are being moved distally into 4|4 extraction spaces, 21|12 will space out:
A if the appliance carries a short labial bow with tags passing distal to 2|2
B if the interdental spurs of acrylic are carefully trimmed away
C because of lip pressure
D if there is an anterior bite plane
E only if buccal canine retractors are used

3.47 A patient aged 8 years attends with a Class I incisor relationship, imbricated upper and lower incisors and D| and |D recently extracted due to caries. All remaining teeth are of good prognosis although the deciduous molars are restored. Would you
A await eruption of premolars and review
B arrange to extract $\frac{C|C}{C|C}$
C fit space maintainers
D extract $\frac{|D}{D|}$

(Answers overleaf)

3.42 A **False**
B **False**
C **True**
D **False** no effect on overbite
E **True**

3.43 A **False**
B **False**
C **False**
D **True**

3.44 A **True**
B **True**
C **False**
D **False**

3.45 A **True**
B **False**
C **False** good co-operation with headgear usually required
D **False** extraction of 7|7 contraindicated
E **False**

3.46 A **False** appliance design prevents this
B **True**
C **False** no evidence
D **False**
E **False**

3.47 A **False** centre lines will become displaced
B **False** inappropriate
C **False** contraindicated in a caries prone mouth
D **True** balances early loss

3.48 A Class II/1 malocclusion with a severe Skeletal 2 base is treated conventionally using removable appliances. The lower incisor and Frankfort/mandibular planes angles are typical values. The result after full overjet reduction will be
A a Class I incisor relationship
B a Class II/1 incisor relationship
C bimaxillary retroclination
D a Class II/2 incisor relationship
E an increased interincisal angle

3.49 'Difficult cases' are often more successfully treated with fixed appliances than removable appliances because
A they cannot be taken out by the patient
B they apply greater forces
C they do not lose anchorage
D they can perform a wider range of movements
E many movements can be carried out simultaneously

3.50 Which of the following would suggest to you that anchorage was being lost during retraction of canines into 4|4 spaces in the treatment of a Class II/1 case which required no lower arch treatment?
A The canine relationship unchanged but |35 space closing
B Molar relationship unchanged
C Molar relationship becoming more Class II
D Overjet increasing
E Upper incisors becoming spaced

3.51 The extraction of upper first molars may be indicated
A when the removal of 4|4 provides insufficient space
B where they are rotated
C when their prognosis is poor
D when 5|5 are palatally placed
E to provide space for the eruption of 7|7

3.52 The purpose of post-treatment retention of an orthodontic case is
A to allow bony changes
B to prevent tongue thrusting
C to let the patient get used to the new functional position of the teeth
E to encourage space closure

(Answers overleaf)

3.48 A **False** not possible on a Skeletal 2 base without fixed appliance therapy
B **False** the overjet is fully reduced
C **False** lower incisor angle average
D **True**
E **True**

3.49 A **False** a determined patient can easily damage a fixed appliance
B **False** greater than what?
C **False** anchorage is just as easily lost
D **True**
E **True**

3.50 A **True**
B **False**
C **True**
D **True**
E **False**

3.51 A **False** because of anchorage problems extraction of $\underline{6|6}$ provides less space than $\underline{4|4}$
B **False**
C **True**
D **False**
E **False** $\underline{7|7}$ always erupt regardless of crowding

3.52 A **True**
B **False** tongue thrusts do not follow tooth movement
C **False** no evidence
D **True**
E **False** retaining appliances usually interfere with space closure

3.53 You are examining a case with a Class III incisor relationship (reverse overjet of 3 mm). Which of the following could contribute to a poor prognosis?
A Forward path of closure
B Crowding in the lower arch
C Reduced overbite
D Retroclined $\underline{2|1|2}$
E Absence of $\overline{8|8}$

3.54 Most Class III incisor occlusions have
A reversed (negative) overjets
B competent lips
C open bites
D skeletal III bases

3.55 Which of the following is not appropriate for incisor retraction?
A a Roberts retractor
B a divided labial bow (split labial bow)
C a self straightening wire
D an undivided labial bow
E an apron spring

3.56 In response to a single force applied to their crowns, upper incisor teeth typically tip about points which are
A located at their apices
B within the apical 1/3 of root
C within the middle 1/3 of root
D within the coronal 1/3 of root

3.57 If the coil and tag of a palatal retractor are placed too far distally
A the baseplate will be weakened
B tooth movement will be slowed
C the tooth will tend to be moved bucally
D the tooth will tend to be moved palatally

3.58 Incompetent lip morphology may be associated with
A an increased face height
B a lisp
C flaccid lips
D enlarged adenoids
E a tooth together swallow

(Answers overleaf)

3.53 A **False** once this is eliminated the sagittal discrepancy is reduced
B **False** once crowding is relieved the most labially positioned teeth tend to drop lingually
C **True**
D **False** proclination of 21|12 will not be accompanied by a reduction of the overbite
E **False** irrelevant

3.54 A **False** Class III incisors include mildly reduced overjets/overbites
B **False** no evidence
C **False**
D **True**

3.55 A **False**
B **False** } quite suitable
C **False**
D **True** this is far too rigid to apply appropriate force levels
E **False** quite suitable

3.56 A **False**
B **False**
C **True**
D **False**

3.57 A **False** strength is not dependent on this
B **False** the rate of movement is not dependent on this
C **True**
D **False**

3.58 A **True**
B **False**
C **False** } no evidence
D **False**
E **False**

3.59 Which of the following is a valid indication for the use of fixed appliances?
A Correction of rotations
B Bodily retraction of incisors
C Extrusion of unerupted teeth
D For a patient who has proved to be unreliable about wearing removable appliances
E Where many teeth require alignment in one arch

3.60 At some time, thumb sucking is noted in
A under 10%
B 10–50%
C over 50% } of pre-school children
D all

3.61 Unilateral buccal crossbite may be associated with
A bottle feeding in infants
B enlarged adenoids
C skeletal III dental base relationship
D |2 in lingual occlusion
E endogenous tongue thrust

3.62 Which of the following is a correct definition of 'Incompetent lips'?
A Lips which do not seal when their possessor is in occlusion
B Lips which do not seal when relaxed with the mandible in its rest position
C Lips that are separated by the upper incisors
D Lips against which the tongue always thrusts during swallowing
E Lips that contract during swallowing

3.63 The mouths of dentate 65 year olds who have retained (all) their teeth show
A less crowding than young adults
B fewer extreme overjets than in untreated children
C fewer extreme overbites than in untreated children
D no significant differences in crowding, overbite and overjet, when compared with A–C above

3.64 A 10 year old has a Class I dental base relationship, slight spacing and competent lips. He has a slightly increased overjet and sucks his thumb. If he stops this habit which of the following is most likely to happen?
A The overjet will reduce
B The Frankfort/mandibular plane angle will decrease
C The lower incisors will retrocline
D The upper incisors will imbricate
E The upper buccal segments will come forward

(Answers overleaf)

3.59 A **True**
B **True**
C **True**
D **False** very good co-operation is required
E **True**

3.60 A **False**
B **False**
C **True**
D **False**

3.61 A **False**
B **False**
C **True**
D **True** because of associated displacement
E **False**

3.62 A **False**
B **True**
C **False**
D **False**
E **False**

3.63 A **False**
B **False**
C **False**
D **True**

3.64 A **True**
B **False** FM angle remains virtually constant despite small changes in face height
C **False** no evidence
D **False** occasionally they may procline
E **False** any forward movement would have already taken place

3.65 Supernumerary teeth are commonly found
A associated with hypodontia
B where there is a cleft palate
C in about 0.5% of the population.
D in Passavant's ridge
E preceding the deciduous dentition

3.66 For the purpose of skeletal assessment by the method of incisor angle correction, (Ballard's method) the relationship between lower incisor inclination with respect to the mandibular plane and the maxillary mandibular plane angle is:
A inversely proportional
B directly proportional
C unrelated
D dependent upon upper incisor angulation
E dependent upon the skeletal form

3.67 Where one or more anterior teeth are in linguo-occlusion there is usually
A a reduced overbite
B proclined upper incisors
C a mandibular displacement
D overclosure of mandible

3.68 The low labial bow of the maxillary removable appliance is usually made from
A 0.7 or 0.8 mm hard stainless steel wire
B 0.5 or 0.6 mm hard stainless steel wire
C 0.6 or 0.7 mm hard stainless steel wire
D 0.8 or 0.9 mm hard stainless steel wire

3.69 If an anterior biteplane does not reduce the overbite the most probable explanation is that the patient
A is not wearing the appliance fulltime
B is not growing
C is not wearing the appliance at all
D has a small lower face height

3.70 The mentalis muscle has the following effect on the lower lip
A retrusion
B inversion
C elevation
D depression
E protrusion

(Answers overleaf)

3.65 A **False** very rare (0.4%)
B **True**
C **True**
D **False** you must be joking. Consult your anatomy textbook
E **False** these are rare

3.66 A **True**
B **False** this method of skeletal assessment is based on the
C **False** fact that if incisor angulations are correct with
D **False** respect to the facial skeleton any mal relationship
E **False** of the dental bases in the sagittal plane will be reflected in the incisor occlusion. For this reason the angulation of $\overline{11}$ to the mandibular plane is inversely proportional to the size of the maxillary/mandibular plane angle

3.67 A **False** may be so but not usually
B **False**
C **True**
D **False** there is doubt as to whether this entity exists

3.68 A **True**
B **False**
C **False**
D **False** sometimes used in Andresen appliances

3.69 A **True**
B **False** overbites can be reduced slightly even in the non growing patient
C **False** possible but very unlikely
D **False** reduced lower face heights do seem more difficult but initially the same changes are achieved

3.70 A **False**
B **False** unless the subject happens to be standing on his head!
C **True**
D **False**
E **True**

3.71 Posterior capping is used on an upper removable appliance in preference to an anterior bite plane
A to produce intrusion of the upper posterior teeth
B when additional retention is required
C to eliminate a mandibular deviation
D when an incisor has to be moved 'over the bite'
E when a spontaneous forward movement of lower buccal segments is required

3.72 Flat anterior bite planes used in the treatment of typical Class II/I malocclusion
A produce lower incisor depression
B allow upper molars to erupt
C allow lower molars to erupt
D produce a decrease in the overbite
E increase anchorage

3.73 Acrylic (cold curing)
A melts at 100°C
B softens at 100°C
C produces heat during curing
D still requires some heat to initiate curing
E is damaged by dilute acids

3.74 Expansion screws used in the treatment of crossbites typically produce about
A 1 mm expansion per month
B 1 mm expansion per quarter turn
C 1 mm expansion per half turn
D 0.20 mm expansion per quarter turn

3.75 If a lateral incisor is prevented from spontaneously following a canine during its retraction
A the canine will move more slowly
B the gingival attachment of both teeth will be damaged
C there will be no detectable effect on the rate of retraction of the canine
D anchorage will be lost
E the canine will become intruded

(Answers overleaf)

3.71 A **False** intrusion of the upper posterior teeth cannot be achieved by this means
B **False** has no effect on retention
C **True**
D **True**
E **False** cuspal locks are quickly re-established as the acrylic becomes faceted

3.72 A **True** but very slight
B **True**
C **True**
D **True**
E **False** no evidence

3.73 A **False**
B **True**
C **True**
D **False**
E **False**

3.74 A **False** the amount of expansion depends entirely on the instructions given by the clinician to the patient. The rate of expansion appropriate to a particular case depends on the use to which the screw is being put
B **False**
C **False**
D **True**

3.75 A **False** no evidence
B **False** no evidence
C **True**
D **False** no evidence
E **False** no evidence

3.76 With lower incisor crowding the 'canine rule'
A gives too much space
B gives too little space
C gives the correct space
D gives the correct space on near normal skeletal bases
E cannot be applied

3.77 A suitable extra-oral force for retraction of buccal segments is
A 10 lb
B 4 oz
C 2 lb
D 100 grams
E 500 grams

3.78 You have successfully treated a Class II/1 malocclusion. The ideal Class I incisor relationship has been produced and 4|4 were extracted. The arches are now well aligned. What molar occlusion will there be at the end of treatment when all spaces are closed?
A Full unit Class II
B ½ unit Class II
C Class I
D ½ unit Class III
E Full unit Class III.

3.79 Which of the following are valid reasons for the removal of an upper second premolar as part of treatment with removable appliances?
A When it is palatally misplaced
B When it is palatally excluded and first molar and first premolar are in contact
C Where the lower second premolar is congenitally absent and the greater part of its space has been lost
D When less than ½ of a premolar unit is required for incisor alignment
E When the upper second molar is short of space

3.80 Lower central incisor extractions should usually be avoided because of
A aesthetic problems
B shift of centre line
C the difficulty of fitting the upper labial segment around the lower
D recurrence of crowding in this region
E collapse of the lower arch

(Answers overleaf)

3.76 A **False**
B **True**
C **False**
D **False**
E **False** but lower canines must be mentally repositioned (to allow sufficient space for the lower incisors to be aligned) before the 'rule' can be applied

3.77 A **False** too large
B **False** too small
C **True** 2 lb (900 grams) is about the maximum force which should be applied
D **False** too small
E **True** 500 grams (1.1 lb) is widely accepted as being the most appropriate force level for this purpose

3.78 A **False** } impossible
B **False** }
C **True**
D **False** } impossible
E **False** }

3.79 A **False** it is easy to align
B **True**
C **True** where extractions are appropriate in both arches it is usually a good principle to extract opposing teeth
D **False**
E **False**

3.80 A **False** the absence of a lower central incisor is frequently missed even by the clinician
B **False** what 'centre line'?
C **True**
D **True**
E **False** labiolingual position of the lower incisors is relatively stable following extraction

3.81 Thumb sucking habits usually
A cease spontaneously
B produce a distal displacement of the mandible
C limit forward growth of the mandible
D need appliances to discourage them
E indicate psychological disturbances

3.82 Transposition of teeth means
A surgical repositioning of teeth
B inverted supernumerary
C tooth bearing teratoma
D teeth erupted in unusual positions, e.g. 2|31
E teeth rotated through more than 90°

3.83 If a permanent successor fails to develop, the corresponding deciduous molar will probably
A be lost at the usual time
B be lost earlier than normal
C be retained until the third decade of life
D be delayed in its eruption
E submerge in later life

3.84 If E|E are lost due to caries at 8 years in a crowded mouth, 5|5 will probably
A impact
B be outlocked buccally
C fail to erupt
D be accidentally removed as the follicle of these teeth is embraced by the roots of the deciduous tooth
E be deflected palatally

3.85 The prevalence of Class II/1 malocclusion in British schoolchildren is
A less than 20%
B 25–35%
C 35–40%
D 40–50%
E greater than 50%

3.86 The prevalence of Class III malocclusion in British schoolchildren is
A less than 1%
B less than 2%
C 3–5%
D 5–10%
E 10–15%

(Answers overleaf)

3.81 A **True**
B **False**
C **False**
D **False** few cases require this
E **False** rarely evidence for this

3.82 A **False**
B **False**
C **False**
D **True**
E **False**

3.83 A **False**
B **False**
C **True**
D **False**
E **False** the apparent submergence of a retained deciduous tooth is caused by the eruption of surrounding teeth. This compensatory eruption continues as long as the patient's face is growing. Once growth has ceased no further apparent submergence occurs. Hence submergence is not seen in later life

3.84 A **False** the pre-eruptive position of the second premolar
B **False** enables an unimpeded palatal path of eruption
C **False**
D **False** although this sometimes is the case in the lower arch
E **True**

3.85 A **False**
B **True**
C **False**
D **False**
E **False**

3.86 A **False**
B **False**
C **True**
D **False**
E **False**

3.87 An incisor is said to be dilacerated when it
A has a small crown
B is misplaced and unerupted
C has a sharply bent root
D is inverted
E is impacted

3.88 The SNA SNB method of assessing antero-posterior skeletal relationship is unreliable because
A point A is not on basal bone
B of the difficulty of determining the S point on the radiograph
C no account is taken of the width of the dental base
D in cases of incomplete overbite centric cannot be guaranteed
E the angle ANB is affected by variation in facial form

3.89 Fluoride-containing dentifrices
A are the most widely used means by which fluorides are used for caries prevention
B require calcium carbonate in the formulation to provide stability
C have a declining level of available fluoride with the passage of time
D have been shown on average to reduce caries incidence by 30% in controlled trials
E have a purely local effect on the enamel with which the fluoride comes into contact

3.90 Fluoride tablets
A when taken during pregnancy confer a useful degree of caries resistance on the infant
B when taken by an infant have no adverse effects if gross overdose is avoided
C have occasionally lead to fatal overdose in infancy
D should not be given in a dose greater than 0.25 mg fluoride per day up to the age of 6 months
E usually contain 2.2 mg of sodium fluoride, the equivalent of 1 mg fluoride ion

(Answers overleaf)

3.87 A **False**
B **False**
C **True**
D **False**
E **False**

3.88 A **True**
B **False** a very reliable landmark
C **False** irrelevant to A/P assessment
D **False** no less 'guaranteed' than with any other occlusion
E **True**

3.89 A **True**
B **False** the calcium carbonate binds to and inactivates fluoride
C **True**
D **True**
E **False** infants especially probably swallow sufficient for the fluoride to have a systemic effect

3.90 A **False** the extra fluoride tends to be taken up by the maternal skeleton and does not appear to cross the placenta in useful amounts
B **False** mottling has proved to be a complication of the earlier regimens that were suggested
C **False** as far as is known, fluoride tablets have never caused fatalities in infants
D **True**
E **True**

3.91 Water fluoridation
A Fluoride was first detected in human enamel by Berzelius in 1805
B The association of mottled enamel with an excessively high fluoride level in the drinking water was conclusively established in the United States by Dean and McKay in 1939
C Statistical confirmation that caries experience was lower than average in high fluoride areas was provided by McKay in 1941 in the United States
D The hypothesis that fluoride would make teeth more resistant to caries was put forward by Erhardt in 1874
E The first trial of artificial fluoridation of the water supply was initiated in Muskegan, Michigan in 1944

3.92 Fluoridation of water at a level of 1 part per million
A is not associated with mottling of the teeth
B is available to about 25% of the population of Britain
C reduces caries prevalence by 70%
D has a greater caries-preventive effect on anterior teeth than on molar pits and fissures
E depends on DHSS decisions in Britain for implementation

3.93 Chronic overdosage of fluoride from drinking water with a high natural level of fluoride
A is most reliably indicated by mottling of the permanent teeth
B does not cause mottling of the deciduous teeth
C is not seen in Britain
D leads to increased radiodensity of the skeleton
E can lead to paraplegia

3.94 For the prevention of dental caries
A fluoride-containing dentifrices are of proven effectiveness
B regular chlorhexidine mouthrinses are effective by virtue of their plaque inhibiting effect
C application of fissure sealants is overall the most cost-effective method
D vaccination against *Strep. mutans* is likely to replace all currently available methods
E fluoride-containing dentifrices were available in 1902

3.95 The caries-preventive effect of fluorides depends on
A their incorporation uniformly throughout the enamel
B their antibacterial effect on dental plaque
C rendering enamel significantly less soluble in acid
D promoting remineralisation of the early enamel lesion
E lowering the pH of plaque

(Answers overleaf)

3.91 A **True**
B **True**
C **False** this was established by Ainsworth in Britain in 1933
D **True**
E **False** Muskegan was the control town; Grand Rapids was the first to have artificial fluoridation

3.92 A **False** as fluoride tablets in particular may be being taken as well
B **False** it is only about 10%
C **False** the reduction is approximately 50%
D **True**
E **False** the decision depends on local authorities

3.93 A **True**
B **False** where fluoride levels are exceptionally high (about 15 ppm) even the deciduous teeth can become mottled
C **False** moderately severe mottling can still be seen particularly in Maldon (Essex), where the fluoride level was over 4 ppm, among older people
D **True**
E **True** as a result of bony exostoses pressing on the cord but only when fluoride levels are enormously high

3.94 A **True**
B **False** chlorhexidine does not reach stagnation areas; the sites of caries attack
C **False** it is expensive and is only applicable to pit and fissure caries
D **False** or at least unlikely in view of the decreasing incidence of caries and the problems of convincingly establishing the safety of such vaccines
E **True** yes really!

3.95 A **False** fluoride tends to be concentrated in the surface enamel
B **False** this has not been convincingly demonstrated
C **False** at least the effect does not seem to be sufficiently strong to be significant
D **True** or at least this is probably the most widely accepted belief now
E **False** this has not been convincingly demonstrated

3.96 Dental fluorosis
A can result from use of fluoride tablets
B is associated with increased resistance to caries if mild
C in severe, pitting, form, decreases resistance to caries
D was a common finding in Malden, Surrey
E is currently seen more frequently in immigrants

3.97 Tetracycline pigmentation of permanent teeth typically
A causes brownish grey discolouration
B develops between birth and 8 years
C can be bleached out
D can be recognised by yellow fluorescence under UV light
E is associated with staining of bone

3.98 Tooth discolouration
A by chlorhexidine affects embrasures predominantly
B in children by 'black stain' is associated with low caries prevalence
C by tetracycline is maximal in the anterior teeth
D is a recognised complication of excessive ingestion of Cola drinks
E is a recognised complication of the use of strontium chloride dentifrices

3.99 Which of the following statements regarding development of the dentition is true?
A Calcification of all the deciduous teeth starts between 4 and 6 months in utero
B Calcification of the permanent upper central incisors starts in utero
C the permanent central incisor root is typically complete by 9 years
D The permanent canines start to calcify at or very soon after birth
E The root of the permanent canines is typically not complete before 12 to 14 years

3.100 In the case of pulpitis of a deciduous molar
A subsequent interradicular periodontitis can damage the successor
B extraction is usually the most appropriate treatment
C pulpotomy is rarely justified
D antibiotics should be given if the child has congenital heart disease
E pulp dressings based on paraformaldehyde are obsolete

(Answers overleaf)

3.96
A **True**
B **True**
C **True**
D **False** It was in Maldon, Essex
E **True**

3.97
A **True** if the tetracycline has been taken during development of the teeth
B **True**
C **False**
D **True** in an undecalcified section of the tooth
E **True**

3.98
A **True**
B **True**
C **True**
D **False** these cause tooth erosion
E **False**

3.99
A **True**
B **False**
C **True**
D **False** not usually before 4 months of age
E **True**

3.100
A **True**
B **False** the tooth should be saved if at all possible if only for space maintenance
C **False**
D **False** unless the tooth is extracted
E **False**

3.101 Delayed eruption of at least part of the dentition is a recognised feature of
A rickets
B congenital hyperthyroidism
C cleidocranial dysplasia
D cherubism
E anhidrotic ectodermal dysplasia

3.102 In the case of a Class III fracture of a central incisor in an 8 year old boy
A extraction is usually the optimal treatment
B pulpotomy should be carried out to allow root formation to be completed
C immediate root filling is the most appropriate form of management
D an antibiotic pulp dressing is likely to improve the chance of survival of the pulp
E a calcium hydroxide preparation is the preferred pulpal or apical dressing material

3.103 An impacted maxillary canine
A in a 13 year old is best transplanted into the correct site rather than being moved orthodontically
B should not be approached with a posterior palatal flap incision
C is best transplanted when the root apex has closed
D may be associated with dentigerous cyst formation

3.104 Important causes of hypodontia include
A cleft palate
B Down's syndrome
C cleidocranial dysplasia
D anhidrotic ectodermal dysplasia
E epidermolysis bullosa

3.105 Which of the following statements is/are true?
A The mandible develops mainly as membrane bone in the fibrous sheath of Meckel's cartilage
B The mandible receives its blood supply only from the inferior dental artery
C The first deciduous lower incisors erupt at about 6 months
D The second permanent molars erupt at about 12 years

(Answers overleaf)

3.101 A **True**
B **False** eruption is typically delayed in cretinism (congenital hypothyroidism)
C **True**
D **True**
E **False**

3.102 A **False**
B **True**
C **False**
D **False**
E **True**

3.103 A **False** the prognosis after transplantation is not as good as after orthodontic movement
B **True** the blood supply is hazarded
C **False** prognosis is better where the apex is open before transplantation
D **True**

3.104 A **True**
B **True**
C **False** there is hyperdontia, but most teeth fail to erupt
D **True**
E **False**

3.105 A **True**
B **False** the mandible receives a blood supply from other sources, such as the periosteal membrane
C **True**
D **True**

3.106 Which of the following are true?
A The cartilage of the 1st branchial arch gives rise to the stapes, styloid process and part of the hyoid bone
B The cartilage of the 2nd branchial arch gives rise to the incus and malleus
C The cartilage of the 3rd branchial arch gives rise to the part of the hyoid
D The cartilage of the 4th, 5th and 6th branchial arches give rise to the manubrium sterni

3.107 Which of the following are true?
A The muscles of mastication and facial expression are first branchial arch derivatives
B The external auditory meatus is derived from the first arch cleft
C The thymus and inferior parathyroids are third arch derivatives
D The pulmonary artery and ductus arteriosus is the artery of the fifth branchial arch

3.108 Chromosomal abnormalities are features of
A Down's syndrome (mongolism)
B cleft lip/palate
C haemophilia A
D most cases of chronic myeloid leukaemia
E Turner's syndrome (gonadal dysgenesis)

3.109 Congenital cardiac disease
A may produce central cyanosis
B may cause finger clubbing
C produces cyanosis if there is more than 5 g/dl reduced haemoglobin in the blood
D may predispose to infective endocarditis
E after cardiac surgery does not predispose to infective endocarditis

3.110 Which of the following statements is/are true?
A The karyotype of a normal female is 46 XY and that of a male 46 XX
B Down's syndrome has associated defects of many systems including the facial skeleton and dentition
C A buccal smear is useful for the diagnosis of Down's syndrome as it shows the presence in squames of Barr bodies
D Edward's syndrome is trisomy of chromosome 18

(Answers overleaf)

3.106 A **False** these are derivatives of the 2nd arch
B **False** these are derivatives of the 1st arch
C **True**
D **False** these arch cartilages give rise to laryngeal cartilages

3.107 A **False** the muscles of facial expression are derivatives of the second arch
B **True**
C **True**
D **False** the pulmonary artery and ductus arteriosus is the artery of the sixth branchial arch

3.108 A **True** Down's syndrome is usually trisomy 21
B **False**
C **False**
D **True** There is usually a chromosome anomaly of chromosome 22 (Philadelphia chromosome) in chronic myeloid leukaemia
E **True** Turner's syndrome is XO

3.109 A **True** central cyanosis can also be caused by cardiovascular or respiratory disease (or methaemoglobinaemia). Some congenital cardiac defects do not cause cyanosis
B **True** finger clubbing can also be caused by, for example, respiratory disease or malabsorption
C **True**
D **True** but the level of risk is minute in some types
E **False** the risk of endocarditis may persist after cardiac surgery since defects may not be completely rectified or foreign material may be inserted. However the risk of infective endocarditis can be removed in some cases

3.110 A **False** female karyotype is 46 XX, male is 46 XY
B **True**
C **False** Barr bodies are female sex chromatin
D **True**

3.111 Typical features of Down's syndrome (mongolism) are
A multiple immunodeficiencies
B severe caries but minimal periodontal disease
C susceptibility to infections
D multiple missing teeth and malocclusion
E hepatitis B carriage in institutionalised patients

3.112 The following diseases are usually sex-linked
A factor IX deficiency
B von Willebrand's disease
C chronic granulomatous disease
D colour blindness
E achondroplasia

3.113 The following are more common in children than adults
A African Burkitt's lymphoma
B cherubism
C dentigerous cysts
D hand foot and mouth disease
E progonoma (pigmented neuroectodermal tumour)

3.114 Which show a greater incidence of Class III occlusion than the general population?
A patients with ectodermal dysplasia
B patients with cleft palate
C achondroplasia
D patients with fibrous dysplasia

3.115 Cleft palate
A may be submucous
B is more common in males than females
C predisposes to speech defects, orthodontic problems and hearing loss
D patients are more likely to have cardiovascular defects than the general population
E patients should be managed by a team including orthodontist, surgeon and speech therapist

3.116 Bilateral symmetrical swelling of the mandible in a child is likely to be caused by
A acromegaly
B Paget's disease
C giant cell lesions
D primordial cysts
E dental cysts

(Answers overleaf)

3.111 A **True**
B **False** the reverse is true
C **True** respiratory, cutaneous and gastrointestinal infections are common
D **True**
E **True**

3.112 A **True**
B **False** autosomal dominant
C **True**
D **True**
E **False** autosomal dominant

3.113 A **True**
B **True**
C **False**
D **True**
E **True**

3.114 A **False**
B **True**
C **True**
D **False**

3.115 A **True**
B **False** cleft palate is more common in females
C **True**
D **True**
E **True**

3.116 A **False**
B **False**
C **True** cherubism
D **False**
E **False**

3.117 Patients with cerebral palsy
A are predisposed to hepatitis B carriage
B are characterised by slowness in learning to talk and by failure in interpersonal relationships
C of the choreoathetoid type are usually also deaf
D are also mentally handicapped

3.118 Anhidrotic ectodermal dysplasia is characterised by
A scanty hair
B hypodontia or anodontia
C dry skin
D blistering and scarring of epithelial surfaces
E severe immunological defects

3.119 Cherubism typically
A is inherited as a simple dominant
B presents with symmetrical swelling of the jaws
C regresses after puberty
D is distinguishable from a giant cell granuloma histologically
E resembles multilocular cysts on radiographs

3.120 Clefts of the secondary palate
A may be associated with heart defects
B often cause defective speech
C cause cleft lip
D can involve both hard and soft palates
E are more common in males

3.121 Incisors which taper towards the incisal edge (peg shaped) are typical of
A congenital syphilis
B rickets
C anhidrotic ectodermal dysplasia
D epidermolysis bullosa
E supernumerary teeth

3.122 Tooth eruption may be
A complete in the deciduous dentition by the age of 4 years
B retarded in acromegaly
C impaired in cleidocrannial dysplasia
D impaired because of thyroxine therapy
E retarded in congenital hypothyroidism

3.123 Eruption of teeth is typically delayed in
A rickets
B cherubism
C dentinogenesis imperfecta
D cretinism
E dentigerous cysts

(Answers overleaf)

3.117 A **False**
B **False** these are characteristics of autism
C **True** often caused by congenital rubella infection or kernicterus
D **False** many patients with cerebral palsy are of normal or high intelligence although the frequency of mental handicap in patients with cerebral palsy is higher than in the general population

3.118 A **True**
B **True**
C **True**
D **False**
E **False**

3.119 A **True**
B **True**
C **True**
D **False**
E **True**

3.120 A **True**
B **True**
C **False**
D **True**
E **True**

3.121 A **True**
B **False**
C **True**
D **False**
E **True**

3.122 A **True**
B **False**
C **True**
D **False**
E **True**

3.123 A **True**
B **True**
C **False**
D **True**
E **True**

3.124 Amelogenesis imperfecta may result typically in
A hypocalcified enamel
B scanty, irregular but well-calcified enamel
C different effects in male and female siblings
D condylar hypoplasia
E rampant caries

3.125 Osteogenesis imperfecta
A is a sex-linked disorder of bones that develop in cartilage in which the development of the skull vault is normal
B manifests with blue sclerae which are pathognomonic of this disease
C may be associated with deafness
D has associations with amelogenesis imperfecta

3.126 Vitamin D
A deficiency in children causes rickets
B is metabolised in the liver to the active 1,25-dihydroxycholecalciferol (1,25-DHCC)
C levels are high in green vegetables
D resistance is found in renal rickets because the kidney fails to metabolise it to 1,25 dihydroxycholecalciferol

3.127 Primary herpetic gingivo-stomatitis
A is caused by herpes simplex virus (HSV) type 1 or type 2
B is followed by herpes labialis in about 30% of cases
C is an increasingly common disease in children
D shows ballooning degeneration of epithelial cell nuclei and giant cells in smears from lesions
E is accompained by a rising titre of serum antibodies against HSV

3.128 Following facial trauma in children
A vitality tests of traumatised incisors are a good early method of deciding if the pulp has been damaged significantly
B Any fractures of the facial skeleton rarely require fixation
C blood loss may be significant
D the possibility of child abuse should be considered

3.129 Concerning battered babies (child abuse)
A facial trauma is uncommon
B parent or sibling may be responsible
C abused children are quickly brought for medical attention
D careful documentation is mandatory
E an 'at risk' register is kept by the local social services department

(Answers overleaf)

3.124 A **True**
B **True**
C **True**
D **False**
E **False**

3.125 A **False** this is achondroplasia, usually inherited in an autosomal dominant mode of inheritance
B **False** several other conditions are associated with blue sclerae, and the latter are normal in early infancy
C **True** from otosclerosis
D **False** the association is between osteogenesis imperfecta and dentinogenesis imperfecta

3.126 A **True**
B **False** although the liver metabolises vitamin D, it is the kidney that undertakes metabolism to 1,25-DHCC
C **False**
D **True**

3.127 A **True** but rarely type 2
B **True**
C **False** the incidence has greatly declined in children
D **True**
E **True**

3.128 A **False** early results are unreliable
B **True**
C **True** unlike adults who rarely lose a significant amount of blood from facial fractures
D **True**

3.129 A **False**
B **True**
C **False** there is often a delay in seeking medical attention
D **True**
E **True**

3.130 Haemophilia A
A is about 10 times as common as Haemophilia B (Christmas disease)
B and B are both sex-linked recessive traits
C is only found where there is a positive family history
D patients with a factor VIII level above 25% may have little apparent bleeding tendency

3.131 In children with leukaemia
A the 5-year survival with treatment is now over 50%
B gingival bleeding is common
C platelet infusions should not be given before dental or oral surgery
D infection with herpes viruses is common
E cytotoxic agents may produce oral ulceration

3.132 Acute leukaemia in children
A characteristically causes gross gingival swelling
B may be manifested by mucosal pallor
C can cause obvious purpura
D shows enlargement of the lymph nodes
E is usually lymphoblastic

(Answers overleaf)

3.130 A **True**
B **True**
C **False** in only 65% of cases is a positive family history found
D **True**

3.131 A **True**
B **True**
C **False** platelet infusions may well be needed to ensure haemostasis
D **True**
E **True**

3.132 A **False** this is particularly a feature of acute myelomonocytic leukaemia, which typically affects adults
B **True**
C **True**
D **True**
E **True**

4 Periodontology

4.1 The primary cause of periodontal disease is:
A systemic disease
B vitamin deficiency
C plaque
D occlusal trauma
E mouthbreathing

4.2 Gingivitis
A invetably progresses to periodontitis
B affects approximately 40% of adolescents
C is characterised by true pocketing
D is evident on X-rays
E is a reversible lesion

4.3 The attached gingiva in disease
A extends from the gingival margin to the base of the pocket
B extends from the gingival margin to the mucogingival junction
C extends from the level of the base of the pocket to the mucogingival junction
D consists of non-keratinised epithelium
E is of uniform width around the mouth

4.4 The sulcular epithelium
A extends from the gingival margin to the base of the clinical sulcus or pocket
B is keratinised
C is attached to the tooth surface
D contains no stratum spinosum
E extends from the base of the histological sulcus to the gingival margin

4.5 Junctional epithelium
A lines the gingival sulcus
B is permeable
C is derived initially from the outer enamel epithelium
D is attached to enamel by desmosomes
E is keratinised

(Answers overleaf)

Answers

4.1
A **False** no evidence, may modify but not a primary cause
B **False** no evidence
C **True** but host factors affect the rate of tissue damage
D **False** may modify but not the cause
E **False** no firm evidence

4.2
A **False**
B **False** observed in almost all mouths
C **False** the inflammatory swelling of gingivitis produces false pockets
D **False**
E **True**

4.3
A **False** this is the definition of pocket depth
B **False** includes gingiva adjacent to the pocket which is not attached
C **True**
D **False** keratinised
E **False** varies in width

4.4
A **False** only rarely does the probe tip stop at the coronal surface of the junctional epithelium
B **False**
C **False**
D **False**
E **True**

4.5
A **False** sulcular epithelium
B **True**
C **False** inner enamel epithelium
D **False** hemidesmosomes
E **False** non-keratinised

4.6 The junctional epithelium
A is attached to the tooth surface by hemidesmosomes
B is not adherent to the tooth surface
C is not found at the base of a pocket
D cannot reform after periodontal surgery
E is keratinised

4.7 Gingival collagen
A is very susceptible to attack by all proteolytic enzymes
B is secreted as fibres
C has a rapid rate of turnover
D is predominantly Type 3
E is predominantly Type 2

4.8 The periodontal ligament
A derives its blood supply primarily from branches of vessels entering the pulp
B has a slow rate of turnover
C contains epithelial cells
D comprises primarily Type 2 collagen
E becomes wider around non-functional teeth

4.9 Which of the following fibre groups are not attached to alveolar bone?
A Transseptal
B Oblique
C Horizontal
D Apical
E Dentoperiosteal

4.10 Which of the following are the predominant connective tissue cells of the periodontal ligament?
A Fibroblasts
B Rests of Malassez
C Osteoblasts
D Cementoblasts
E Osteoclasts

4.11 Cementum
A is derived from the Sheath of Hertwig
B is acellular in the apical third of the tooth
C often overlaps the enamel
D does not contain collagen fibres
E ceases formation once the tooth has erupted

(Answers overleaf)

4.6 A **True**
B **False** is firmly attached
C **False** it is present at the base of all pockets
D **False**
E **False**

4.7 A **False** only susceptible to certain proteolytic enzymes
B **False** fibre aggregation is an extracellular process
C **True**
D **False** Type 1
E **False** Type 1

4.8 A **False** derives blood supply primarily from lateral wall of socket
B **False** high turnover rate
C **True** rests of Malassez
D **False** Type 1
E **False** becomes narrower

4.9 A **True** attached to adjacent root surfaces not bone
B **False** attached to bone
C **False** attached to bone
D **False** attached to bone
E **Falaw** attached to bone

4.10 A **True**
B **False**
C **False**
D **False**
E **False**

4.11 A **False** dental follicle
B **False** cellular
C **True**
D **False** intrinsic and extrinsic fibres
E **False** vital tissue

4.12 Gingival recession
A is more likely to be found in a well maintained mouth than one with periodontal disease
B always implies the presence of chronic periodontal disease
C is always associated with pocketing
D requires the insertion of a graft
E is an important cause of tooth loss

4.13 Gingival recession is
A common in young children
B always associated with gingival inflammation
C frequently caused by fraenal pull
D more prevalent on buccal than palatal surfaces
E frequently the result of orthodontic tooth movement

4.14 Gingival swelling
A causes increased stippling of the attached gingiva
B is a side effect of occlusal trauma
C is a side effect of sodium valproate therapy
D is commonly the result of inflammatory oedema
E is associated with gingival recession

4.15 A false pocket
A is a feature of periodontitis
B has its base on the root surface
C may be associated with bone loss
D is associated with tooth mobility
E is a feature of gingivitis

4.16 A true pocket is diagnosed when
A bone loss is evident on radiographs
B probing elicits bleeding
C the base of the pocket is apical to the cementoenamel junction
D the probing depth is 4 mm
E pus is expressed on applying gentle pressure

4.17 A pocket depth of 5 mm means that
A the tooth has lost 5 mm of connective tissue attachment
B the tooth is likely to be mobile
C the probe passes 5 mm beyond the cementoenamel junction
D the probe passes 5 mm beyond the gingival margin
E the patient has periodontitis

(Answers overleaf)

4.12 A **True**
B **False** not always by any means
C **False** recession often prevents pocket formation
D **False** rarely
E **False** no evidence

4.13 A **False**
B **False** gingivae often not inflamed
C **False** no evidence — secondary factor
D **True**
E **False**

4.14 A **False** except in fibrous hyperplasia, particularly phenytoin-induced
B **False** no evidence
C **False** no evidence
D **True**
E **False**

4.15 A **False** false pockets are typical of gingivitis or gingival hyperplasia
B **False** by definition it has not progressed on to the root surface
C **False** unless periodontitis is associated
D **False** unusual — occasionally in pregnancy
E **True**

4.16 A **False** not necessarily — pocketing may have been eliminated by treatment
B **False** may not bleed
C **True**
D **False** the pocket may be false with no loss of attachment
E **False** not necessarily

4.17 A **False** pocket depth is measured from the gingival margin and provides no indication of attachment loss
B **False** not necessarily
C **False** only if gingival margin located at cementoenamel junction
D **True**
E **False** not necessarily — could be false pocketing

4.18 Radiography will show
A depth of periodontal pocketing
B presence of bone loss
C alveolar fenestration
D alveolar dehiscence
E periodontal disease activity

4.19 A gingival index score of 1 means that
A the gingivae are clinically healthy
B probing elicits bleeding
C probing does not elicit bleeding
D there is spontaneous bleeding
E there is no colour change

4.20 A dehiscence
A is a circumscribed defect of alveolar bone
B is more likely to affect teeth with prominent roots
C has no influence on disease progress
D is most likely to be associated with lower premolars
E is commonly traumatic in origin

4.21 Abrasion lesions
A are caused by acid regurgitation
B are caused by toothbrushing
C must always be restored
D are more common on lingual/palatal surfaces than buccal and labial surfaces
E are a common cause of tooth loss

4.22 The predominant bacteria in 2 day old supragingival plaque are
A Streptococci
B Actinomyces
C Bacteroides
E Filamentous bacteria
E Fusiforms

4.23 Supragingival plaque
A can be dislodged with a water spray
B contains 2×10^5 microorganisms per gram wet weight
C forms only in the presence of food
D consists initially of lactobacilli
E begins to form within minutes of a tooth being cleaned

4.24 Supragingival calculus
A may be mechanically irritating to the gingiva
B derives its mineral content from saliva
C forms more readily in an acid environment
D is randomly distributed around the mouth
E only forms after the onset of disease

(Answers overleaf)

4.18 A **False** pocket depth is measured from the gingival margin which is not visible
B **True**
C **False** superimposed over root surface — not visible
D **False** superimposed over root surface — not visible
E **False** illustrates what has happened, not what is happening

4.19 A **False** score 0=health
B **False** bleeding =2
C **True**
D **False** bleeding=3
E **False** gingivae usually inflamed

4.20 A **False** this is fenestration
B **True**
C **False** may influence disease progress
D **False** more commonly involves lower incisors, maxillary first molars
E **False** not commonly

4.21 A **False** erosion
B **True**
C **False** not necessarily
D **False** more common on buccal/labial surfaces
E **False**

4.22 A **True**
B **False** not predominant — except possibly on exposed root surfaces
C **False**
D **False**
E **False**

4.23 A **False** by definition it is adherent
B **False** contains 10^{11} per gram
D **False** can form in absence of food
D **False** streptococci
E **True**

4.24 A **False** irritation caused by superficial layer of plaque
B **True**
C **False** plaque cannot mineralise in an acid environment
D **False** typically thickest on lingual aspects of lower incisors
E **False** precedes disease

4.25 Subgingival calculus
A forms initially in proximity to salivary ducts
B derives its mineral content from saliva
C forms after the onset of gingival inflammation
D precedes the onset of gingival inflammation
E is pale cream in colour

4.26 The 'initial lesion' of gingivitis, according to Page and Schroeder (1976),
A develops only after 10 days without oral hygiene
B is associated with gingival bleeding
C is dominated by lymphocytes
D is dominated by polymorphonuclear leukocytes (PMNs)
E is irreversible

4.27 The 'early lesion' of gingivitis, according to Page and Schroeder (1976),
A develops within 2 days of no oral hygiene
B is dominated by B lymphocytes
C is irreversible
D is associated with extensive destruction of collagen fibres
E is infiltrated with T lymphocytes

4.28 Periodontitis is usually severe in patients
A taking phenytoin
B with defective neutrophils
C with bruxism
D with overcrowding
E taking 'the pill'

4.29 Acute ulcerative gingivitis
A is contagious
B is associated with halitosis
C causes ready bleeding of the gingiva
D may be predisposed to by a previous viral infection
E usually responds readily to miconazole

4.30 Acute ulcerative gingivitis is usually characterised by
A involvement of the adjacent soft tissues
B failure to respond to penicillin
C interdental ulceration
D regional lymph gland involvement
E elevated temperature

(Answers overleaf)

4.25 A **False** no preferential distribution
B **False** derives mineral from crevicular fluid
C **True**
D **False** can only mineralise once there is crevicular fluid
E **False** dark brown in colour

4.26 A **False** after 2–3 days
B **False** it is a histological concept based on animal work not a clinical entity
C **False** PMNs are predominant
D **True**
E **False** reversible

4.27 A **False** 4–7 days
B **False** T lymphocytes
C **False** reversible
D **False** not at this stage
E **True**

4.28 A **False** no evidence
B **True**
C **False** no evidence
D **False** no evidence
E **False** no evidence

4.29 A **False** no evidence
B **True**
C **True**
D **True**
E **False** miconazole is predominantly antifungal, metronidazole is the agent effective in AUG

4.30 A **False** not in this country
B **False** responds to penicillin
C **True**
D **False** only in unusually severe cases
E **False** only in unusually severe cases

4.31 In acute ulcerative gingivitis
A there is evidence of immunodeficiency in most cases
B *Fusobacterium nucleatum* and *Borrelia vincentii* are not otherwise known to be pathogenic
C anaerobic organisms are not the proven cause
D spirochaetes invading the tissues can be demonstrated by electron microscopy
E there is regularly a febrile systemic illness

4.32 Juvenile periodontitis
A is common
B is more common in males than females
C is a degenerative disease
D is most severe around incisors and first molars
E always progresses to loss of affected teeth

4.33 Desquamative gingivitis
A is caused by hormonal disturbances
B is frequently caused by lichen planus
C is seen only at or after the menopause
D can be caused by mucous membrane pemphigoid
E is a variant of pregnancy gingivitis

4.34 In the 1978 Adult Dental Health Survey in England and Wales what percentage of regular attenders claimed to brush their teeth twice or more a day?
A 30%
B 45%
C 55%
D 65%
E 75%

4.35 In the 1978 Adult Dental Health Survey in England and Wales the percentage of regular attenders who claimed to use interdental cleaning aids was
A 10%
B 20%
C 30%
D 40%
E 50%

4.36 In the 1978 Adult Dental Health Survey in England and Wales the approximate percentage of regular attenders who claimed to have been shown how to brush their teeth was
A 60%
B 50%
C 40%
D 30%
E 20%

(Answers overleaf)

4.31 A **False**
B **False** *Fusobacterium nucleatum*, for example, is one of the most common causes of severe anaerobic infections in other parts of the body
C **False** it responds to metronidazole
D **True**
E **False**

4.32 A **False** uncommon
B **False** more common in females
C **False** not supported by evidence
D **True**
E **False** may go into remission

4.33 A **False** desquamative gingivitis is most common in women who are peri-menopausal but this does not mean it is hormonal in aetiology. Most cases are caused by lichen planus or mucous membrane pemphigoid
B **True**
C **False**
D **True**
E **False**

4.34 A **False**
B **False**
C **False**
D **False**
E **True**

4.35 A **False**
B **False**
C **True**
D **False**
E **False**

4.36 A **False**
B **False**
C **True**
D **False**
E **False**

4.37 Dental health education should attempt particularly to
A impart information
B change attitudes
C increase frequency of toothbrushing
D change behaviour
E instruct in the use of dental floss

4.38 The tissue response to oral hygiene instruction is best assessed by
A probing the base of the pocket
B changes in plaque scores
C reduced tendency to bleed on probing the gingival margin
D reduced tooth mobility
E reduced gingival redness

4.39 Chlorhexidine mouthrinsing
A specifically inhibits Gram-negative bacteria
B can inhibit subgingival plaque
C can only be obtained on prescription
D may disturb taste sensation

4.40 Chlorhexidine
A is anionic
B has a narrow spectrum of activity
C is normally used as a 0.02% concentration
D is normally used as a 0.2% concentration
E penetrates the gingival crevice/pocket

4.41 Chlorhexidine
A penetrates stagnation areas well
B reduces the flora of periodontal pockets
C abolishes plaque formation
D will control ulcerative (Vincent's) gingivitis
E may stain teeth

4.42 Metronidazole
A has no side effects
B is mainly active against Gram-positive aerobes
C is effective in the management of acute ulcerative gingivitis
D is mainly concentrated in saliva
E is prescribed as 200 mg tablets to be taken 4× per day

4.43 A conventional gingivectomy
A will eliminate infra-bony pockets
B will eliminate false pockets
C will preserve width of attached gingiva
D facilitates healing by primary intention
E permits access to alveolar bone

(Answers overleaf)

4.37 A **False** information *per se* does not necessarily result in behaviour change
B **False** a change in attitude is not necessarily followed by change in behaviour
C **False** increased frequency of brushing does not necessarily result in cleaner teeth
D **True**
E **False** not necessarily

4.38 A **False** is not accessible to patients' oral hygiene
B **False** not relevant to tissue response
C **True**
D **False** unlikely to respond to oral hygiene instruction
E **False** very subjective

4.39 A **False** broad spectrum
B **False** does not penetrate subgingivally
C **False** available over the counter
D **True**

4.40 A **False** cationic
B **False** broad spectrum
C **False** 0.2%
D **True**
E **False** not unless applied directly

4.41 A **False**
B **False**
C **False** it only partially inhibits plaque formation and does not affect plaque significantly in stagnation areas
D **False**
E **True**

4.42 A **False** nausea, headache, interaction with alcohol
B **False** anaerobes (Gram positive or negative) only
C **True**
D **False** serum
E **False** 200 mg 3× day

4.43 A **False**
B **True** and true soft tissue pockets
C **False** tissue is excised
D **False** secondary intention
E **False** not usually

4.44 Scaling and root planing
A are synonymous with subgingival curettage
B provoke more attachment loss than surgical procedures
C can prevent further attachment loss in deep pockets
D are more effective than surgical procedures in reducing pocket depth
E are more successful in treating posterior than anterior teeth

4.45 An apically repositioned flap
A does not preserve the attached gingiva
B does not increase the length of clinical crown
C is the procedure of choice for palatal pockets
D is a pocket elimination procedure
E does not require a periodontal pack

4.46 Reattachment procedures
A should not be used where aesthetics are a prime consideration
B decrease the width of attached gingiva
C reduce pocket depth by establishing a long epithelial attachment
D reduce pocket depth by establishing reattachment of connective tissue fibres
E heal by secondary intention

4.47 Fibrous gingival hyperplasia
A associated with hypertrichosis is pathognomonic of the familial type
B predominantly affects the interdental papillae only when phenytoin-associated
C may be associated with depressed immune responses
D is the only significant side effect of phenytoin
E associated with thickening of the facial features is a typical side effect of cyclosporin

4.48 Juvenile periodontitis is typically associated with
A defects in neutrophil function
B *Actinomyces israelii*
C *Capnocytophaga*
D *Actinobacillus actinomycetemcomitans*
E hyperkeratosis of the palms and soles in the Papillon-Lefevre syndrome

4.49 Gingival swelling in acute myeloid or myelomonocytic leukaemia
A is rare in children
B is caused by reactive hyperplasia of the periodontal tissues
C is caused by leukaemic cell infiltration of the gingivae
D may be associated with purpura
E may resolve with oral hygiene and antimicrobial treatment

(Answers overleaf)

4.44 A **False** curettage involves the deliberate attempt to remove pocket epithelium
B **False** clinical trials shown this not to be the case
C **True** demonstrated in clinical studies
D **False** surgical procedures generally reduce pocket depth to greater extent
E **False** difficulties arise around furcations

4.45 A **False** does preserve attached gingiva
B **False** does increase clinical crown length
C **False** cannot be undertaken on palate
D **True**
E **False** does to maintain position of flap margin

4.46 A **False** reattachment procedures minimise any increase in clinical crown
B **False** preserve attached gingiva
C **True**
D **False** may happen but less likely than epithelial attachment
E **False** heals by primary intention

4.47 A **False** phenytoin and cyclosporin can also cause gingival hyperplasia and hypertrichosis
B **False** also typical of cyclosporin
C **True** when cyclosporin is the cause
D **False** other effects include sedation, depressed folate metabolism, osteomalacia, rashes, coarse facies and hypersensitivity reactions
E **False** can be seen in both phenytoin associated and (particularly) the familial type

4.48 A **False** this has been identified only in some cases
B **False**
C **True**
D **True**
E **True**

4.49 A **True** acute lymphocytic leukaemia is the main form of the disease in children
B **False**
C **True**
D **True**
E **True**

5 Radiology

5.1 An intra-oral dental X-ray film
A is composed of a cellulose acetate base coated with a silver bromide emulsion
B has a thin sheet of lead foil that lies in front of the film to prevent over-exposure
C has an embossed dot on it which should be orientated towards the source of X-rays
D is exposed by the direct action of X-rays on the emulsion

5.2 An extra-oral dental X-ray film
A is exposed by light produced by the action of X-radiation on calcium tungstate
B uses intensifying screens as otherwise the time of exposure required would be far longer than the exposure time needed for intra-oral films
C requires slightly longer exposure time than that needed for a standard periapical radiograph
D gives somewhat better definition of the image than does a standard intra-oral film

5.3 Developing a dental radiograph
A involves chemically precipitating metallic silver
B too long results in an over-dark radiograph
C using too high a temperature results in a fogged, over-dark radiograph
D typically involves a developer containing sodium thiosulphate

5.4 Which of the following statements is/are true?
A Poor contrast on a radiograph may be caused by old developing solution
B Poor contrast on a radiograph may be caused by over-exposure and under-development
C A very pale dental radiograph of insufficient density may be due to high temperature of the developing solution
D Insufficient density on dental radiograph may be caused by over-exposure

(Answers overleaf)

Answers

5.1 A **True**
B **False** the lead foil is on the back of the film to absorb radiation and reduce back scatter
C **True**
D **True**

5.2 A **True** the calcium tungstate is the coating on the intensifying screen
B **True**
C **False** the extra-oral film requires a shorter exposure time than does a periapical film
D **False** intra-oral films usually have better definition than extra-orals

5.3 A **True**
B **True**
C **True**
D **False** this is the fixer!

5.4 A **True**
B **True**
C **False** the reverse is true
D **False** the reverse is true

5.5 Bite-wing radiography
A may reveal recurrent caries beneath restorations
B using the paralleling (long-cone) technique does not result in a lack of detail or definition because there is an increase in the anode–film distance
C is quicker using the bisected angle (short-cone) technique than the long-cone technique
D using the short-cone technique results in more enlargement of the image than does the paralleling technique
E using the parallelling technique has the advantage that there is no superimposition of the zygoma

5.6 Periapical radiography using the bisected angle technique
A gives an undistorted image
B in the maxillary molar region suffers from the disadvantage that the zygoma shadow often overlies the roots
C is poor at demonstrating interstitial caries
D is easily standardised for repeat views

5.7 The standard occipitomental (OM) radiograph
A is taken with the patient placing his chin against the film cassette
B gives a good view of fractures of the zygomatico-maxillary complex
C gives one of the best views of the mandibular condylar necks to show fractures there
D shows the floor of the orbit better than the 30°OM

5.8 In patients with suspected mandibular fractures
A an orthopantomogram is a useful radiograph to demonstrate fractures in the ramus and condyles
B oblique lateral radiographs may demonstrate ramus fractures
C if the oblique lateral views are used, a postero-anterior view of the mandible is also required
D the reverse Towne's view demonstrates fractures of the condylar neck

5.9 The radiograph showing one of the best views of a fracture of
A the orbital rim is the 30° occipitomental view
B the orbital floor is the 10° occipitomental view
C the orbital medial wall is the lateral skull view
D the orbital roof is the lateral skull view

5.10 The radiograph showing one of the best views of fractures of
A the anterior body of mandible is an orthopantomogram
B the coronoid process is the orthopantomogram
C the coronoid process is the PA mandible
D the condylar neck is the orthopantomogram or the Towne's view

(Answers overleaf)

5.5 A **True**
B **True**
C **True**
D **True**
E **True**

5.6 A **False**
B **True**
C **True**
D **False**

5.7 A **True**
B **True**
C **False** the fronto-occipital and rotational or panoramic tomography give better views of the condylar neck
D **False**

5.8 A **True**
B **True**
C **True**
D **True**

5.9 A **True**
B **False** the 30° occipitomental or tomograms are better views of the orbital floor
C **True** or occipitomental
D **True** or occipitomental

5.10 A **False** the spine is superimposed over the anterior body; an oblique lower occlusal or rotated oblique lateral are far better views of this area
B **False** The OM and PA are best
C **True**
D **True**

5.11 The radiograph showing one of the best views of fractures of
A the calvarium is the submentovertex
B the nasal bones is a lateral view of the nose
C the base of skull is the Towne's view
D the nasal septum is the occipitomental view

5.12 The radiograph showing one of the best views of fractures of
A the middle third of face is the occipitomental 10° and 30°
B the middle third of face is the lateral skull view
C the palate is the oblique upper occlusal
D the zygomatic arch is the submentovertex view

5.13 Submentovertex radiographs
A usefully demonstrate the zygomatic arches
B can demonstrate fractures of the skull base
C demonstrate the body of the mandible
D are indicated if there is suspicion of a cervical spine injury

5.14 Panoramic radiography of the jaws
A gives a lower radiation dosage than a 14 film, full-mouth intra-oral survey
B gives poor clarity in the lower anterior region because of the vertebrae
C is inadequate for demonstrating caries completely
D demonstrates the mandibular rami, condyles and coronoids
E produces less distortion of the mandibular views than do most lateral oblique views

5.15 Radiolucencies of the jaw may be seen in
A multiple myeloma
B giant cell tumours
C hypoparathyroidism
D chronic renal failure

5.16 Concerning radiolucent lesions
A a smooth sharply defined mandibular radiolucency associated with an unerupted third molar is most probably an ameloblastoma
B adenoameloblastoma is most common in the maxilla
C solitary bone cysts typically lack a true epithelial lining
D features that suggest a mandibular radiolucent lesion may be malignant include pain, sensory changes, and loosening of associated teeth
E solitary bone cysts heal after simple curettage

(Answers overleaf)

5.11 A **False** the SMV shows the base of skull, the calvarium is best shown in a PA skull view
B **True**
C **True** or the SMV or base of skull view
D **True**

5.12 A **True**
B **True**
C **True**
D **True**

5.13 A **True**
B **True**
C **True**
D **False** SMV radiographs should not be done if there is a suspected cervical spine damage as the neck has to be extended for this view

5.14 A **True** by at least a factor of × 3
B **True** except for Panorex I, Panoral and Status X machines
C **True**
D **True** but coronoids sometimes obscured
E **True**

5.15 A **True**
B **True**
C **False** radiolucencies may be seen in hyperparathyroidism
D **True** secondary hyperparathyroidism can be a complication of chronic renal failure

5.16 A **False** such a lesion is probably a dentigerous cyst
B **True**
C **True**
D **True**
E **True**

5.17 Which of the following statements is/are true?
A Widening of the periodontal space is seen in the minority of patients with systemic sclerosis
B Loss of the lamina dura is a typical feature seen in primary hyperparathyroidism affecting bones
C Resorption of several roots seen on radiography may be produced by orthodontic treatment
D Hypercementosis is a characteristic complication of Paget's disease
E Cementomas may produce radiolucencies or radio-opacities

5.18 Which of the following is true concerning radiation protection?
A In a practice using 100 films per week radiation monitoring badges should be worn by staff for 4-weekly periods at 6-monthly intervals
B When radiographs are being taken, all persons apart from dental practitioners and patients must leave the room
C X-radiation does not penetrate brick walls
D A lead apron of 0.25 mm gives adequate protection against a normal dental X-ray beam
E All patients should wear a lead apron for dental radiographic examinations

5.19 Which of the following are true about radiation protection?
A The international Commission on Radiological Protection recommendations should be followed
B The latest Department of Health and Social Security code on Radiological Protection in Dental Practice was published in 1975
C Each person in a dental practice in the UK is responsible for his/her protection from X-radiation
D If a female has not missed her menstrual period she can be regarded as not pregnant and can have routine radiographs without special precautions

5.20 Gallium scans
A may be useful in the diagnosis and assessment of sarcoidosis
B may be useful in the diagnosis and assessment of lymphomas
C usually show uptake strongly in normal salivary glands
D may localise metastatic carcinomas from the lungs, in the mandible
E show increased salivary gland uptake for up to 2 years after irradiation of the head and neck region

(Answers overleaf)

5.17 A **True**
B **True**
C **True** if excessive pressure is used
D **True**
E **True**

5.18 A **False** badges should be worn continuously unless less than 50 films a week are taken
B **True** but often ignored!
C **False**
D **False** a lead apron of 0.25 mm will protect adequately *only against scatter*
E **True**

5.19 A **True**
B **True**
C **False** although each person is expected to adopt reasonable behaviour in this and every other respect, the senior practitioner has the responsibility for radiation protection of all workers, patients and members of the public (Health and Safety at Work Act 1974)
D **False** all females of childbearing age should be assumed pregnant unless proven otherwise. Radiography should be restricted to the 10 days immediately following a period unless the beam is directed away from the abdomen, but even then a lead apron should be used and minimal exposures taken

5.20 A **True**
B **True**
C **False** salivary glands do not normally concentrate gallium
D **True**
E **True**

6 Oral pathology (including microbiology and immunology)

6.1 Viridans streptococci
A include *Streptococcus mutans, mitis, sanguis* and *salivarius*
B reliably produce haemolysis on blood agar plates
C account for 75% of cases of infective endocarditis in the UK
D include the main strains of cariogenic streptococci
E can be isolated from the blood stream in the majority of patients immediately after dental extractions

6.2 Bacterial extracellular polysaccharide production is
A a property only of *Strep. mutans*
B a prerequisite for cariogenicity
C a factor mediating attachment of bacteria to teeth
D an essential component of dental plaque
E characteristic of all oral streptococci

6.3 Certain strains of *Streptococcus mutans*
A have been proved to be the cause of human dental caries by means of controlled studies
B depend for their cariogenicity on the production of insoluble polysaccharides
C cause dental caries by the production of lactic and other acids, from fermentation of sugars
D are a cause of infective endocarditis
E will induce smooth surfaces caries in gnotobiotes

6.4 Lactobacilli are numerous in carious lesions because they
A are the main causative agent
B can produce insoluble extracellular polysaccharides
C can attach to smooth enamel surfaces
D are more virulently cariogenic for animals than *Strep. mutans*
E are secondary invaders

(Answers overleaf)

Answers

6.1 A **True**
B **False** haemolysis is variable in character
C **False** they account for about 40% of cases
D **True**
E **True**

6.2 A **False**
B **True**
C **True**
D **True**
E **False**

6.3 A **False** *Strep. mutans* may be an important organism but not the only one, but controlled studies in humans cannot conceivably be carried out
B **True**
C **True**
D **True**
E **True**

6.4 A **False**
B **False**
C **False**
D **False**
E **True**

6.5 Current views on the aetiology of dental caries are essentially an extension of
A the chemicoparasitic theory of W. D. Miller of 1890
B the proteolysis-chelation theory
C the 1924 hypothesis of Clarke that *Strep. mutans* was the cause
D gnotobiotic experimentation
E immunological findings in relation to *Strep. mutans*

6.6 Caries activity
A correlates well with the lactobacillus count in adults
B is greatly increased in immunodeficiency states
C is increased in xerostomia
D is directly related to the quantity of sugar eaten
E can be abolished with chlorhexidine

6.7 *Streptococcus mutans* is important in the aetiology of dental caries because:
A some strains produce insoluble extracellular polysaccharides
B all strains are cariogenic
C some strains produce extracellular glucans
D it has a preferential attachment mechanism for hard dental tissues
E it can attach to smooth tooth surfaces

6.8 Fluorosis typically
A results in increased resistance to caries
B produces enamel that is hypomineralised
C is caused by the ingestion of water containing fluoride levels over 2 ppm
D produces white patches in the enamel

6.9 In early enamel caries
A the translucent zone of enamel is more completely demineralised than the dark zone
B the dark zone is peripheral to the translucent zone of enamel
C the surface zone is more completely demineralised than the body of the lesion
D the appearance of the translucent zone of enamel is produced by removal of acid-soluble protein matrix only
E the striae of Retzius are obliterated in the body of the lesion

6.10 Translucent zones in dentine
A are permeable from both ends of the tubule
B form under acute carious lesions
C are so-called because the tubule is empty
D have intact odontoblasts at their pulpal ends
E can delay carious invasion of the dentine

(Answers overleaf)

6.5 A **True**
B **False**
C **True**
D **True**
E **False**

6.6 A **False**
B **False** no evidence
C **True**
D **False** the frequency of ingestion and formulation of product have a significant influence
E **False** any effect is minimal

6.7 A **True**
B **False**
C **True**
D **True**
E **True**

6.8 A **True**
B **True** in the opaque areas
C **True**
D **True**

6.9 A **False** the translucent zone is the advancing edge and the least decalcified
B **False** the translucent zone is peripheral to the dark zone
C **False** the body of the lesion is the most heavily decalcified: the surface appears to undergo remineralisation
D **False**
E **False** they may be more obvious

6.10 A **False** the peripheral end is obliterated first by peritubular dentine deposition
B **False** they usually form under chronic caries
C **False** the tubule is gradually obliterated by calcification
D **True**
E **True** to some degree

6.11 Dead tracts
A are permeable from their pulpal end
B are a response only to very slowly progressive caries
C appear more translucent than surrounding tubules in ground sections
D present a barrier to the progress of caries
E have intact odontoblasts at their pulpal ends

6.12 Dentinogenesis imperfecta is typically associated with
A bulbous crowns to the teeth
B short roots
C pulp canals obliterated by dentine
D absence of tubules from most of the dentine
E persistence of tubules in the mantle dentine

6.13 Abnormal dentine structure is a typical feature of some types of
A osteogenesis imperfecta
B amelogenesis imperfecta
C dentinogenesis imperfecta
D rickets
E brittle bone disease

6.14 A periapical granuloma typically
A consists of proliferating granulation tissue
B can form only if the periapical bone is resorbed
C shows evidence of local antibody production
D results from immunologically-mediated tissue damage
E contains epithelium

6.15 A 2 cm circumscribed radiolucent area related to the apex of a tooth
A is diagnostic of a periodontal cyst
B is never neoplastic in nature
C may be a cemental dysplasia
D will only have formed if the tooth is non-vital
E may show cholesterol crystals on aspiration

6.16 In gnotobiotes, destructive periodontitis
A typically shows severe inflammatory changes when Gram-negative bacteria are used
B is characterised by heavy plaque production irrespective of the type of bacteria used
C cannot be induced by Gram-positive bacteria
D is associated with increasing levels of cell-mediated hypersensitivity
E lymphocytes and plasma cells are abundant in the region of tissue destruction

(Answers overleaf)

6.11 A **False** they are caused by death of the odontoblast and deposition of calcified material over the pulpal ends of the tubules
B **False** they are usually a response to rapid caries
C **False** they are less translucent
D **False**
E **False** the odontoblasts are necrotic

6.12 A **True**
B **True**
C **True**
D **True**
E **True**

6.13 A **True**
B **False**
C **True**
D **True**
E **True** osteogenesis imperfecta

6.14 A **True**
B **True**
C **True**
D **False** the detection of immune responses does not mean that they are causing tissue damage
E **True**

6.15 A **False**
B **False**
C **True**
D **False**
E **True**

6.16 A **False** both Gram-positive and negative bacteria have been
B **False** reported to cause destructive periodontitis. Neither
C **False** induces a significant inflammatory reaction and
D **False** mononuclears are scanty in the periodontal tissues.
E **False** Only Gram-positive bacteria form large amounts of plaque when sugar is freely available. The level of cell-mediated immunity has also been reported to decline sharply when periodontal destruction is caused by *Eikenella corrodens*

6.17 Bacteria capable of causing periodontal destruction in gnotobiotes include
A *Bacteroides ochraceus*
B *Streptococcus mutans*
C *Bacteroides asaccharolyticus*
D *Eikenella corrodens*
E *Fusobacterium nucleatum*

6.18 Pathogens associated with active periodontal destruction in humans include
A *Actinobacillus actinomycetemcomitans*
B *Bacteroides (Capnocytophaga) ochraceus*
C *Bacteroides asaccharolyticus*
D *Eikenella corrodens*
E *Fusobacterium nucleatum*

6.19 *Actinomyces viscosus*
A is numerous in dental plaque in children
B can be shown to have no aetiological role in periodontal destruction
C can produce bone resorbing factors
D may cause dental caries

6.20 Which of the following are odontogenic cysts?
A Residual cyst
B Lateral periodontal cyst
C Nasopalatine cyst
D Gingival cyst
E Primordial cyst

6.21 Cysts
A in the ramus of the mandible are likely to be dentigerous, radicular or primordial
B heal more rapidly after complete enucleation and primary closure than after marsupialisation
C are more common in the maxilla than mandible
D of the solitary (bone cyst) type heal after simple exploration of the cyst cavity

6.22 An epithelial lining is typically found in
A sinuses
B fistulae
C aneurysmal bone cysts
D keratocysts
E mucocoeles

(Answers overleaf)

6.17 A **True**
B **True**
C **True**
D **True**
E **True**

6.18 A **True**
B **True**
C **True**
D **True**
E **True**

6.19 A **True**
B **False**
C **True**
D **True**

6.20 A **True**
B **True**
C **False** it arises from remnants of the nasopalatine canal lining
D **True**
E **True**

6.21 A **False** radicular cysts are most unlikely in the ramus
B **True**
C **False** the converse is true
D **True**

6.22 A **True**
B **True**
C **False**
D **True**
E **False** they are usually extravasation 'cysts'

6.23 Ciliated (respiratory type) epithelium is a characteristic finding in
A nasolabial cysts
B nasopalatine cysts
C primordial cysts
D antral polyps
E median palatine cysts

6.24 An ameloblastic fibroma
A is not a true neoplasm
B has a neoplastic connective tissue component
C may be mistaken for an ameloblastoma histologically
D is as common as ameloblastomas
E tends to recur after excision

6.25 Solitary bone cysts of the jaws
A do not cause displacement of related teeth
B do not cause resorption of teeth
C can extend up between the roots of teeth to become apparent on bite-wing films
D can resolve without surgical intervention
E are more common in the mandible

6.26 Cementomas
A are the next most frequent odontogenic tumours to the ameloblastomas
B are most commonly of the cementifying fibroma variety
C of the periapical cemental dysplasia variety affect predominantly the mandibular incisors and are usually asymptomatic
D of the gigantiform cementoma variety predominantly affect black, middle-aged females and usually need no treatment
E of the benign cementoblastoma type usually affect elderly individuals with multiple peri-radicular radio-opacities

6.27 Ameloblastoma typically
A derives from odontogenic epithelium
B involves the mandibular body and ramus
C is bilateral
D forms enamel
E is a slow-growing, painless tumour

6.28 Paget's disease
A bones are weaker than normal
B often causes increased urinary hydroxyproline excretion with hypercalcaemia
C affects males predominantly
D complications include fractures, hypercementosis, arteriovenous anastomoses, dentigerous cysts and osteosarcoma of the jaw

(Answers overleaf)

6.23 A **False**
B **True**
C **False**
D **True**
E **True**

6.24 A **False**
B **True**
C **True**
D **False** exceedingly rare
E **False**

6.25 A **False**
B **False**
C **True**
D **True**
E **True**

6.26 A **True**
B **False** periapical cemental dyplasia is the most common type
C **True**
D **True**
E **False** benign cementoblastoma affects predominantly young adults and is usually a solitary lesion

6.27 A **True**
B **True**
C **False** hardly ever
D **False**
E **True**

6.28 A **True**
B **False** hypercalcaemia is uncommon in Paget's disease
C **True**
D **False** dentigerous cysts are not a recognised complication and osteosarcoma of the jaws has hardly ever been recorded in Paget's disease

6.29 Odontogenic tumours
A are a mixed group of hamartomas and neoplasms
B have in common an origin from tooth-forming structures
C are rarely truly malignant
D are a diverse group of tumours of which ameloblastomas account for more than 50%
E are less common than sarcomas of the jaws

6.30 Odontogenic myxomas
A contain no epithelium
B often produce a soap bubble pattern of radiolucency
C consist of slender spindle cells with long, fine anastomosing processes
D have a matrix of collagenous connective tissue
E respond reliably to excision

6.31 In fibrous dysplasia
A foci of cartilage are a common histological finding
B an inflammatory infiltrate is characteristically present
C there are characteristic changes in the blood chemistry
D inflammatory cells are fairly evenly distributed throughout the lesion
E a ground-glass appearance is produced on radiographs
F there is no significant swelling of the affected bone

6.32 In monostotic fibrous dysplasia
A the diagnosis can be made with certainty entirely by the microscopic appearance of fine trabeculae of woven bone in a fibrous matrix
B foci of giant cells are frequently present
C the lesions are sharply demarcated from the surrounding bone
D the lesion ceases to progress with skeletal maturation
E the prognosis can be confidently predicted from the microscopic appearances

6.33 Adenomatoid odontogenic tumour
A is not encapsulated
B contains ducts
C contains microcysts lined by columnar cells
D contains whorls or strands of small, nondescript epithelial cells
E is likely to recur after simple enucleation

6.34 Ameloblastomas
A account for about 1% of all tumours and cysts of the jaws
B are probably formed from parts of the dental lamina
C often expand mainly in a lingual direction
D of the maxilla may involve the orbit and cranial base
E are usually radioresistant

(Answers overleaf)

6.29 A **True** since odontomes are often included
B **True**
C **True**
D **True**
E **False**

6.30 A **False**
B **True**
C **True**
D **False** the matrix is connective tissue mucoid
E **False** persistence for over 30 years even after repeated operations has been reported

6.31 A **False**
B **False**
C **False**
D **False**
E **True**
F **False**

6.32 A **False**
B **True**
C **False**
D **True**
E **False**

6.33 A **False**
B **False**
C **True**
D **True**
E **False**

6.34 A **True**
B **True**
C **True**
D **True**
E **True**

6.35 Calcifying epithelial odontogenic tumour typically
A contains dysplastic epithelium
B contains areas of calcification
C contains areas of hyalinisation
D contains amyloid
E is known as Pindborg's tumour

6.36 Solitary bone cysts
A are of unknown aetiology
B are usually a consequence of trauma
C frequently contain no fluid
D may have a thin, fibrous lining
E typically produce an area of radiolucency disproportionately large in relation to the amount of expansion of the jaw

6.37 Paget's disease of bone
A affects males more than females
B may cause bone expansion and pathological fractures
C may produce cranial neuropathies
D is associated with raised serum alkaline phosphatase, and urinary hydroxyproline excretion
E may produce hypercementosis

6.38 Giant cells are a characteristic feature of
A Paget's disease of bone
B cherubism
C sarcoidosis
D tuberculosis
E actinomycosis

6.39 Adenomatoid odontogenic tumour typically
A consists of whorls of odontogenic epithelium
B contains PAS-positive material
C contains foci of calcification
D has a fibrous capsule
E spreads perineurally

6.40 Ameloblastomas typically show
A mucous glands
B tall columnar cells
C tissue resembling stellate reticulum
D microcyst formation
E occasional squamous metaplasia

6.41 Which of the following are true neoplasms?
A Adenomatoid odontogenic tumour
B Calcifying epithelial odontogenic tumour
C Composite odontoma
D Granular cell myoblastoma
E Mucocutaneous haemangioma

(Answers overleaf)

6.35 A **True**
B **True**
C **True**
D **True**
E **True**

6.36 A **True**
B **False**
C **True**
D **True**
E **True**

6.37 A **True**
B **True**
C **True**
D **True**
E **True**

6.38 A **True**
B **True**
C **True**
D **True**
E **False**

6.39 A **True**
B **True**
C **True**
D **True**
E **False** it is non-invasive

6.40 A **False**
B **True**
C **True**
D **True**
E **True**

6.41 A **True**
B **True**
C **False**
D **False**
E **False**

6.42 Central giant cell lesions of the mandible
A are most frequently caused by primary hyperparathyroidism
B are usually neoplastic
C may be a sign of renal failure
D consist of osteoclast-like giant cells in a vascular matrix of spindle-shaped cells with plump nuclei
E are reparative lesions secondary to trauma and intramedullary bleeding

6.43 Primary hyperparathyroidism
A most commonly produces osteitis fibrosa cystica
B may be found in chronic renal disease, malabsorption or renal transplant rejection
C is associated with raised serum calcium levels
D is excluded by a normal serum calcium level estimation

6.44 Which of the following diseases are types of histiocytosis X and may involve the jaw bones?
A Tay-Sachs disease
B Hand-Schüller-Christian disease
C Gaucher's disease
D Letterer-Siwe disease
E Eosinophilic granuloma

6.45 Which of the following are true of the fibrous dysplasias?
A Fibrous dysplasia may involve one or several bones
B Polyostotic fibrous dysplasia with sexual precocity is the Albright syndrome
C Fibrous dysplasia predominantly affects males
D The lesions of fibrous dysplasia tend to stabilise during adolescence
E The diagnosis can be established by histological features

6.46 Paget's disease of bone may be associated with
A bone pain
B pathological fractures
C delayed healing of fractures
D hypercementosis
E osteosarcoma

6.47 Nuclear pleomorphism and hyperchromatism are typical features of
A squamous cell papilloma
B calcifying odontogenic tumour
C calcifying odontogenic cyst
D ameloblastoma
E erythroplasia

(Answers overleaf)

6.42 A **False**
B **False**
C **True**
D **True**
E **False** an obsolete idea — the cause is unknown

6.43 A **False** hypercalcaemia, gastrointestinal disturbances and nephrocalcinosis are most common. Bone lesions are now rare
B **False** this is secondary hyperparathyroidism
C **True**
D **False** serum calcium levels fluctuate and it is often difficult to exclude primary hyperparathyroidism until several calcium levels have been shown to be normal. Parathyroid hormone levels can now be measured

6.44 A **False**
B **True**
C **False**
D **False** this was thought to be a form of histiocytosis X but most now believe it to be a lymphoreticular tumour
E **True**

6.45 A **True**
B **True** plus skin pigmentation
C **False**
D **True**
E **False** the clinical and radiographic features, and behaviour are also essential to establish the diagnosis

6.46 A **True**
B **True**
C **False**
D **True**
E **True** but virtually never in the jaws

6.47 A **False**
B **True**
C **False**
D **False**
E **True**

6.48 Keratin formation can be seen in
A pleomorphic adenoma
B squamous cell carcinoma
C adenoid cystic carcinoma
D primordial cysts
E ameloblastoma

6.49 Which of the following are malignant tumours?
A Lymphoma
B Myelomatosis
C Adenolymphoma
D Lymphangioma
E Melanoma

6.50 Which of the following structures are eosinophilic?
A Nuclei
B Orthokeratin
C Muscle fibres
D Connective tissue fibres
E Bone

6.51 Neoplastic proliferation of squamous epithelium is characteristic of
A oral papilloma
B calcifying odontogenic tumour
C mucoepidermoid tumour
D fibroepithelial polyp
E adenoid cystic carcinoma

6.52 Mucous cells may be found in
A dental cyst linings
B mucous extravasation cyst linings
C mucoepidermoid tumours
D pleomorphic adenomas
E mucous patches

6.53 The term 'metastatic'
A refers to tumours developing at a site distant from the primary
B refers to direct extensions of tumour into adjacent tissues
C refers to infections in a site distant from the source
D is synonymous with invasiveness of a tumour

(Answers overleaf)

6.48 A **True**
B **True**
C **False**
D **True**
E **True**

6.49 A **True**
B **True**
C **False**
D **False**
E **True**

6.50 A **False**
B **True**
C **True**
D **True**
E **True**

6.51 A **True**
B **True**
C **True**
D **False**
E **False**

6.52 A **True**
B **False** there is no true, epithelial lining to an extravasation cyst
C **True**
D **True**
E **False** these are lesions of secondary syphilis

6.53 A **True**
B **False**
C **True**
D **False**

6.54 Labial carcinoma
A is more common than intra-oral carcinoma
B affects the upper lip more frequently than the lower lip
C may be associated with Herpes simplex virus
D has a better prognosis than lingual carcinoma
E is more common in fair skinned people exposed to strong sunlight

6.55 A pyogenic granuloma
A may be indistinguishable from a pregnancy epulis microscopically
B always shows a severe inflammatory reaction and great vascularity
C only forms on the gingival margins
D usually recurs after excision
E typically contains giant cells

6.56 Verrucous carcinoma typically
A affects males over 50 years of age
B metastasises early
C is associated with a prominent inflammatory cellular response
D responds better to surgery than to radiotherapy
E has a 5-year survival after surgery of about 20%

6.57 Which of the following are tumours of glandular tissue?
A Adenoid cystic carcinoma
B Adenomatoid odontogenic tumour
C Mucoepidermoid tumour
D Oncocytoma
E Adenolymphoma

6.58 An oncocyte is
A a type of cell seen in salivary gland adenomas
B a general term for tumour cells of any type
C a cell which may appear as a result of age changes in salivary tissue
D a large cell with granular eosinophilic cytoplasm

6.59 Pleomorphic adenomas typically
A show glandular acini
B consist of spindle cells and resemble a fibrous tumour
C show duct-like structures
D contain sheets of small, darkly-staining cells with no definible pattern or may consist predominantly of basophilic muco-myxomatous material
E are a consequence of long-standing sicca syndrome

(Answers overleaf)

6.54 A **True**
B **False** over 90% of lip carcinomas are on the lower lip (possibly)
C **True**
D **True**
E **True**

6.55 A **True**
B **True**
C **False**
D **False**
E **False**

6.56 A **True**
B **False** verrucous carcinoma invades locally and rarely metastasises
C **True**
D **True**
E **False** the 5-year survival approximates to 70%

6.57 A **True**
B **False**
C **True**
D **True**
E **True**

6.58 A **True**
B **False**
C **True**
D **True**

6.59 A **False** acinar structures are only rarely seen
B **True** occasionally
C **True**
D **True**
E **False** no evidence

6.60 Pleomorphic adenomas typically
A form soft, semi-fluctuant swellings
B recur after excision because of their invasive behaviour
C can be seen at virtually any age
D affect the parotid
E are of low grade malignancy

6.61 Adenolymphoma (Warthin's tumour) typically
A has no predilection for any group of salivary glands
B has an epithelial component consisting of tall columnar epithelial cells
C progresses to malignant lymphoma in approximately 10% of cases
D recurs after excision
E does not form cysts

6.62 Adenoid cystic carcinoma
A may be endosteal
B is a non-metastasising tumour comparable to a basal cell carcinoma
C has a 'swiss-cheese' appearance on histology
D characteristically shows perineural invasion
E responds reliably to excision

6.63 Adenoid cystic carcinoma typically
A shows a pattern of pleomorphic epithelial cells forming glandular acini
B consists of uniform small hyperchromatic cells
C produces clinically evident cysts
D forms ovoid groups of cells surrounding round spaces

6.64 Which of the following are true?
A Leiomyoma or leiomyosarcoma cannot develop as primary oral tumours because of the absence of smooth muscle there
B Granular cell myoblastoma is a neoplasm of striated muscle
C The tongue is one of the more common sites for a rhabdomyoma
D Weakness of the masticatory muscles is a typical feature of myasthenia gravis
E Malignant hyperthermia results from an heritable disorder of muscle metabolism

6.65 Benign lymphoepithelial lesion
A is indistinguishable histologically from Sjögren's syndrome
B may be followed by lymphomatous change
C consists mainly of lymphoid tissue
D is most common in the parotids
E has modified ducts as the main epithelial component

(Answers overleaf)

6.60 A **False** they are usually firm swellings
B **False**
C **True**
D **True**
E **False** they are benign (by definition) but may undergo malignant change occasionally

6.61 A **False** approximately 99% are in the parotids
B **True**
C **False**
D **False**
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6.62 A **True** but rarely
B **False**
C **True**
D **True**
E **False**

6.63 A **False** see B and D
B **True**
C **False**
D **True**

6.64 A **False** smooth muscle surrounds blood vessels
B **False** surprisingly, it appears to be neural in origin
C **True**
D **True**
E **True**

6.65 A **True**
B **True**
C **True**
D **True**
E **True**

6.66 Mucocoeles
A usually have a lining of compressed duct epithelium
B most frequently form in the floor of the mouth
C can result from trauma
D frequently show an inflammatory infiltrate
E can result from cystic change in salivary gland tumours

6.67 Stone formation is most common in
A the parotid
B the sublingual gland
C minor intra-oral glands
D the submandibular duct
E association with acute sialadenitis

6.68 Complications of irradiation of the mouth may include
A accelerated caries activity
B caries in unusual sites
C accelerated periodontal disease
D xerostomia
E tumour formation

6.69 Median rhomboid glossitis
A may show chronic candidosis microscopically
B is thought to result from persistence of the tuberculum impar
C forms only in the midline
D may be nodular in character
E is misnamed because inflammation is absent

6.70 Epithelial dysplasia is a well-recognised finding in some cases of
A leukoplakia of unknown cause
B smoker's keratosis
C alcoholic keratosis
D syphilitic leukoplakia
E chronic hyperplastic candidosis

6.71 Hyperkeratosis and acanthosis
A are essential features of premalignant dysplastic change
B are often features of smoker's keratosis
C are rarely associated with frictional keratosis
D are often associated with inflammation in the corium
E are usually reversible when the cause is removed

(Answers overleaf)

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B are often features of smoker's keratosis
C are rarely associated with frictional keratosis
D are often associated with inflammation in the corium
E are usually reversible when the cause is removed

(Answers overleaf)

6.66 A **False** they are usually extravasation cysts with no epithelial lining
B **False** the lower lip is a more common site
C **True**
D **True**
E **True** but only in so far as it applies to the literal derivation of the term. Cystic change in salivory tumours would not normally be referred to as a 'mucocoele'

6.67 A **False**
B **False**
C **False**
D **True**
E **False**

6.68 A **True**
B **True**
C **True**
D **True**
E **True**

6.69 A **True**
B **True**
C **True**
D **True**
E **False**

6.70 A **True**
B **False**
C **False**
D **True**
E **True**

6.71 A **False**
B **True**
C **False**
D **True**
E **True**

6.72 White sponge naevus
A has a well-defined margin where it abuts on normal mucosa
B is heritable as an autosomal recessive trait
C can involve any part of the oral mucosa
D is recognisable histologically by oedema of the cells of the superficial parakeratotic layer and absence of inflammation
E only affects the oral mucous membranes

6.73 Smoker's keratosis
A is the result of pipe smoking rather than cigarette smoking
B is recognisable microscopically by inflammation and swelling of minor salivary glands
C affects the palate
D is likely to be followed by malignant change in this area if not excised
E resolves rapidly if smoking is stopped

6.74 Acanthosis
A results from destruction of epithelial intercellular cement substance in pemphigus vulgaris
B is typically associated with hyperkeratosis
C is a typical feature of dysplastic epithelium
D means overgrowth of the prickle cell layer
E is caused by autoantibodies

6.75 Leukoplakia (keratosis)
A overall undergoes malignant change in 40% of cases if followed for 20 years
B of the floor of mouth (sub-lingual keratosis) has a high premalignant potential
C of the speckled variety is more frequently associated with Candida species than other types of leukoplakia
D is less likely to be premalignant than erythroplasia
E is best removed preferably with the cryoprobe if it has been present for more than 3 months

6.76 Erythroplasia
A is a red velvety patch on the oral mucosa most commonly seen on the soft palate or ventrum of tongue
B shows severe epithelial dysplasia or carcinoma in situ in over two-thirds of affected patients
C is most common in the elderly
D is more common than leukoplakia

(Answers overleaf)

6.72 A **False**
B **False** it is a dominant trait
C **True**
D **True**
E **False**

6.73 A **True**
B **True**
C **True**
D **False** if carcinoma develops it is usually not in the area of keratosis
E **True**

6.74 A **False** see D
B **False** there is no consistent relationship
C **False** there is no consistent relationship
D **True**
E **False**

6.75 A **False** about 5% undergo malignant change over 20 years
B **True** figures quoted vary widely but are in excess of 20% in some reports
C **True**
D **True**
E **False** there is no firm evidence that surgery is of benefit

6.76 A **True**
B **True**
C **True**
D **False** erythroplasia is far less common than leukoplakia but has a much worse prognosis

6.77 Oral lichen planus typically
A shows a band-like infiltrate of plasma cells
B is a type I immunological reaction
C is associated with erosions
D produces a pattern of striae on the buccal mucosa of both sides
E is associated with diabetes mellitus

6.78 Lichen planus is characterised microscopically by
A a mixed inflammatory infiltrate
B an infiltrate where T lymphocytes are prominent
C anti-epithelial autoantibodies
D a scattered inflammatory infiltrate with an ill-defined lower border
E liquefaction degeneration of basal cells

6.79 Geographic tongue
A may be seen in several members of a family
B is synonymous with median rhomboid glossitis
C may be seen in early infancy
D shows histological features similar to those of psoriasis
E shows no inflammatory cells on microscopy

6.80 Intact vesicles or bullae are frequently seen in the mouth in
A pemphigus vulgaris
B bullous erythema multiforme (Stevens-Johnson syndrome)
C lichen planus
D herpetic stomatitis
E mucous membrane pemphigoid

6.81 A haematoxylin and eosin stained smear might help in the diagnosis of
A herpes zoster
B candidosis
C mucous membrane pemphigoid
D pemphigus vulgaris
E bullous erythema multiforme (Stevens-Johnson syndrome)

6.82 Aphthous stomatitis typically
A shows specific diagnostic features microscopically
B begins in chidhood or adolescence
C is associated with autoimmune diseases
D is caused by B_{12} or folate deficiency
E can be reliably diagnosed by immunological testing

(Answers overleaf)

6.77 A **False** the infiltrate is of **T** lymphocytes almost exclusively
B **False**
C **True** but erosions are considerably less common than striae
D **True**
E **False** several studies have failed to confirm an association with diabetes

6.78 A **False**
B **True**
C **False**
D **False** the infiltrate typically forms a compact band-like zone with a well-defined lower limit
E **True**

6.79 A **True**
B **False**
C **True**
D **True**
E **False**

6.80 A **False**
B **False**
C **False**
D **True**
E **True**

6.81 A **True**
B **False** Gram stain is needed to show hyphae well
C **False**
D **True** may show acantholytic cells
E **False**

6.82 A **False**
B **True**
C **False** there is no association
D **False** there is an association in a small minority of patients
E **False** there are no diagnostic immunological findings

6.83 Causes of trismus include
A tetanus
B tetany
C pericoronitis
D metoclopramide
E pain-dysfunction syndrome

6.84 Which of the following structures are stained purplish-blue by haematoxylin?
A Nuclei of eosinophils
B Serous cell granules
C Keratin
D Reversal lines
E All basophilic structures

6.85 Sicca syndrome
A causes similar microscopic effects on salivary and other glands to those in Sjögren's syndrome
B is not associated with rheumatoid arthritis or other connective tissue disease
C tends to have less severe effects on gland function than Sjögren's syndrome
D differs from Sjögren's syndrome in its pattern of serum autoantibodies and HLA type
E typically shows autoantibodies to salivary ducts

6.86 Systemic lupus erythematosus
A is typically associated with antinuclear autoantibodies
B is more common in men
C causes oral lesions in about 20% of cases
D oral lesions may clinically resemble lichen planus
E may be associated with Sjögren's syndrome

6.87 Pemphigus vulgaris
A affects only adults with the highest prevalence in middle age
B oral lesions may be indistinguishable clinically from mucous membrane pemphigoid or erosive lichen planus
C may be excluded by a Tzanck smear
D is characterised by intra-epithelial bullae with deposition of IgG antibodies to the intercellular substance in the stratum spinosum

(Answers overleaf)

6.83 A **True**
B **True**
C **True**
D **True**
E **True**

6.84 A **True**
B **True**
C **False**
D **True**
E **True**

6.85 A **True**
B **True** by definition
C **False**
D **True** it may well be a distinct disease from Sjögren's syndrome
E **True**

6.86 A **True**
B **False**
C **True**
D **True**
E **True**

6.87 A **False** pemphigus may (rarely) affect children
B **True**
C **False** Tzanck smears are of limited value and a negative smear by no means excludes a diagnosis of pemphigus. A biopsy is needed.
D **True**

6.88 Pemphigus vulgaris
A is associated with antoantibodies to intercellular cement substances of stratified squamous epithelia
B produces subepithelial bulla formation
C shows acantholysis histologically
D is more common in women
E requires treatment with immunosuppressive drugs

6.89 The following features are more suggestive of Stevens-Johnson syndrome than of herpetic stomatitis
A intact small vesicles in the mouth
B ocular involvement
C a vesiculo-bullous rash
D recurrence within 6 months
E involvement of other mucous membranes

6.90 Geographical tongue may
A be a sign of anaemia
B frequently be associated with fissuring of the tongue
C be seen in the newborn or in infancy
D cause no complaint until middle age
E affect several members of a family

6.91 The following conditions affect the skin but not the oral mucosa
A white sponge naevus
B pigmented naevus
C malignant melanoma
D basal cell carcinoma
E contact dermatitis

6.92 Males are more susceptible than are females to
A carcinoma of the lower lip
B Sjögren's syndrome
C carcinoma of the tongue
D haemophilia
E Behçet's syndrome

6.93 Herpes zoster
A affecting the ophthalmic division of the trigeminal nerve may cause corneal damage
B can be followed by post-herpetic neuralgia
C neuralgia can simulate toothache
D can develop in an elderly person from contact with a case of chickenpox

(Answers overleaf)

6.88 A **True**
B **False** the lesion is intra-epithelial
C **True**
D **True**
E **True**

6.89 A **False**
B **True**
C **True**
D **True**
E **True**

6.90 A **False** no evidence
B **True**
C **True**
D **True**
E **True**

6.91 A **False**
B **False**
C **False**
D **True**
E **True**

6.92 A **True**
B **False** the female to male ratio is about 10 to 1
C **True**
D **True**
E **True**

6.93 A **True**
B **True**
C **True**
D **False** zoster is the result of reactivation of the virus and the immunopathogenesis is comparable in most respects with that of herpes labialis

6.94 Ludwig's angina
A involves both submandibular and submasseteric spa definition)
B may be associated with brawny swelling of the front neck extending down to the suprasternal notch
C is most likely to be a streptococcal or mixed anaerobic infection
D is often associated with mumps
E can cause death by asphyxia

6.95 Staphylococci
A are an important cause of osteomyelitis of the jaw
B are numerous in periodontal pockets in diabetics
C can cause angular stomatitis
D are not sensitive to miconazole

6.96 Temporomandibular joint pain-dysfunction syndrome
A is typically succeeded by TMJ rheumatoid arthritis
B may respond to antidepressants
C affects a group with higher than normal prevalence migraine
D mainly affects young females

6.97 Immunofluorescence microscopy can confirm the diagn
A Stevens-Johnson syndrome (bullous erythema multi
B lichen planus
C aphthous stomatitis
D pemphigus vulgaris
E epidermolysis bullosa

6.98 Behçet's syndrome
A is characterised by oral aphthae, genital ulceration a uveitis
B is more common in women since it is an autoimmu disease
C shows oral ulcers readily distinguishable from simp aphthous stomatitis
D is an organ-specific autoimmune disease
E responds well to systemic corticosteroid treatment

6.99 In immediate-type hypersensitivity reactions
A IgE is involved
B IgM is sometimes involved
C antigen reacts with antibody bound to the surface c cells
D hypotension, urticaria or bronchospasm may develo
E adrenaline subcutaneously is essential initial treatm severe reactions

(Answers

6.94 A **False** both submandibular and sublingual spaces
B **True**
C **True**
D **False**
E **True**

6.95 A **False** except in the case of fractures open to the skin such as gunshot injuries
B **False** apparently not
C **True**
D **False** imidazoles are both antifungal and antibacterial — staphylococci are often sensitive

6.96 A **False**
B **True**
C **True**
D **True**

6.97 A **False**
B **False**
C **False**
D **True** intra-epithelial deposits of IgG and C3
E **False**

6.98 A **True**
B **False**
C **False**
D **False**
E **False** there is no uniformly effective treatment

6.99 A **True**
B **False** IgM is not involved in immediate-type reactions
C **True**
D **True**
E **True**

6.100 Atopic allergy
A comprises the asthma, eczema, urticaria, hay fever group of diseases
B is an autoimmune disorder
C causes increased frequency of recurrent herpes labialis
D does not produce dental manifestations
E increases susceptibility to anaphylactic reactions to drugs

6.101 Immediate (type 1) hypersensitivity responses typically
A involve reaginic antibodies of IgE class
B cause release of histamine and vasoactive amines which mediate pathological sequelae
C may be associated with an eosinophilia
D include anaphylaxis
E are involved in periodontal and periapical tissue destruction

6.102 Patients with atopic allergy may
A be at risk from circulatory collapse
B complain of a dry mouth
C be at risk from respiratory obstruction
D die from anaphylaxis in the dental surgery
E not be safely given lignocaine-containing local anaesthetics

6.103 In autoimmune disease
A cross-reacting antibodies to bacteria may initiate the process
B a type II reaction may be involved
C T lymphocyte sub-populations may be implicated
D there are often strong HLA associations

6.104 The connective tissue diseases — rheumatoid arthritis and systemic lupus erythematosus, typically
A are organ-specific autoimmune diseases
B show hypergammaglobulinaemia
C show hypercomplementaemia in acute phases
D show multiple autoantibodies
E are mediated by immune complex (type 3) reactions

6.105 Autoimmune diseases
A show highly variable patterns of autoantibody production
B are more common in women
C are recognisable by the presence of specific serum antibody against the target tissue
D typically respond to immunosuppressive treatment in the acute phases
E often show autoantibodies to tissues which remain healthy

(Answers overleaf)

6.100 A **True**
B **False** it is an abnormal reaction to exogenous antigens
C **False** no evidence
D **True**
E **True**

6.101 A **True**
B **True**
C **True**
D **True**
E **False** no evidence — mast cells can be found in any inflammatory reaction

6.102 A **True**
B **True** because of the use of antihistamines
C **True**
D **True** because of drug allergy
E **False** lignocaine allergy is an astronomically remote hazard, and other anaesthetics such as procaine are more likely to cause hypersensitivity reactions

6.103 A **True** but virtually only in rheumatic fever, Henoch-Schönlein purpura and post-streptococcal glomerulonephritis
B **True**
C **True**
D **True**

6.104 A **False**
B **True**
C **False** hypocomplementaemia is typical of active diseases
D **True**
E **True** probably

6.105 A **True**
B **True**
C **False** serum autoantibodies may be found, but not by any means invariably
D **True**
E **True**

6.106 Acantholysis
A is the essential feature of epithelial dysplasia
B is the main feature of mucous membrane pemphigoid
C is synonymous with hyperplasia of the stratum spinosum
D is characteristic of pemphigus vulgaris
E is usually associated with circulating autoantibodies

6.107 Epithelial deposits of immunoglobulin
A IgG intercellularly in the stratum spinosum are characteristic of pemphigus
B IgG at the basement membrane zone, with C3 are typical of mucous membrane pemphigoid
C IgM at the basement membrane zone are characteristic of lichen planus
D IgA are characteristic of erythema multiforme

6.108 Vasculitis (arteritis) is a typical manifestation of immune complex (type 3) reactions and is seen in
A chronic periodontitis
B systemic lupus erythematosus
C serum sickness
D rheumatoid arthritis
E polyarteritis nodosa secondary to hepatitis B

6.109 Sjögrens syndrome
A is a type 1 hypersensitivity response
B is the association of dry eyes, dry mouth and a connective tissue disease
C is a generalised endocrinopathy
D is closely associated with HLA-D/DR3 and HLA-B8
E is associated only with rheumatoid arthritis

6.110 Rheumatoid factor
A is an autoantibody against synovial tissue
B is a common finding in rheumatoid arthritis
C is a common finding in Sjögren's syndrome, and systemic lupus erythematosus
D may cause immune complex formation, complement activation and inflammation in joints
E may be associated with other autoantibodies in connective tissue diseases

(Answers overleaf)

6.106 A **False**
B **False**
C **False** that is acanthosis
D **True**
E **True**

6.107 A **True**
B **True**
C **False** IgM may be found but is not characteristic of lichen planus
D **False** there are no characteristic immune deposits in erythema multiforme

6.108 A **False** notwithstanding what 'experts' say, vasculitis can only be seen in larger vessels than are present in the periodontal tissues
B **True**
C **True**
D **True**
E **True**

6.109 A **False** it is an autoimmune disease (a type 1 response is an anaphylactic type response)
B **True**
C **False** it is a generalised exocrinopathy
D **True**
E **False** it can be associated with any of the main connective tissue diseases and some liver diseases

6.110 A **False** it is an IgM antibody directed against host IgG usually
B **True**
C **True**
D **True**
E **True**

6.111 Rheumatoid arthritis, systemic lupus erythematosus and progressive systemic sclerosis (scleroderma)
A may show antinuclear antibodies
B may be associated with Sjögren's syndrome
C are more frequent in women
D are treated with anti-inflammatory or immunosuppressive drugs
E result from organ-specific autoantibodies

6.112 Selective IgA deficiency
A usually leads to rampant dental caries
B affects 1 in 600 of the population
C frequently has no apparent effects on health
D may be associated with atopic allergy or connective tissue disease
E frequently is associated with HLA-B8

6.113 Severe immunodeficiency typically
A is most often the result of immunosuppressive treatment, in the UK
B has severe infections as the most common complication
C may be associated with decreased susceptibility to tumours
D presents with respiratory infections
E affects cell-mediated immunity mainly, in patients on corticosteroids

6.114 Acquired Immune Deficiency Syndrome
A is characterised by failure of humoral immunity
B typically affects promiscuous male homosexuals
C relatively frequently shows oral lesions including herpetic infections, candidosis or Kaposi's sarcoma
D appears to be transmissible by blood or blood products
E has an estimated mortality of at least 60 to 80% after 2 years

(Answers overleaf)

6.111 A **True**
B **True**
C **True**
D **True**
E **False**

6.112 A **False** secretory IgM may increase to give compensatory protection
B **True**
C **True**
D **True**
E **True**

6.113 A **True**
B **True**
C **False** there is an increased susceptibility to malignant tumours associated with immunosuppressive treatment
D **True**
E **True**

6.114 A **False** the defect is in T lymphocytes
B **True**
C **True**
D **True**
E **True**

7 Oral medicine and the medically-compromised patient

7.1 Blood tests showing the presence of
A anti-HBs Ag infers immunity to hepatitis B
B anti-HBe Ag infers immunity to hepatitis B
C HBs Ag infers infectivity
D HBe Ag infers higher infectivity than HBs Ag
E anti-HBe Ag and anti-HBsAg infer that the patient can be treated as no hepatitis risk

7.2 In the case of hepatitis B
A the largest identifiable group of high-risk patients are travellers from abroad
B female homosexuals are a high risk group
C haemophiliacs do not show any increased frequency of serological evidence of infection since blood donors are screened for B antigen carriage
D dentists being constantly exposed to blood have an incidence of infection significantly higher than physicians
E dentists, since they usually do not work in gloves, show significantly more evidence of past infections than general surgeons

7.3 Acquisition of hepatitis B from a dental patient can be reliably avoided by
A wearing surgical gloves
B taking a careful medical history
C referring all known infective cases to hospital
D having a course of hepatitis B immune globulin
E treatment with interferon after exposure to the infection

7.4 Hepatitis B
A has an incubation period of 2 to 6 weeks
B infection in an adult is typically subclinical
C and cytomegalovirus infections may be transmitted in blood or blood products
D infection is common in male homosexuals
E is not transmitted by heterosexual intercourse

(Answers overleaf)

Answers

7.1 A **True**
B **True**
C **True**
D **True**
E **True**

7.2 A **True**
B **False** it is male homosexuals who are significantly more at risk
C **False** serological evidence of exposure to B virus is frequent in haemophiliacs because so many of them have had blood products before screening was available
D **False** in the National Health Service the incidence of infection among dentists, physicians and general surgeons is virtually the same
E **False**

7.3 A **False** many gloves perforate during use
B **False** most hepatitis carriers have had anicteric hepatitis, and not all patients will admit to being carriers
C **False**
D **False** this gives only passive and transient immunity
E **False** the value of interferon has not been established

7.4 A **False** the incubation period of hepatitis B is 2 to 6 months
B **True**
C **True** but donors are now screened for hepatitis B carriage. Non-A, non-B infection is now the most common cause of hepatitis after blood transfusion
D **True**
E **False**

7.5 Hepatitis
A is caused only by the hepatitis A, B and non-A non-B viruses
B when caused by hepatitis B virus usually causes jaundice and severe malaise
C caused by hepatitis B virus, spreads mainly parenterally and sexually
D caused by hepatitis B more commonly produces myalgia, arthralgia and rashes than hepatitis A

7.6 There is a risk of infection with hepatitis B from patients carrying
A HBsAg only
B HBsAb only
C HBeAg
D HBcAg
E DNA polymerase

7.7 Thrush
A is caused by a Gram negative fungus
B is characterised by a plaque of proliferating epithelial and other cells
C is a complication of immunosuppression or systemic disease
D can affect neonates in an epidemic fashion
E responds to nystatin

7.8 Syphilis
A is now the most common sexually transmitted disease in the UK
B may cause oral lesions at any stage
C may be readily diagnosed by finding treponemes on dark ground microscopy of an oral ulcer
D VDRL (Venereal Disease Research Laboratory) test is positive early in primary syphilis

7.9 Herpes simplex virus
A can cause painful whitlows if a patient with a cold sore plays with the lesion with his finger
B may cause serious eye infections
C is a DNA virus
D is a common cause of sexually transmitted disease
E infections may be troublesome or lethal in immunosuppressed individuals

(Answers overleaf)

7.5 A **False** hepatitis can be caused by other viruses and by other agents such as drugs
B **False** the majority of cases are subclinical as shown by serological studies
C **True**
D **True**

7.6 A **True**
B **False**
C **True**
D **True**
E **True**

7.7 A **False** fungi are Gram positive
B **True**
C **True**
D **True** in institutions or hospitals
E **True**

7.8 A **False** far more common than syphilis are herpes genitalis, non-specific urethritis and gonorrhoea
B **True**
C **False** oral treponemes (e.g. *T. microdentium*) are common
D **False** the VDRL may take some weeks to become positive but is usually positive by the secondary stage

7.9 A **False**
B **True**
C **True**
D **True** usually type 2
E **True**

7.10 Infectious mononucleosis
A may present with sore throat, enlarged cervical lymph nodes, and petechiae on the soft palate
B may cause mouth ulcers
C would be the suggested diagnosis in a patient presenting with generalised lymph node enlargement, sore throat and anaemia
D usually causes a positive Paul-Bunnell test

7.11 Coxsackie viruses
A are a cause of herpangina
B are herpes viruses
C are a cause of hand-foot-and-mouth disease and many other disorders
D can cause paralytic disease resembling poliomyelitis
E respond to idoxuridine

7.12 Coeliac disease
A is associated with hypersensitivity of the small intestine mucosa to gluten of wheat, rye and barley
B is found in 23% of patients with recurrent mouth ulcers
C rarely causes malabsorption
D produces pathognomonic features of short stature, glossitis and angular cheilitis

7.13 Crohn's disease
A can cause oral lesions such as mucosal cobblestoning or tags, facial swelling, angular cheilitis or ulcers
B affects mainly the jejunum
C often causes malabsorption, abdominal pain, loss of weight and sometimes fistulas
D is usually treated with salicylic acid
E can cause oral lesions secondary to folate or other deficiencies

7.14 Paterson-Kelly syndrome
A affects Asians predominantly
B consists of glossitis, dysphagia and hypochromic anaemia
C is more common in women
D is not associated with oral premalignancy
E has a strong association with post-cricoid carcinoma

(Answers overleaf)

7.10 A **True**
B **True**
C **False** anaemia in association with generalised lymph node enlargement raises the possibility of leukaemia
D **True** but some cases of glandular fever are Paul-Bunnell negative and caused by cytomegalovirus, *Toxoplasma gondii* or infectious lymphocytosis

7.11 A **True**
B **False** they are enteroviruses
C **True**
D **True**
E **False**

7.12 A **True**
B **False** about 3 to 5% of patients with recurrent mouth ulcers have coeliac disease
C **False** malabsorption is common in coeliac disease
D **False** these features are common in coeliac disease but not pathognomonic, being found in any malabsorption state

7.13 A **True**
B **False** Crohn's disease affects the ileum mainly
C **True**
D **False** salazopyrine is used
E **True**

7.14 A **False** it is most common in Northern Europeans, particularly Scandinavians
B **True**
C **True**
D **False**
E **True**

7.15 Anaemia
A may be a contraindication to general anaesthesia in dentistry
B in the UK is usually iron deficiency anaemia due to chronic blood loss
C may produce oral manifestations including ulcers, glossitis, candidosis and angular cheilitis
D in the Paterson-Kelly (Plummer-Vinson) syndrome is associated with glossitis and dysphagia
E caused by iron deficiency is hypochromic and microcytic with a reduced MCV and MCHC

7.16 Heparin
A anticoagulant effect can be monitored using the activated partial thromboplastin time or the thrombin time
B anticoagulant effect is lost within 6 hours of administration
C is only effective when given parenterally
D is used in ambulant renal dialysis patients
E will cause severe bleeding from extractions on a patient after dialysis

7.17 During dental treatment of a haemophiliac (Haemophilia A)
A antifibrinolytic agents such as tranexamic acid may help in the management of bleeding
B codeine and paracetamol are preferred analgesics
C the treatment is preferably carried out under the auspices of the local haemophiliac centre
D a factor VIII level of over 30% is needed for major and oral surgery

7.18 Factor VIII
A activity is reduced in haemophilia A and von Willebrand's disease
B deficiency is a contraindication to inferior dental blocks because of the risk of causing bleeding into the tissue spaces of the neck and asphyxia
C deficiency causes bleeding which characteristically ceases within minutes only to recur after an hour or so, and then persists
D deficiency can remain unrecognised until dental treatment precipitates haematoma formation or persistent bleeding
E levels are reduced in haemophilia as indicated by immunoassay

(Answers overleaf)

7.15 A **True**
B **True**
C **True**
D **True**
E **True**

7.16 A **True**
B **True**
C **True**
D **True**
E **True** But only if they are done within 6 hours of administration of heparin

7.17 A **True**
B **True** aspirin causes gastric bleeding and may enhance the bleeding tendency in haemophilia and other bleeding disorders
C **True**
D **True**

7.18 A **True**
B **True**
C **True**
D **True**
E **False** antihaemophilic factor in haemophilia is present but has defective coagulant activity. Deficiency is not detectable immunologically

7.19 Idiopathic thrombocytopenic purpura typically
A is associated with platelet-specific autoantibodies
B causes a prolonged bleeding time
C is often controllable by immunosuppressive treatment
D causes more prolonged haemorrhage than haemophilia
E affects females predominantly

7.20 Folic acid deficiency
A causes a microcytic anaemia
B may be a complication of poor diet, alcoholism, Crohn's disease, or pregnancy
C results in a positive Schilling test
D can result from treatment with phenytoin
E can cause severe oral aphthae

7.21 Following tooth extraction a patient presents with a bleeding socket. If the patient is not on anticoagulant drugs and is not known to have a bleeding diathesis
A the most likely cause of bleeding in this patient is an undiscovered bleeding diathesis
B if the patient is female she cannot have haemophilia
C full bleeding and clotting studies should be undertaken immediately
D after biting on a swab for 5 minutes the bleeding stops, the patient can be sent home

7.22 Which of the following statements is/are true?
A The most common leukaemia of children is acute lymphoblastic leukaemia
B All types of leukaemia are fatal within about 1 year
C Chronic myeloid leukaemia cells nearly always show a specific chromosome anomaly
D Leukaemia may present initially with bleeding from or ulcers in the mouth
E Gingival swelling and ulceration is well recognised in acute leukaemia in adults

7.23 Anginal pain is typically
A maximal over the apex of the heart
B precipitated by exercise or cold weather
C not relieved by rest
D often relieved by nitrates
E indicative of atherosclerosis

(Answers overleaf)

7.19 A **True**
B **True**
C **True**
D **False**
E **True**

7.20 A **False** megaloblastic anaemia results
B **True**
C **False** the Schilling test is a study of vitamin B_{12} absorption
D **True**
E **True**

7.21 A **False** local causes are more likely but haemorrhagic diseases are sometimes found in this way
B **False** theoretically possible in homozygotes but phenomenally rare
C **False** suture first. Investigation only if this fails to control bleeding
D **False** bleeding will almost certainly restart. Sutures are needed

7.22 A **True**
B **False** the childhood leukaemias often respond well to chemotherapy, while patients with chronic lymphatic leukaemia may survive for many years even without treatment
C **True** the Philadelphia chromosome
D **True**
E **True**

7.23 A **False** anginal pain is retrosternal
B **True**
C **False** relieved within minutes by rest
D **True**
E **True**

7.24 Infective endocarditis, typically,
A is caused by surgical procedures carried out in patients with heart defects
B follows extractions in 95% of those cases where a dental cause can be identified
C is more likely to follow surgery where there is severe gingival sepsis
D is more common in young adults than the elderly
E has a mortality approaching 30% when of dental origin

7.25 Patients with diabetes mellitus
A have a prevalence of about 4% but many others are undiagnosed
B are most likely to collapse in the dental surgery in hyperglycaemic coma
C should not eat lunch if they have been given an out-patient dental general anaesthetic that morning
D carry a blue card warning of their diagnosis
E of either the juvenile or maturity-onset types may develop accelerated periodontal disease

7.26 Alcohol abuse
A may lead to neuropathies
B may be associated with sialosis
C often causes deficiency of vitamin B_{12}
D frequently leads to cirrhosis
E produces macrocytosis of RBC as an early sign

7.27 Sickle cell
A disorders may produce anaemia with jaundice and a raised reticulocyte count
B trait is more common than sickle cell disease and far less serious
C sickling may be demonstrated by tests relying on the decreased solubility of the abnormal haemoglobin
D disorders are found mainly in patients of African or West Indian descent and haemoglobin electrophoresis may establish the diagnosis.

7.28 Hereditary haemorrhagic telangiectasia (HHT)
A is an autosomal recessive disease affecting particularly the skin and gastrointestinal tract
B frequently presents with epistaxis
C may be associated with anaemia
D may be associated with IgA deficiency
E rarely causes significant oral bleeding

(Answers overleaf)

7.24 A **True** but *dental* treatment accounts for only about 10–15% of cases
B **True**
C **True**
D **False** the peak age is now 60 and over
E **False** the mortality, when viridans streptococci are the cause, is 5–15%

7.25 A **True**
B **False** hypoglycaemia is a more common cause
C **False** collapse from hypoglycaemia is likely if lunch is not eaten
D **False** the blue card is for patients on systemic corticosteroids
E **True**

7.26 A **True**
B **True**
C **False** folate deficiency is common in alcoholics
D **True**
E **True**

7.27 A **True**
B **True**
C **True** this is the basis of the Sickle Dex test
D **True**

7.28 A **False** HHT is an autosomal dominant condition
B **True**
C **True** caused by chronic haemorrhage
D **True**
E **True**

7.29 The pain of trigeminal neuralgia
A is indistinguishable from post-herpetic neuralgia
B is indistinguishable from the trigeminal pain in some cases of multiple sclerosis in younger people
C is associated with flushing and nasal congestion on the affected side
D consists of lightning-like stabs of pain of short duration
E is typically precipitated by mild stimulation of superficial trigger zones

7.30 Trigeminal neuralgia
A affects elderly adults
B can spread to the opposite side
C responds better to anticonvulsants than analgesics
D is associated with recognisable pathology in the affected area
E is not precipitated by mastication

7.31 Hyperthyroid patients
A should usually be sedated before dental treatment
B are subject to cardiac arrhythmias
C should be given α-blockers to achieve rapid control of the signs and symptoms
D should have medication stopped before dental treatment since it may interact with local anaesthesia
E are likely to be anxious, irritable and difficult to manage

7.32 A 27 year old female complaining of oral pigmentation is considered possibly to have Addison's disease. The following features would support this diagnosis
A Hypotension
B Weakness and lassitude
C Nausea and anorexia
D Vitiligo (loss of pigmentation)
E Amenorrhoea

7.33 Addison's disease typically
A causes hyperpigmentation, low blood sodium levels and high blood pressure
B is confirmed biochemically by a low plasma cortisol level and impaired cortisol response to a synacthen (ACTH) test
C is an autoimmune disease in the majority
D may develop hypotensive collapse during dental treatment unless this is prevented by covering the operation with steroids
E should carry a blue warning card

(Answers overleaf)

7.29 A **False**
B **True**
C **False**
D **True**
E **True**

7.30 A **True**
B **False**
C **True**
D **False**
E **False**

7.31 A **True**
B **True**
C **False** β-blockers control signs and symptoms in hyperthyroidism
D **False** medical treatment of hyperthyroidism should not be stopped since a thyroid crisis may be precipitated
E **True**

7.32 A **True**
B **True**
C **True**
D **True** vitiligo can also be autoimmune and be associated
E **True**

7.33 A **False** patient with Addison's disease are hypotensive
B **True**
C **True**
D **True**
E **True** these cards are steroid warning cards, but steroids are used to treat Addison's disease

7.34 Which of the following statements is/are true?
A Patients with hypothyroidism should usually be sedated before dental treatment under local analgesia
B Patients with hyperthyroidism are subject to cardiac arrhythmias
C Medical treatment of hyperthyroidism should be stopped the day before dental treatment since it may interact with local anaesthesia
D In patients with hyperthyroidism diazepam is contraindicated

7.35 During pregnancy
A pregnancy epulides should usually be excised
B tetracyclines should be avoided
C the first 3 months are the months during which the fetus is at most risk from drugs and infections
D the last trimester is the time when there is a liability to hypertension if the patient is laid flat

7.36 The following are typical features of bone involvement in hyperparathyroidism
A subperiosteal erosion of the phalanges
B osteopetrosis
C pathological fractures
D renal stones

7.37 Hypoparathyroidism
A is usually iatrogenic
B is characterised by paraesthesia and sometimes facial twitching
C is associated with reduced plasma calcium and phosphate levels
D is almost invariably associated with chronic mucocutaneous candidosis

7.38 Serum alkaline phosphatase levels are typically raised in
A hypophosphatasia
B Paget's disease of bone
C pregnancy
D adolescence
E jaw metastases of prostatic carcinoma

(Answers overleaf)

7.34 A **False** sedatives may precipitate coma if given to patients with hypothyroidism
B **True**
C **False** medical treatment of hyperthyroidism should not be stopped since it may precipitate a thyroid crisis
D **False**

7.35 A **False** epulides in pregnancy can often be left to regress after parturition. Excision is indicated if there is interference with eating, or a serious cosmetic problem
B **True**
C **True**
D **False** hypotension may develop if the patient is laid flat for dental treatment

7.36 A **True**
B **False** bone destruction is seen in hyperparathyroidism involving the skeleton, but bone involvement in hyperparathyroidism is now exceedingly rare
C **True**
D **True**

7.37 A **True** hypoparathyroidism is usually caused by damage to the parathyroids during thyroidectomy
B **True**
C **False** in hypoparathyroidism, the plasma calcium is reduced, but phosphate is increased
D **False** candidosis is seen in some patients with idiopathic hypoparathyroidism but there is by no means a consistent association.

7.38 A **False** levels are reduced
B **True**
C **True**
D **True**
E **False** acid phosphatase levels are raised

7.39 Sexually transmitted disease — which of the following are true?
A The rash of secondary syphilis may develop into condylomata lata in moist areas of skin and is more common than oral ulcers
B The Venereal Diseases Research Laboratory (VDRL) test is a non-specific screening serological test and diagnosis of syphilis should be confirmed using a specific test such as the fluorescent treponemal antibody (FTA) test
C Almost 25% of patients with gonorrhoea in the UK have gonococci that are partially resistant to penicillin
D Penicillin-resistant gonococci usually respond to spectinomycin

7.40 Congenital syphilis
A appears when there has been infection in utero in the first trimester
B leads to collapse of the nasal bridge because of ulceration of the nasal mucosa
C may produce frontal bossing
D may produce mental handicap, blindness, deafness and eventually impotence

7.41 Ocular lesions are a well recognised complication of
A Stevens-Johnson syndrome
B Behçet's syndrome
C Sjögren's syndrome
D pemphigus vulgaris
E mucous membrane pemphigoid

7.42 Acute angio-oedema
A responds reliably to antihistamines
B is life-threatening when it affects the tissues round the larynx
C may be caused by C1 esterase inhibitor deficiency
D may be an immediate-type hypersensitivity reaction
E when hereditary is best managed prophylactically with danazol, an androgen

7.43 Patients complaining of a 'burning' tongue
A are usually young women
B may have a form of trigeminal neuralgia
C are likely to have a deficiency of vitamin B_2 or B_6
D may have cancerophobia
E may respond to antidepressant treatment

(Answers overleaf)

7.39 A **True**
B **True**
C **True**
D **True**

7.40 A **False** early syphilitic infection in utero is not compatible with survival of the fetus. Syphilis affects the fetus after the 5th month
B **True**
C **True** frontal bossing is also seen in many other conditions e.g. rickets, cleidocranial dysplasia
D **True**

7.41 A **True**
B **True**
C **True**
D **True**
E **True**

7.42 A **False**
B **True**
C **True**
D **True**
E **True**

7.43 A **False** they are usually women of middle age or over
B **False**
C **False** but there may be B_{12} or folate deficiency
D **True**
E **True**

7.44 Features of opiate addiction typically include
A constricted pupils
B thrombosed veins
C malnutrition
D hepatitis A
E diarrhoea

7.45 Sjögren's syndrome
A is the most common cause of persistent dry mouth
B develops in about 15% of patients with rheumatoid arthritis
C affects many endocrine glands
D causes swelling of salivary glands only in the minority of patients
E depends on parotid biopsy for diagnosis

7.46 Sjögren's and sicca syndromes
A are characterised by salivary gland acinar replacement by a lymphocytic infiltrate
B most commonly affect women over 50
C are caused by antibodies to gland acini
D may be associated with rheumatoid factor or antinuclear autoantibodies
E occasionally develop lymphomas

7.47 Rheumatoid arthritis
A may be treated with pencillamine which can cause oral lichenoid lesions or pemphigus
B treated with antimalarials or colloidal gold which can cause oral lichen planus
C is an organ-specific autoimmune disease
D rarely causes significant changes in the temporomandibular joints
E patients may carry a blue warning card

7.48 Acute bacterial sialadenitis is typically associated with
A tenderness and swelling of the affected gland
B pus exuding from the salivary duct
C leucopenia
D cervical lymph node enlargement
E xerostomia

7.49 Self-inflicted oral injuries
A are not a clinical entity
B may be associated with psychiatric disorders
C can readily be distinguished from natural disease
D may be seen in children

(Answers overleaf)

7.44 A **True**
B **True**
C **True**
D **False** hepatitis B and non-A, non-B are common in opiate addicts
E **False** opiates tend to cause constipation

7.45 A **False** drugs are probably the most common cause of dry mouth
B **True**
C **False** Sjögren's syndrome affects many *exocrine* glands
D **False**
E **False** labial gland biopsy avoids the risk of parotid fistula and nerve damage. Autoantibody studies are also necessary

7.46 A **True**
B **True**
C **False** antibodies to salivary *ducts* may be present, but do not appear to mediate gland damage
D **True**
E **True**

7.47 A **True**
B **True**
C **False**
D **False** *radiographic* changes in the TMJ are common, but symptoms are rarely significant
E **True** they may be on systemic corticosteroid treatment

7.48 A **True**
B **True**
C **False** leucocytosis is more characteristic of acute infection
D **True**
E **True** an important predisposing cause

7.49 A **False**
B **True**
C **False**
D **True**

7.50 Bell's palsy
A is an acute lower motor neurone facial palsy of unknown cause which can develop at almost any age, affects either sex equally and can recur
B in the initial stages should be treated by systemic corticosteroid therapy
C undergoes spontaneous resolution in about 80% of cases but can leave the remainder with permanent disability and disfigurement
D may be associated with pain in the jaw
E may be effectively treated by surgical decompression of the facial nerve in the stylomastoid foramen

(Answers overleaf)

7.50 A **True**
B **True**
C **True**
D **True**
E **False** the efficacy of surgical decompression for the treatment of Bell's palsy is doubtful

8 Therapeutics

8.1 Dental local anaesthetics containing 2% lignocaine with adrenaline 1:80 000

A in any dosage are contraindicated in patients with heart disease
B may cause tachycardia
C can produce allergic reactions, in which case the lignocaine is usually responsible
D or even prilocaine with felypressin, should not be used in the pregnant patient because of the oxytocic effects of adrenaline or felypressin
E cause hypertensive reactions in patients on tricyclic antidepressants

8.2 Local anaesthetic injections

A fail, usually because the anaesthetic solution is out of date
B followed by collapse is usually because of allergy to one of the constituents
C followed by trismus after the effect of inferior dental local anaesthetic block has subsided usually indicates trauma in the region of the medial pterygoid muscle and/or a haematoma
D except for local infiltrations should be avoided in patients with haemophilia

8.3 Nitrous oxide and oxygen

A is analgesic and mildly anaesthetic
B has no known adverse effects on cardiovascular function
C is not addictive
D can affect vitamin B_{12} metabolism in long-term usage
E can be used for emergency care immediately after myocardial infarction

(Answers overleaf)

Answers

8.1
A **False**
B **True**
C **False** it is far more likely to be caused by some other constituent, particularly the preservative
D **False**
E **False**

8.2
A **False** misplaced injections are the usual cause
B **False** fainting is the main cause
C **True**
D **True** but even a local infiltration can produce a large haematoma occasionally

8.3
A **True**
B **True**
C **False**
D **True**
E **True**

8.4 Halothane
A causes hypertension
B causes tachycardia
C causes bronchoconstriction
D may cause arrhythmias
E is the safest major anaesthetic agent in terms of the number of occasions it has been administered, so far introduced

8.5 Halothane
A not uncommonly produces headache
B is a volatile anaesthetic which may produce tremor
C sensitises the myocardium to adrenaline
D is particularly useful because of its analgesic activity
E if used frequently may produce hepatitis

8.6 Methohexitone (intravenously)
A may precipitate laryngospasm
B is less potent than thiopentone
C has a briefer duration of action than thiopentone
D may produce hypertension
E causes respiratory depression

8.7 Which of the following statements is/are true?
A Nausea and vomiting associated with anaesthesia are usually caused by fasting before the anaesthetic
B Prochlorperazine or metoclopramide are antiemetics useful to control post-anaesthetic vomiting
C Post-operative jaundice may be caused by adverse drug reactions or by viral hepatitis
D The wives of anaesthetists have an increased risk of spontaneous abortions

8.8 Atropine
A dries secretions such as saliva
B is contraindicated in patients with glaucoma
C depresses the pulse rate
D causes central nervous system depression
E may cause urinary retention

8.9 Severe xerostomia
A may be relieved by drugs with anticholinergic actions
B can be caused by sicca or Sjögren's syndrome
C promotes oral candidal and other infections
D can be caused by radiotherapy of the salivary glands
E can be caused by salivary calculus

(Answers overleaf)

8.4 A **False**
B **False**
C **False**
D **True**
E **True**

8.5 A **True**
B **True**
C **True**
D **False** halothane has little analgesic activity
E **True**

8.6 A **True** but the risk is much less than with thiopentone
B **False** methohexitone is 2 to 3 times as potent as thiopentone
C **True**
D **False** hypotension is more likely
E **True**

8.7 A **False** drugs are the usual cause of nausea and vomiting associated with anaesthesia
B **True**
C **True**
D **False** there is no reported increase in spontaneous abortions in wives of anaesthetists but female anaesthetists are at risk

8.8 A **True**
B **True**
C **False** atropine increases the pulse rate
D **False** atropine stimulates the CNS
E **True**

8.9 A **False** anticholinergic drugs *cause* xerostomia
B **True**
C **True**
D **True**
E **False**

8.10 Morphine
A is a derivative of opium
B constricts the pupils and is therefore contraindicated in patients with head injuries
C may cause vomiting
D can safely be given to asthmatics
E is contraindicated in the emergency management of myocardial infarction

8.11 Pentazocine
A does not cause respiratory depression
B has no adverse effects on the cardiovascular system
C does not cause pupillary constriction and can therefore safely be given after head injuries
D can be safely given to opiate addicts
E can be used for the initial management of myocardial infarction

8.12 Intravenous diazepam
A causes prolonged drowsiness
B is in a vehicle (propylene glycol) which is non-irritant to blood vessels
C has a 'second peak' effect some time later
D can be safely given to patients with emphysema
E is ineffective for some patients

8.13 Benzodiazepines
A may cause confusion in the elderly patient
B are anxiolytic
C are sometimes used to increase muscle tone
D are metabolised mainly in the liver
E are habit-forming

8.14 Diazepam
A and alcohol have an additive depressant effect on the central nervous system
B used with pentazocine causes no significant respiratory depression
C is contraindicated in glaucoma
D may cause venous thrombophlebitis when given intravenously
E counteracts the respiratory depression caused by barbiturates

(Answers overleaf)

8.10 A **True**
B **True**
C **True**
D **False** the respiratory depression and induction of histamine release could be lethal
E **False** it is still regarded as the drug of choice for its potent analgesic and sedative effects

8.11 A **False**
B **False**
C **False**
D **False** it is weakly addictive itself, and can also induce withdrawal symptoms as it is a partial opiate antagonist
E **False** it can increase the load on the heart and produce dysphoria

8.12 A **True** much longer than the patient may believe!
B **False** it may cause thrombophlebitis
C **True**
D **False** diazepam is a respiratory depressant
E **True**

8.13 A **True** but the risk is slight compared with barbiturates
B **True**
C **False** benzodiazepines produce muscle relaxation
D **True**
E **True**

8.14 A **True**
B **False** both are respiratory depressants and overdose can be lethal
C **True**
D **True**
E **False** diazepam increases it

8.15 Intravenous midazolam is a good drug for dental sedation because
A there are very few interactions with other drugs
B it is not a respiratory depressant
C it can be administered without elaborate equipment
D reflexes remain largely intact with modest doses
E there is amnesia for the period of operation

8.16 Barbiturates
A given intravenously cause no significant respiratory depression
B are preferable to the benzodiazepines as hypnotics
C given intravenously may precipitate laryngeal spasm
D are addictive
E have anticonvulsant properties

8.17 Codeine
A is available for dental use only in combination with other analgesics
B is prone to cause diarrhoea in high dosage
C is a useful antiemetic
D is the drug of choice for trigeminal neuralgia
E is Class B drug under the Misuse of Drugs Act

8.18 Aspirin is contraindicated in
A haemophiliacs
B gout
C patients with a peptic ulcer
D patients on oral hypoglycaemic drugs
E patients with pyrexia

8.19 Aspirin in adequate dosage is a good analgesic for post-extraction pain because of its
A anti-inflammatory action
B haemostatic activity
C high therapeutic ratio
D few side-effects
E lack of nephrotoxicity

8.20 Paracetamol
A has little or no anti-inflammatory action
B in mild overdose can cause liver damage
C is a useful antipyretic for children
D is a useful analgesic for patients with peptic ulcers
E and dextropropoxyphene are constituents of Distalgesic which in overdose causes cerebral effects as well as liver damage

(Answers overleaf)

8.15 A **True**
B **False** but respiratory depression is rarely significant in *healthy* patients
C **True**
D **True**
E **True**

8.16 A **False**
B **False**
C **True**
D **True**
E **False** for all practical purposes only phenobarbitone has useful anticonvulsant properties

8.17 A **True**
B **False** codeine causes constipation
C **False**
D **False**
E **True**

8.18 A **True**
B **True**
C **True**
D **True**
E **False** aspirin reduces fever

8.19 A **True**
B **False** aspirin interferes with haemostasis
C **True**
D **True**
E **True**

8.20 A **True**
B **True**
C **True**
D **True**
E **True**

8.21 Carbamazepine
A is an effective general purpose analgesic
B is effective during an attack of trigeminal neuralgia
C rarely causes blood disorders
D has similar uses to phenytoin in epilepsy
E is effective in controlling post-herpetic neuralgia

8.22 Migraine
A responds partially to simple analgesics
B affects females mainly
C is treated preferably with ergotamine rather than clonidine
D is typically associated with nausea and photophobia
E may respond to β-blockers when clonidine fails

8.23 Patients on monoamine oxidase inhibitors (MAOI) should not be given
A cheese
B pethidine
C aspirin
D wine such as Chianti
E coffee

8.24 Which of the following statements is/are true?
A Cytotoxic agents have particularly adverse effects on haemopoietic tissue and gastrointestinal mucosa
B Systemic corticosteroids, given long-term, cause impaired wound healing, lowered resistance to infection and increased secretion of ACTH
C Systemic corticosteroids, given long-term, may cause hypertension, peptic ulceration, a tendency to diabetes and atrophy of the adrenal cortex
D Patients on long-term systemic corticosteroids may require a steroid cover for operation but those on long-term topical steroids do not

8.25 Metronidazole
A has a broad spectrum and is likely to cause superinfections
B is effective against all anaerobic bacteria
C interacts with ethanol to produce flushing, palpitations, headache and nausea
D is likely to cause allergic reactions
E is used in a dose of 200 mg every 3 hours for the treatment of acute ulcerative gingivitis or pericoronitis

(Answers overleaf)

8.21 A **False** it is *not* an analgesic
B **False** it is prophylactic
C **True** but patients should be monitored
D **True**
E **False**

8.22 A **True**
B **True**
C **False** clonidine can be preventive and ergotamine is often poorly absorbed
D **True**
E **True**

8.23 A **True** } some cheeses and pethidine are the most
B **True** } dangerous and have caused fatal interactions with MAOI
C **False**
D **True**
E **False**

8.24 A **True**
B **False** long-term steroids cause reduced secretion of ACTH
C **True**
D **False** some topical corticosteroid preparations are sufficiently absorbed, for example from inflammed skin, to cause significant adrenocortical suppression

8.25 A **False**
B **False** metronidazole is effective *only* against anaerobes but some species are resistant
C **True**
D **False**
E **False** the dose of metronidazole is 200 mg tds

8.26 Which of the following statements is/are true?
A Many hospital staphylococci are penicillin-resistant but flucloxacillin is often effective
B *Staphylococcus epidermidis* ('*Staph. albus*') does not cause serious infections in humans
C *Staph. aureus* is often responsible for wound infections but not if the wound is within the mouth
D Actinomycosis should be treated with penicillin V 250 mg qds or tetracycline for 5 days
E Actinomycosis typically develops in the soft tissues below the angle of the mandible

8.27 Antibiotic prophylaxis against infective endocarditis is indicated before dental extractions in
A patients with prosthetic cardiac valves
B all patients with cardiac murmurs
C patients with bicuspid aortic valves
D patients who have had coronary artery bypass surgery using saphenous vein grafts
E patients who have had a previous attack of infective endocarditis

8.28 With regard to infective endocarditis
A if a susceptible patient is asymptomatic 2 days after a dental extraction covered by an appropriate antibiotic, he is out of danger
B antibiotic cover for a patient at risk should be given at least 24 hours preoperatively
C antibiotic prophylaxis provides absolute protection
D intramuscular amoxycillin is preferable to oral amoxycillin for prophylaxis
E it is most common after the age of 50

8.29 For a patient at risk from infective endocarditis about to have a general anaesthetic for dental extractions, the currently *recommended* prophylaxis (if there is no contraindication to the use of a penicillin) is/are
A 3 g amoxycillin orally 1 hour preoperatively
B 300 mg of benzyl penicillin by injection 1 hour preoperatively
C 3 g of amoxycillin by injection 1 hour preoperatively
D 1 g of amoxycillin by injection 1 hour preoperatively and 0.5 g orally 6 hours later
E 3 g amoxycillin by mouth 4 hours preoperatively and 3 g orally postoperatively

(Answers overleaf)

8.26 A **True**
B **False** it is an important cause of infections in immunosuppressed patients
C **True**
D **False** large doses of antibiotics for weeks or even months are needed to treat actinomycosis
E **True**

8.27 A **True**
B **False** many patients with murmurs have no cardiac lesion
C **True**
D **False** there appears to be no particular predisposition to endocarditis after saphenous vein grafts
E **True** very much so!

8.28 A **False** infective endocarditis may take weeks or months to develop
B **False** antibiotics should be given only long enough preoperatively to be absorbed
C **False**
D **False** amoxycillin can be given in higher dosage by mouth and is adequately absorbed to give fully effective blood concentrations
E **True**

8.29 A **False** nothing should be given orally up to 4 hours before GA
B **False** inadequate
C **False** 3 g amoxycillin cannot be given easily or painlessly intramuscularly
D **True**
E **False**

8.30 Amphotericin and nystatin
A are well absorbed from the gastrointestinal tract
B cause few side effects when given by injection
C are the most effective agents for the treatment of chronic candidosis
D are effective against bacteria as well as fungi
E have the same spectrum of activity as the imidazole antifungal agents

8.31 Anaphylactic reactions to penicillin
A are unknown in patients who have never previously been prescribed penicillin
B may include hypotension and collapse, sometimes with bronchospasm, urticaria or angioedema
C usually indicate the patient is likely to become allergic to erythromycin
D are more likely in patients with hay fever, eczema or asthma than other persons
E are not caused by oral penicillins

8.32 Cephalexin is the antibiotic of choice
A for patients allergic to penicillin
B for patients whose oral viridans streptococci are resistant to pencillin
C for most dental infections
D when an injectable antibiotic is needed
E for the prophylaxis of infective endocarditis

8.33 In an anaphylactic reaction
A the patient should be laid flat with legs raised
B 0.5 ml of adrenaline 1 in 1000 should be given immediately intramuscularly or subcutaneously
C the patient should be sent for desensitisation to the responsible antigen
D 200 mg of hydrocortisone should be given intravenously

8.34 Tetracycline
A is the alternative of choice for children allergic to pencillin
B has a synergistic effect with penicillin
C has an adverse effect on cardiac function
D is effective against anaerobes
E frequently causes allergic reactions

(Answers overleaf)

8.30 A **False**
B **False** amphotericin is particularly nephrotoxic and nystatin is too toxic to be given by injection
C **False** imidazole antifungals appear to be more effective for chronic hyperplastic candidosis
D **False**
E **False**

8.31 A **False** patients may be sensitised by, for example, exposure to traces of penicillin in milk
B **True**
C **False**
D **True**
E **False**

8.32 A **False** erythromycin is preferred
B **False** there is cross resistance between these drugs
C **False** it is indicated only where there are specific bacteriological indications — hardly ever in dentistry
D **False**
E **False**

8.33 A **True**
B **True**
C **False** this would be highly dangerous
D **True**

8.34 A **False** it is not bactericidal and also is contraindicated for children
B **False**
C **False** but it is nephrotoxic
D **True**
E **False**

8.35 Cotrimoxazole
A is a corticosteroid
B is ineffective against Gram-negative bacilli
C cannot be given by injection
D is widely used to protect patients with depressed marrow function against infection
E lacks the usual side-effects of sulphonamides

8.36 Idoxuridine
A is effective against all types of oral viral infection
B should be given systemically for severe infections
C has an effect on herpes simplex
D has an effect on herpes zoster
E will relieve the pain of post-herpetic neuralgia

8.37 Sodium hypochlorite in suitable concentrations
A should not be used on open wounds
B is non-corrosive
C is ineffective against *Candida albicans*
D is effective against hepatitis B virus
E causes staining of chrome-cobalt dentures

8.38 Which of the following statements is/are true?
A Acute anaphylaxis should be treated by immediate intravenous injection of 0.5 ml adrenaline (1 in 1000)
B The absorption of tetracyclines is reduced by milk and antacids
C The kidney is the main organ responsible for drug detoxification but the liver also plays a role
D Aspirin given to a patient on oral anticoagulants will aggravate any bleeding tendency and might produce severe haemorrhage from gastric erosions

8.39 The imidazole group of antifungal drugs
A are not absorbed from the gastrointestinal tract
B are effective only against fungi
C are more toxic than amphotericin when given systemically
D includes miconazole and ketoconazole
E are ineffective topically

(Answers overleaf)

8.35 A **False** it is sulphamethoxazole and trimethoprim — both antimicrobials
B **False**
C **False**
D **True**
E **False**

8.36 A **False**
B **False**
C **True**
D **True**
E **False**

8.37 A **False**
B **False**
C **False**
D **True**
E **True**

8.38 A **False** adrenaline should usually be given but intramuscularly or subcutaneously, although IV injection may be necessary if the circulation is failing and the patient already unconscious
B **True**
C **False** the converse is true
D **True**

8.39 A **False**
B **False** they are also antibacterial
C **False**
D **True**
E **False**

9 Minor and major oral surgery including traumatology

9.1 Which of the following statements are true?
A Preoperative assessment of a patient admitted to hospital for removal of third molars under a general anaesthetic should include a medical examination
B General anaesthetics in the dental chair are associated with an incidence of cardiac dysrhythmias greater than 30%
C Division of the tooth to aid the removal of a third molar significantly reduces postoperative trismus
D Removal of third molars may be associated with temporary postoperative changes in colour of the overlying skin

9.2 Surgical removal of mandibular third molars
A may be complicated by labial paraesthesia
B by the lingual technique, often relieves mesio-angularly impacted teeth
C whose roots overlie the inferior dental canal on radiographs may be complicated by labial anaesthesia
D by removal of buccal bone gives easier access and is therefore superseding the lingual split technique
E under local anaesthesia, is best carried out by buccal bone removal

9.3 After surgical exposure of teeth
A the tooth will remain buried if it fails to erupt within 6 months after operation
B a tooth with incomplete root formation is more likely to erupt
C if a tooth becomes re-covered by mucosa after exposure it cannot erupt fully
D some teeth need to be guided orthodontically into the dental arch

(Answers overleaf)

Answers

9.1 A **True**
B **True**
C **True** trismus is caused by many factors including surgical trauma, infection etc.
D **True**

9.2 A **True**
B **True**
C **True** but variably
D **False** not necessarily — the lingual approach may be far easier but each case must be judged on its own merits
E **True** the lingual split technique depends on use of a chisel

9.3 A **False** it can take up to 2 years to erupt
B **True**
C **False**
D **True**

9.4 Buried teeth may
A erupt late in life
B become involved in cyst formation
C undergo resorption
D promote malignant tumour formation
E cause no complications

9.5 The following are recognised long-term, occasional complications following the removal of wisdom teeth
A Actinomycosis
B Temporomandibular septic arthritis
C Lingual nerve anaesthesia
D Inferior dental nerve anaesthesia

9.6 After surgical removal of a lower third molar
A if the inferior dental artery is torn it should be clipped and tied
B patients quite often complain of numbness of the tip of the tongue which disappears within 2 to 3 days
C the soft tissue swelling is directly proportional to the difficulty experienced in removing the tooth
D corticosteroids may reduce the postoperative swelling

9.7 A patient who has had his lower wisdom tooth removed under local anaesthetic may develop the following problems
A Trismus
B Dry socket
C Fractured mandible
D Part of tooth retained
E Numbness of the lower lip

9.8 Surgical removal of an upper wisdom tooth
A has a greater chance of producing an oroantral fistula than when an upper first molar is removed
B using an instrument placed around the maxillary tuberosity during extraction should prevent the tooth being dislodged upwards into the pterygoid venous plexus
C rarely produces infraorbital paraesthesia
D followed by postoperative bleeding is usually due to an unrecognised fracture of the maxillary tuberosity

(Answers overleaf)

9.4 A **True**
B **True**
C **True**
D **False**
E **True**

9.5 A **True**
B **False** not in the United Kingdom
C **True** recent studies suggest that this is very unusual
D **True**

9.6 A **False**
B **True**
C **False**
D **True**

9.7 A **True**
B **True**
C **True**
D **True**
E **True**

9.8 A **False**
B **True**
C **True**
D **False**

9.9 Impacted canines
A in the mandible are rarely found lingual to the ridge or in a horizontal position
B are often associated with pericoronitis
C should not be surgically removed if they can be moved orthodontically into normal position
D in the maxilla that are surgically removed can be complicated by displacement of the tooth into the maxillary sinus or pterygoid space

9.10 When exposing a palatally unerupted canine
A bone must be removed from the tip of the crown or the tooth is unlikely to erupt
B a piece of orthodontic band attached to a chain may be cemented to the tooth for traction purposes
C slightly moving the tooth at the time of operation may increase cementoblast activity and improve the chance of tooth eruption
D a canine with an apical hook seen on radiography is less likely to erupt after exposure

9.11 Following the competent removal of a canine from the palate, the following are recognised as postoperative complications or problems
A anaesthesia of the anterior part of the palate
B a boggy haematoma in the anterior palate
C loose upper incisor teeth
D an oronasal fistula

9.12 An elevator
A should not be used to lever a root or tooth
B is the most useful means of removing maxillary third molars
C should be applied to the concave surface of a root
D of the Warwick-James pattern is useful as a flap retractor

9.13 Following the removal of a lower molar tooth under local anaesthetic, the patient has trismus 4 weeks later
A A radiograph should be taken to ensure that the local anaesthetic needle has not been broken and left in the medial pterygoid muscle
B A haematoma of the temporomandibular joint should be suspected
C A submasseteric abscess could be the cause
D A medial pterygoid haematoma could be the cause

(Answers overleaf)

9.9 A **True**
B **False**
C **True**
D **False** the pterygoid space is far removed from the maxillary canine position

9.10 A **True**
B **True**
C **False** no evidence for this statement
D **False** no evidence for this statement

9.11 A **True**
B **True**
C **False**
D **False**

9.12 A **True**
B **True** but care should be taken to avoid displacement of the tooth into antrum or infratemporal fossa
C **False** elevators should be applied to the convex root surface
D **False** use a flap retractor!

9.13 A **False** very unlikely
B **False**
C **True**
D **True**

9.14 An inhaled tooth fragment
A may cause a lung abscess
B may cause bronchiectasis
C usually enters the right bronchus
D will be coughed out spontaneously and therefore no treatment is needed

9.15 A root in the maxillary antrum
A should be radiographed using both posteroanterior and lateral views
B may be asymptomatic
C may arrive there by misuse of an elevator
D may be associated with an oroantral fistula

9.16 If a patient presents with an oroantral fistula 3 weeks after an extraction
A only surgical intervention will close the fistula
B an antral regime of antibiotics, nose drops and inhalations should be started
C an upper first molar extraction was the most probable cause
D Whitehead's varnish plug placed in the fistula will aid healing

9.17 With regard to apicectomy
A it is undesirable to apicect a lower second premolar because of the risk of mental nerve anaesthesia
B apicectomy of an upper first premolar may involve entering the maxillary antrum
C it may be almost impossible to identify the palatal root of an upper first premolar for the purpose of placing a retrograde root filling
D careful retrograde root filling with amalgam together with a good filling in the crown of the tooth will almost certainly cause resolution of periapical infection without the need for a conventional root filling

9.18 Which of the following incisions are recognised standard approaches for an apicectomy?
A Semilunar
B Rectangular
C Cervical margin of teeth with buccal extensions
D Figure of eight

(Answers overleaf)

9.14 A **True**
B **True**
C **True**
D **False** it may be retained and a chest radiograph is almost invariably indicated

9.15 A **True** to ensure the root is not simply subperiosteal
B **True**
C **True**
D **True**

9.16 A **False**
B **True**
C **True**
D **False**

9.17 A **True**
B **True**
C **True**
D **False** a lateral root canal may be present

9.18 A **True**
B **True**
C **True**
D **False**

9.19 If a patient is having an apicectomy and a through and through root filling with a gutta percha point under a general anaesthetic in an operating theatre
A the gutta percha should not be cut and sealed with the use of a naked flame because of the risk of an explosion in the operating theatre
B the gutta percha point should be pulled from the apical end to get a good seal in the root canal
C postoperative X-ray of the apicectomised tooth will show the same appearance as a root filling carried out in the standard way
D the instillation of a broad spectrum antibiotic powder into the bony hole reduces the risk of postoperative infection

9.20 Which of the following statements is/are true?
A The brain is so well protected by the skull that (provided that the skull is not fractured) the underlying brain is not injured by a blow to the vault
B The coronal suture separates the frontal from the parietal bones of the skull
C The metopic suture of the skull fuses in about 8% of cases but remains open in the remainder
D The anterior and posterior fontanelles of the skull close by about 6 months of life

9.21 Which of the following statements about facial fractures are correct?
A The classic appearance of a Le Fort III fracture is the 'Panda Facies': two black eyes, (bilateral circumorbital ecchymosis) and facial oedema
B Traumatic facial nerve palsy should be looked for as surgical correction may be needed
C Cast-cap splints take at least 5 hours of laboratory time to construct
D The posterior wall fractures of the frontal sinus are easily recognised on lateral skull views

9.22 Radiographs of patients after maxillofacial trauma
A may have fracture lines obscured by oedema
B should include skull views to exclude skull fractures and aerocoele
C which show cloudiness of the maxillary antra usually indicate sinusitis
D may detect windscreen glass fragments in the tissues

(Answers overleaf)

9.19 A **True** modern anaesthetic gases are unlikely to explode but the risk is there. Use a cutting diathermy with a small blade — this is triple earthed
B **False** excessive pulling will elongate and narrow the gutta percha causing a poor seal
C **False** because of the obliquity of an apicectomy cut the X-ray appearance is different from that of an ordinary root canal treatment
D **False** there is no evidence for this statement

9.20 A **False** the vault is relatively elastic and a blow may cause brain damage in the absence of a skull fracture. There may also be a contre-coup injury
B **True**
C **False** the metopic suture fuses in the 5th year in most but persists in about 8%
D **False** both anterior and posterior fontanelles remain patent until about 1 year

9.21 A **True**
B **True**
C **True**
D **False** the thick bone of the calvarium often hides these fractures

9.22 A **True**
B **True**
C **False** antral cloudiness is usually caused by bleeding
D **True** glass may be radiopaque

9.23 Following facial fractures
A it is normally perfectly satisfactory to stabilise a malar fracture by packing the antrum provided the posterior superior aspect of the antrum is firmly packed
B the pull of the masseter muscle commonly produces postoperative displacement of the zygoma after treatment of a zygomatic fracture
C enophthalmos may be readily corrected by bone or alloplastic grafts to the orbital floor
D damage to the right optic nerve will produce loss of the left consensual reflex

9.24 Le Fort I fractures characteristically
A present with bilateral circumorbital ecchymoses and facial oedema
B cause cerebrospinal rhinorrhoea
C cause infraorbital anaesthesia
D cause bleeding into the antra

9.25 Which of the following statement is/are correct about mid-face fractures?
A Orbital blow-out fractures only involve the orbital floor
B Cerebrospinal fluid may accumulate in the cavernous sinus after a Le Fort II fracture
C The sphenoidal bone directly traumatises the cribriform plate in a high level middle third facial fracture
D Most cerebrospinal fluid leaks after mid-face fractures need no neurosurgical repair
E If CSF rhinorrhoea continues for over a week after reduction and stabilisation, neurosurgical repair is usually indicated

9.26 Which of the following statements are true?
A The infraorbital nerve lies in a thick bony canal
B The infraorbital fissure forms a line of weakness along which most malar fractures run
C Orbital blow-out fractures only produce significant enophthalmos if periorbital fat herniates into the fracture
D Detachment of the medial canthal ligament cannot be identified without radiographs

(Answers overleaf)

9.23 A **False** this may stabilise the fracture, but runs the risk of forcing bony fragments into the optic nerve
B **False** it inserts into the arch (a process of the temporal bone)
C **False** established enopthalmos is notoriously difficult to correct
D **True**

9.24 A **False** Le Fort I fractures are at the level of the floor of the nose
B **False** remember the fracture lines are far removed from the cranial fossae
C **False** this nerve is usually above the fracture line
D **True**

9.25 A **False** orbital blow-out fractures may involve the wall
B **False**
C **False**
D **True** but not all neurosurgeons would agree!
E **True**

9.26 A **False**
B **True**
C **True** fat necrosis may also be significant
D **False** traction on the lateral canthal ligament (under GA) will demonstrate mobility of the eye

9.27 With a blow-out fracture
A it has been established beyond doubt that such an injury is caused by the eyeball being forced backwards thus raising the intraorbital pressure and causing the thin orbital floor to blow-out
B a coronal tomogram shows a small blow-out of the orbital floor postero-laterally. If the patient has diplopia it must be repaired
C early repair of the orbital floor always prevents enophthalmos
D a patient has severe restriction of eye movement and radiographs show a definite defect of the bony orbit with herniation of the soft tissue. The orbital floor must therefore be explored

9.28 In a fracture of the middle third of face which involves the cribriform plate, cerebrospinal rhinorrhoea, typically
A must be investigated if present for more than 24 hours after the injury
B increases or is revealed by tipping the patient head and face downwards
C is associated with an aerocele
D ceases once the maxilla is stabilised

9.29 Which of the following statements about facial injuries is/are true?
A Lacerations severing the aponeurosis of the levator palpebrae superioris from the tarsal plate resolve spontaneously
B The inferior oblique muscle is the only orbital muscle not to take its attachment from the tendinous ring
C Damage around the intraorbital muscles may be associated with a traumatic mydriasis
D retro-bulbar haemorrhage is common but only rarely produces raised extraocular pressure
E damage to the retina following raised intraorbital pressure from a retro-bulbar haemorrhage only develops if the central retinal artery is occluded

9.30 Gunshot wounds of the face
A caused by low velocity hand-gun bullets typically are less serious than those caused by high velocity missiles
B caused by low velocity missiles have a deceptive external appearance in that there is a small entrance wound hiding extensive internal damage
C caused by high velocity bullets are often sterile
D caused by high velocity bullets must be sutured as soon as possible

(Answers overleaf)

9.27 A **False**
B **False** a small postero-lateral blowout is unlikely to trap the extraocular muscles. Repair is therefore not mandatory
C **False**
D **False** he could have a medial wall blow-out

9.28 A **False** most CSF leaks stop once the fracture is stabilised. If they persist 1 week after reduction a neurosurgical opinion should be sought
B **True** will reveal an occult leak
C **False** a rare complaint
D **True**

9.29 A **False** ability to open upper lids should be tested if the upper lid has been lacerated
B **True**
C **True**
D **True**
E **False**

9.30 A **True**
B **False** these are features of high velocity wounds
C **False** 'high velocity' wounds are often contaminated with bacteria
D **False** delayed primary closure 4 to 5 days indicated because of the extensively damaged and contaminated tissue

9.31 Nasal fractures
A may be complicated by traumatic telecanthus
B even if minor may be followed by bilateral ecchymosis and facial oedema
C need not be reduced for some weeks
D may result in the nasal complex telescoping into the frontal sinus

9.32 Which of the following statements regarding facial fractures are true?
A Splitting of the palate may be caused by a blow to the mandible and is more common in a Class II malocclusion
B The paranasal sinuses being remote from the mouth are normally sterile when involved in facial fractures
C Although prompt stabilisation of maxillary fractures may reduce blood and CSF loss this is not, in itself, an indication for early surgery
D Brisk nasal haemorrhage following facial fractures is rare but can be easily controlled by packing the anterior nares
E In the presence of hypovolaemic shock, sources of blood loss other than the facial skeleton should be examined

9.33 Diplopia
A is most obvious when trying to look down and laterally to the affected side if the patient has a lesion of the trochlear nerve
B is most obvious when the patient looks towards the affected side if he has a lesion of the abducens nerve
C and ptosis may be caused by a lesion of the oculomotor nerve
D in an oculomotor nerve lesion the eye on the affected side points down and laterally

9.34 Which of the following statements is/are true?
A A blow on the eye may lead to a subcutaneous haemorrhage in which both lids simultaneously discolour within about an hour
B If there is trauma to the skull leading to haemorrhage beneath the frontalis muscle, blood appears first in the upper eyelid within 30 minutes
C After a blow to the eye, subconjunctival haemorrhage may follow and can be differentiated from a fracture involving the orbital walls because its posterior limit is visible
D A subconjunctival haemorrhage rapidly turns purple because of the vascularity of the area and congestion

(Answers overleaf)

9.31 A **True**
B **True**
C **False** established nasal deformity is difficult to treat
D **True**

9.32 A **True**
B **False** fractures produce a haematoma which may well become infected
C **True**
D **False** packs in the nasal apertures are rarely successful but often careful packing from behind forward is effective
E **True**

9.33 A **True**
B **True**
C **True**
D **True**

9.34 A **True**
B **False** blood appears in the upper lid only after a day or two
C **True** usually
D **False** subconjunctival haemorrhage remains red for a substantial period because there is ready diffusion of oxygen across the thin conjunctiva

9.35 Which of the following statements is/are true?
A The skull base develops in membrane, the skull vault in cartilage
B The skull vault is more fragile than the skull base
C Fractures of the anterior cranial fossa may involve the ethmoidal, frontal or sphenoidal air sinuses and be accompanied by haemorrhage into the nose
D Fractures of the anterior cranial fossa may involve the cribrform plate and result in anosmia

9.36 Which of the following statements is/are true?
A Patients with a skull fracture should be admitted for observation for at least 24 hours
B If convulsions begin within 1 week of a head injury, epilepsy is likely in the future
C Early epilepsy after a head injury usually indicates an intracranial haematoma
D Diplopia after a maxillofacial injury indicates that there has been damage to the IIIrd, IVth or VIth cranial nerve

9.37 Which of the following statements is/are true?
A The most important observation following trauma to the eye is to test visual acuity
B A dilated pupil may be associated with damage to the oculomotor nerve, the use of atropine, or Horner's syndrome
C Diplopia can result from enophthalmos associated with orbital floor or wall fractures
D Disruption of the bony margins of the superior orbital fissure leads to the superior orbital fissure syndrome with enophthalmos

9.38 Which of the following statements is/are true?
A If an intracranial haematoma develops in a patient with a maxillofacial injury there is likely to be an arterial haemorrhage but usually no skull fracture
B Skull radiography is needed to exclude a skull fracture after a head injury because clinical examination is insufficiently sensitive
C Deterioration of consciousness starts as soon as an intracranial haematoma begins to form
D Computerised axial tomography is indicated if, after a head injury, consciousness fluctuates, deteriorates or persists

(Answers overleaf)

9.35 A **False** the skull vault develops in membrane, the skull base in cartilage
B **False** surprisingly the base, apart from the buttress of the petrous temporal, is more fragile than the vault of the skull
C **True**
D **True**

9.36 A **True** especially if the fracture is depressed
B **True**
C **False**
D **False** there are many causes of diplopia including neurological lesions, direct trauma to the eye, entrapment of extraocular muscles or displacement of the eyeball.

9.37 A **True**
B **False** Horner's syndrome is a constricted pupil with ptosis and decreased sweating
C **True**
D **False** exophthalmos characterises the superior orbital fissure syndrome

9.38 A **False** a skull fracture is usually present if there is an intracranial haematoma
B **True**
C **False** intracranial haematomas may be quite large before consciousness is impaired
D **True**

9.39 Which of the following statements is/are true?
A Following a head injury, an orbital haematoma indicates a fracture of the anterior cranial fossa
B Anterior basal fractures may involve the optic foramen causing optic atrophy and blindness
C Aural bleeding indicates a fracture of the base of the skull or direct injury to the ear
D Bruising over the mastoid region extending downwards over the sterno-mastoid suggests fracture of the posterior cranial fossa

9.40 Which of the following is/are true?
A Following a head injury there may be intracranial (extradural) haemorrhage from the middle meningeal artery
B Loss of consciousness after a head injury is not uncommon but if the patient then spontaneously regains consciousness he is still not out of danger
C In the case of space-occupying intracranial lesions the patient's blood pressure may rise but the pulse rate falls
D Clear fluid discharging from the nose after a head injury may indicate that there is a fracture of the cribriform plate of the ethmoid

9.41 Damage to the oculomotor nerve causes
A ptosis on the affected side
B dilatation of the pupil on the affected side
C the ipsilateral eye to look downwards and laterally
D inability to cry on the affected side
E paralysis of lateral gaze on the affected side

9.42 Concerning injured patients, which of the following are true?
A Aerocele may produce minimal signs and symptoms
B In adults a postoperative urine output of 10 litres a day indicates that a good fluid balance has been achieved in a patient who has had a fractured middle third
C In gun-shot wounds, the speed of a bullet renders gun-shot injuries sterile
D The exit wound in a gun-shot wound is larger than the entry wound

9.43 Cerebrospinal rhinorrhoea
A is an indication for giving antimicrobials
B can be left for 7 days after stabilisation of the maxilla before seeking neurosurgical intervention
C diminishes the likelihood of meningitis after head injury
D means that the dura is damaged, whereas absence of CSF rhinorrhoea or otorrhoea means that the dura is intact afte facial fractures

(Answers overlea

9.39 A **False** an orbital haematoma may also be caused be direct contusion of the soft tissue or by blood tracking forwards deep to the scalp aponeurosis
B **True**
C **True**
D **True**

9.40 A **True**
B **True** after a lucid period he may go into coma because
C **True** of an extradural haemorrhage
D **True** clear fluid discharging from the nose after a head injury may be cerebrospinal fluid (suggesting a fracture) but can also be lacrimal fluid

9.41 A **True**
B **True**
C **True**
D **False** the lacrimal gland receives secretomotor fibres from other sources
E **False** lateral gaze is dependent on the abducens nerve

9.42 A **True**
B **False** it more probably suggests post traumatic reduction in anti-diuretic hormone production
C **False** the bullet may be sterile, but it carries bacteria from the skin into the wound. There is also much tissue damage, making infection common
D **True** usually

9.43 A **True**
B **True**
C **False** the leak predisposes to ascending infection
D **False** CSF may leak into ethmoid and sphenoid air cells in high Le Fort fractures and thus not be visible initially. Cerebral oedema may also delay CSF leakage

9.44 Cerebrospinal rhinorrhoea characteristically
A tastes sweet and has a high sugar content
B suggests a fracture of the skull base (petrous temporal bone)
C is seen immediately after the injury
D reduces after a Valsalva manoeuvre

9.45 A patient presents 24 hours after receiving a blow to the face with bruising and swelling around the right orbit. During your initial examination
A an exophthalmometer is likely to assist the diagnosis of 'blow-out' fracture
B diplopia on looking up shows that the inferior rectus muscle is trapped
C an occipito-mental X-ray shows the right antrum to be opaque and therefore a tomogram of the orbit must be taken
D a fixed, dilated pupil of the right eye suggests that he has probably also received a head injury on the right side

9.46 Ptosis may be caused by a lesion of the
A oculomotor nerve
B cervical sympathetic
C trochlear nerve
D trigeminal nerve
E superior oblique muscle

9.47 Which of the following statements is/are true?
A Following a head injury, prophylactic antimicrobials are indicated if there is a CSF leak, a compound fracture or a retained foreign body
B CSF leaks are more common after a middle third facial fracture than a lower third
C Tetanus prophylaxis is needed particularly where there is a contaminated or crushed wound and where there is delay before attending for care
D Tetanus toxoid immunisation gives immunity for up to 2 years

9.48 Which of the following statements is/are true?
A Severe loss of blood may, if fluid is not replaced, lead to acute renal tubular necrosis
B Persistent oliguria, with rising urinary sodium excretion, characterises acute renal tubular necrosis
C Chronic renal failure is often complication by polycythaemia
D Chronic renal failure may cause osteolytic lesions in the jaws:

(Answers overleaf)

9.44 A **False** CSF has a salty taste
B **False** CSF in the nose characteristically comes through the cribriform plate
C **False** there may be occult leaks into a sinus, or the nasopharynx, or cerebral oedema may temporarily stop the flow
D **False** this increases intracranial pressure leading to increased CSF flow

9.45 A **False** oedema may mask loss of periorbital fat
B **False** oedema may produce this effect
C **False** blood in the antrum will produce opacity
D **False** traumatic mydriasis may produce this

9.46 A **True**
B **True**
C **False**
D **False**
E **False**

9.47 A **True**
B **True**
C **True**
D **False** tetanus toxoid immunisation if given as the usual 3-dose course gives immunity for at least 5 and probably 10 years

9.48 A **True**
B **True**
C **False** chronic renal failure is complicated by anaemia
D **True** secondary hyperparathyroidism

9.49 Glycosuria may be found
A in diabetes mellitus
B in pregnancy
C in patients with head injuries
D only if there are extremely high levels of blood glucose

9.50 Which of the following statements is/are true?
A Radiographs of a cervical spine following a road traffic injury with possible whiplash injury should first include radiographs with the cervical spine in extension and flexion
B Shock in a patient with a maxillofacial injury usually signifies haemorrhage elsewhere
C Road traffic accidents are frequently associated with excessive alcohol intake
D Even mild head injuries carry the risk of intracranial haemorrhage

9.51 Postoperative chest complications after general anaesthesia
A are more likely after oral than abdominal surgery
B may include a lung abscess if there has been inhalation of foreign material from the mouth
C often include atelectasis
D are less likely if the patient has avoided food and drink before operation
E are not significantly affected by smoking

9.52 Deep vein thrombosis
A is predisposed to by changes in the blood vessel wall, a decreased speed of circulation of the blood, and increased blood coagulability
B of the leg is common postoperatively where the patient is elderly or the legs have been still for some time
C may cause calf pain and swelling but is not associated with life threatening complications
D may follow the intravenous use of diazepam

9.53 Emboli may
A follow deep vein thrombosis postoperatively
B form after fractures
C form after operations on the neck
D be lethal

(Answers overlea

9.49 A **True**
B **True** it may in pregnancy be a manifestation of latent diabetes
C **True** glycosuria in patients with head injuries may be transient in normal patients, but diabetics because of the risk of coma are also liable to have head injuries
D **False**

9.50 A **False** plain AP and lateral radiographs with open mouth views of the odontoid process should first be taken to ensure as far as possible that there is no likelihood of producing cord damage before flexing or extending the neck
B **True**
C **True**
D **True**

9.51 A **False** the reverse is true
B **True**
C **True**
D **True**
E **False** smoking increases the chances of postoperative chest infection

9.52 A **True**
B **True**
C **False** deep vein thrombosis predisposes to pulmonary embolism
D **False** superficial vein thrombosis may affect the vein used for intravenous injection of diazepam in propylene glycol. Diazemuls appears to overcome this problem

9.53 A **True**
B **True**
C **True** air emboli may form if there is damage to the jugular vein
D **True**

9.54 A patient who has had bleeding from a tooth socket for several hours presents at your surgery. On initial examination he is sweaty and nauseated.
A The fact that he is sweaty suggests that he is shocked from loss of blood
B Nausea is usually caused by a combination of fear and any analgesics the patient may have been taking
C Almost certainly the bleeding comes from the bone as opposed to mucosa and the socket should be plugged
D Because the patient may be shocked, a local anaesthetic without adrenaline should be used

9.55 In haemophiliac patients
A having oral surgery; Factor IX replacement is needed in haemophilia A; factor VIII replacement is needed in haemophilia B
B preventive dental care is extremely important in order to avoid unnecessary surgery
C there may be a risk of viral hepatitis carriage
D a factor VIII level in the plasma of 50–70% is needed for dental extractions if the patient has haemophilia A
E tranexamic acid can be used as a substitute for anti-haemophilic factor

9.56 Sulphadiazine
A is the ideal drug for prevention of meningitis after head injuries
B is available as tablets for oral administration
C can cause rashes
D is useful because bacterial resistance rarely develops
E is less prone to cause crystalluria than other sulphonamides

9.57 Which of the following statements is/are true?
A Fat embolism may complicate fractures
B Avascular necrosis may complicate comminuted fractures but is rare in the head and neck region
C Delayed union is uncommon in facial fractures but may be caused by inadequate immobilisation of the fracture, infection, or general debility
D Non-union of a fracture may result from gross bone loss, interposition of non-osseous material, or inadequate immobilisation

9.58 Raised intracranial pressure after a maxillofacial injury
A is a normal finding
B is typically associated with a rising blood pressure
C is typically associated with tachycardia
D is typically associated with a constricted, unreactive pupil
E usually subsides spontaneously

(Answers overleaf)

9.54 A **False** he is probably anxious and has swallowed blood
B **False** swallowing blood often causes nausea
C **False** in the majority of cases a bleeding tooth socket is caused by a mucosal tear. Sutures are the main form of treatment
D **False** the patient is extremely unlikely to be shocked and the vasoconstrictor will help to reduce bleeding

9.55 A **False** factor VIII is needed in haemophilia A; factor IX is needed in haemophilia B
B **True**
C **True**
D **True**
E **False** tranexamic acid however reduces the amounts of AHF that needs to be given

9.56 A **False** rifampicin is probably better because many of the bacteria causing traumatic meningitis are sulphonamide resistant
B **False**
C **True**
D **False**
E **False**

9.57 A **True** if there are associated fractures of long bones
B **True**
C **True**
D **True**

9.58 A **False** raised intracranial pressure is a serious complication of head injuries suggesting an intracranial haemorrhage
B **True**
C **False** bradycardia
D **False** the pupil is dilated and fixed
E **False** lethal without neurosurgical intervention

9.59 Which of the following statements is/are true?
A After a haemorrhage of 2.5 pints of blood the patient may develop reflex hypertension
B If after severe haemorrhage of 2.5 pints the pulse begins to slow the prognosis is good
C Reactionary haemorrhage is that which starts about 10 days postoperatively
D Firm pressure on the wound is one of the most effective ways of arresting haemorrhage

9.60 Which of the following statements is/are true?
A Factors predisposing to thrombosis are changes in the blood vessel wall, a decreased speed of circulation, and increased coagulability
B Thrombosis of deep veins of the leg is common postoperatively when the patient is elderly or the legs have been immobile for some time.
C Deep vein thrombosis may cause calf pain and swelling but is not associated with life-threatening complications
D Deep vein thrombosis may follow the intravenous use of diazepam

9.61 Haemorrhage with loss of more than 20% of the blood volume typically causes
A pyrexia
B reduced urine output
C thrombocytopenia
D increased fibrinolysis

9.62 Which of the following statements about blood groups is/are true?
A Most persons are rhesus positive
B Rhesus positive individuals should not be transfused with rhesus negative blood which is otherwise matched
C A blood donor of group A can give blood to patients who are group A, AB or O.
D If a donor is blood group A it is safe to take his blood and give it immediately to a patient of blood group A

9.63 Which of the following statements is/are true?
A Natural antibodies to ABO blood group antigens are IgA class
B Patients of blood group O have serum antibodies to groups A and B
C Patients of blood group A have serum antibodies against group B
D Patients of blood group AB can donate their blood safely to patients of any ABO group

(Answers overleaf)

9.59 A **False** hypotension is characteristic of severe haemorrhage
B **False** tachycardia is the normal response to severe haemorrhage. A subsequent bradycardia may be a poor prognostic sign
C **False** reactionary haemorrhage starts within 24 hours of operation, when the blood pressure returns to normal. Haemorrhage at about 10 days postoperatively is usually due to infection and is termed secondary haemorrhage
D **True**

9.60 A **True**
B **True**
C **False** deep vein thrombosis predisposes to pulmonary embolism
D **False** *superficial* vein thrombosis may follow intravenous injection of diazepam

9.61 A **False** a fall in body temperature is more common
B **True**
C **False** the platelet count rises
D **True**

9.62 A **True** about 85% are rhesus positive
B **False** this is safe *but* rhesus negative persons should not be transfused with rhesus positive blood
C **False** patients of blood group O should not receive blood of group A
D **False** although a transfusion reaction is unlikely there are many blood groups other than the ABO system. The bloods must therefore not only be blood grouped but also *cross-matched* in the laboratory to ensure that no adverse reaction is likely

9.63 A **False** natural antibodies are IgM
B **True**
C **True**
D **False** group O blood can (*in theory* at least) be given safely to patients of any ABO group

9.64 Transfusion reactions
A produce features such as fever, chest pain and polyuria
B may produce bilirubinaemia and haemoglobinuria
C can be avoided if blood is cross-matched before transfusio
D will not develop if blood for transfusion is of exactly the same ABO and rhesus groups as the recipient

9.65 Blood for transfusions
A is anticoagulated with citrate
B is stored at 0°C
C of Group O is the so-called universal donor group
D does not need cross-matching if both donor and recipient are of the same ABO, Rhesus and Kell group

9.66 Which of the following statements is/are true?
A A contusion is a circumscribed collection of blood
B Abdominal viscera may be ruptured even in the absence o an external wound
C An open fracture is one that communicates with the surfa of the body through a wound in the overlying skin or mucosa
D A comminuted fracture is one that is associated with injur to joints, nerves or large blood vessels

9.67 Which of the following are true about tetanus?
A Tetanus now has a negligible mortality
B Immunisation against *Clostridium tetani* usually is carried out in infancy
C Spores of *Clostridium tetani* are found particularly in ground contaminated with horse manure
D Anti-tetanus serum should be administered to all patients with contaminated wounds after a road traffic accident
E Trismus is rare in the early stages

9.68 Which of the following statements is/are true?
A Patients unconscious after a head injury are liable to develop urinary retention, bedsores and pulmonary infections
B A bedsore is a form of gangrene due to local pressure
C Urinary retention may be the cause of restlessness in a semi-conscious patient
D Morphine is probably the best drug to give to a patient w complains of headache after a middle third facial fracture

(Answers overle

9.64 A **False** oliguria rather than polyuria is typical of a transfusion reaction
B **True**
C **True** but other complications are possible
D **False** it is not as simple as this. Many blood groups exist and therefore blood for donation is not only grouped for these and other groups but also directly cross-matched in the laboratory with the recipient's blood to pick up any adverse reactions

9.65 A **True**
B **False** 4°C is the correct storage temperature (ice does not form)
C **True** but is must be cross matched before use
D **False** cross-matching is *always* essential (there are over 300 blood groups!)

9.66 A **False** this is the definition of a haematoma. A contusion is extravasation of blood into tissues
B **True**
C **True**
D **False** these are *complicated* fractures. A comminuted fracture is one where the bone is fractured into more than two fragments

9.67 A **False** the mortality is still about 30%
B **True**
C **True**
D **False** but give anti-tetanus globulin if a booster of toxoid has not been given within 5 years
E **False** lockjaw is one of the most common early signs

9.68 A **True**
B **True**
C **True**
D **False** morphine is contraindicated after a head injury since it causes pupil constriction (and thereby may interfere with neurological observations) and depress respiration

9.69 Following pituitary damage in a head injury, a patient with consequent diabetes insipidus will
A suffer from thirst
B suffer from oliguria
C excrete urine of low specific gravity
D produce excess ADH
E often recover spontaneously

9.70 Anosmia
A is more often caused by local nasal disease than neurological causes
B may follow a head injury
C may be caused by tearing of the fibres of the olfactory nerve as they penetrate the cribriform plate
D when suspected should be tested with smelling salts
E may be described by the sufferer as a loss of taste

9.71 Zygomatic fractures
A are infrequently comminuted
B are often followed by unilateral epistaxis
C produce subconjunctival haemorrhage with no posterior limit — a pathognomonic feature
D may produce enophthalmos which can take some days to become clinically obvious
E produce gross oedema and make examination of the pupil after a fracture difficult, therefore ocular examination should be delayed until the oedema has partially resolved

9.72 When treating a fracture of the zygoma
A if the fronto-zygomatic suture is also displaced and needs wiring the surgical treatment must be through at least two skin and/or mucosal incisions
B during the operation you discover that there is no Whitehead's varnish for antral packing. Fortunately a pin can always be used as an alternative method to hold the malar in position
C postoperatively sensory nerves may be permanently damaged with resultant anaesthesia
D wiring of a malar fracture is always done through a skin incision

9.73 Deep vein thrombosis
A is a postoperative complication of little serious importance
B may lead to limb ischaemia and threaten the vitality of the limb
C may not cause any clinical manifestations
D may cause pulmonary hypertension
E is a frequent sequel to oral surgery

(Answers overleaf)

9.69 A **True**
B **False** polyuria characterises diabetes insipidus
C **True**
D **False** ADH production is decreased to cause diabetes insipidus
E **True**

9.70 A **True**
B **True**
C **True**
D **False** smelling salts may irritate mucosa supplied by the trigeminal nerve and do not truly test the sense of smell
E **True**

9.71 A **True**
B **True**
C **False** common but not pathognomonic
D **True**
E **False** examination may be difficult but cannot be omitted

9.72 A **False**
B **False** not in the case of a comminuted malar
C **True**
D **False** intra-oral incision or transconjunctival incision

9.73 A **False**
B **False** *arterial* thromboses may cause limb ischaemia
C **True**
D **True** recurrent pulmonary emboli may cause pulmonary hypertension
E **False** most patients are in a younger lower risk group and bed stay is rarely prolonged

9.74 Zygomatic fractures
A show initial diplopia in 10% of cases
B cannot be readily elevated from an intra-oral approach
C if comminuted and when there is an associated Le Fort I maxillary fracture, may be treated with antral packs
D with orbital floor damage may be approached transconjunctivally

9.75 Mandibular fractures are typically associated with
A lingual or sublingual haematoma
B anaesthesia over the ipsilateral mental region
C occlusal derangement
D cerebrospinal otorrhoea
E trismus

9.76 Concerning fixation of mandibular fractures
A pin fixation is useful if there is gross bone comminution in a gun-shot wound
B bone plating may be useful where there is a pathologica fracture after radiotherapy to a mandibular lesion
C lower border wiring is often useful for horizontally and vertically favourable fractures with displacement
D intermaxillary fixation may be contraindicated in alcohol or epileptics
E 3 weeks is the usual minimal period of immobilisation c simple fracture

9.77 Acute mandibular dislocation typically
A results from the condylar head being displaced backwa out of the glenoid fossa
B manifests with pain, a gagged occlusion, anterior open and inability to close the mouth
C causes the jaw to deviate to the affected side
D can be reduced manually under anaesthesia

9.78 When a patient has surgical treatment for dislocation of t mandibular condyle
A the condyle may be surgically replaced in the glenoid f via a Gillies temporal approach
B an intra-oral incision exposing the coronoid process m a valid approach for surgically preventing further dislo
C drilling a hole in the angle of the mandible may be he
D diazepam as premedication may assist the surgical procedure

(Answers ov

9.74 A **True**
B **False** although not common practice in the UK it is nevertheless an effective method of elevating a simple fracture
C **False** antral packs have many postoperative complications but must be used on occasion. In the presence of a Le Fort I the maxillary fracture may be displaced by the pack, and must be thoroughly stabilised before use
D **True**

9.75 A **True**
B **True**
C **True**
D **False** CSF otorrhoea implies a fracture of the base of skull
E **True**

9.76 A **True**
B **False** plating is contraindicated if blood supply is poor
C **True**
D **True**
E **True**

9.77 A **False** the condylar head displaces anteriorly over the articular emminence
B **True**
C **False** the jaw deviates to the unaffected side
D **True**

9.78 A **True** but rarely used method
B **True** one method which has been used is a porcine fascia lata sling which is passed round the zygomatic arch and through a hole in the coronoid process
C **True** a method has been described of placing a hook in the hole and using it to reduce the dislocation
D **False** though it may be used for premedication it does not of course directly help the surgical procedure

9.79 With the surgical approach to the temporomandibular joint the following anatomical points are true
A Where the temporalis fascia splits into two layers the temporalis branch of the facial nerve lies in between
B The auriculo-temporal nerve may be damaged when cutting sensory nerves to the joint
C A 'hockey stick' type of preauricular incision is more likely to damage the facial nerve than the 'question mark' type of preauricular incision
D A preauricular incision can only damage the facial nerve if it is extended more than one centimeter below the attachment of the ear

9.80 The 'blind' or 'closed' condylotomy (though some say that is obsolete)
A is only used for patients with severe symptoms from the temporomandibular joint
B has a 10% risk of haemorrhage from the maxillary artery
C apart from bleeding, causes virtually no morbidity
D a Gigli saw blade can be used many times for this operation

9.81 The facial nerve or its branches
A passes through the internal auditory meatus
B if damaged in its distal part gives rise to a lower motor neurone palsy
C may be damaged during excision of the submandibular gland
D carries some parasympathetic fibres

9.82 Which of the following statements is/are true?
A The scalp consists of five layers, the skin, connective tissue, aponeurosis, loose connective tissue and periosteum
B The scalp veins connect with intracranial venous sinuses via emissary veins and can transmit infection to the brain from a superficial wound
C Blood can track from a haemorrhage beneath the aponeurotic layer of the scalp forwards into the orbits
D Collections of blood from a subperiosteal haemorrhage of the scalp, tend to outline the affected bone because periosteum is firmly attached at the suture lines

9.83 The inferior dental nerve
A is a branch of the mandibular division of the trigeminal
B arises in the infratemporal fossa deep to the medial pterygoid muscle
C may give rise to branches to the molars before it enters the mandibular canal
D contains sensory fibres from the floor of the mouth

(Answers overleaf)

9.79 A **False**
B **True**
C **False** the nerve is vulnerable over the zygomatic arch
D **False** it should not extend below the attachment of the ear

9.80 A **False** it is used as a form of vertical subsigmoid osteotomy
B **False** this obviously depends on the operator but is very unusual with a skilled operator
C **False** facial nerve injury is a recognised complication
D **False** the saw blade is usually cut so that the loop at one end of the blade is not dragged through the soft tissues again

9.81 A **True**
B **True**
C **True**
D **True**

9.82 A **True**
B **True**
C **True**
D **True**

9.83 A **True**
B **False** the inferior dental nerve arises lateral to the medial and medial to the lateral pterygoids
C **True**
D **False** the floor of the mouth is supplied by branches of the lingual nerve

9.84 Which of the following statements is/are true?
A The bregma is at the junction of sagittal and coronal sutures of the skull
B The inion is at the external occipital protuberance
C The lambda is at the junction of the sagittal and lambdoid sutures
D The jugal point is the prominence of the parietal bones

9.85 Sterilisation: which of the following is/are true?
A Bacteria are more susceptible to moist than dry heat
B Boiling for 20 minutes is inadequate to destroy spores
C 2% glutaraldehyde is ineffective in disinfection against hepatitis viruses
D Pasteurisation sterilises milk
E Hypochlorite has activity against hepatitis viruses

9.86 The recommended method(s) of sterilisation of metal dental instruments is/are by
A boiling water for 30 minutes
B steam at 100°C for 5 minutes
C steam at 134°C for 3 minutes
D dry air at 160°C for 30 minutes
E chlorhexidine for 24 hours

9.87 The Dautrey procedure
A can be used to treat the elderly patient with persistent condylar dislocation
B does not require exposure of the condylar head
C is a simple operation that has been used since the 19th century
D has a low failure rate

9.88 Orthognathic surgery
A advances, pushes back or changes the vertical positions of the mandible and/or maxilla
B using the sagittal split mandibular osteotomy is restricted to the treatment of mandibular retrognathia
C may significantly improve the psychological well-being of the patient
D employing autologous bone grafts prolongs the hospitalisation of the patient

(Answers overleaf)

9.84 A **True**
B **True**
C **True**
D **False** the jugal point is at the junction between zygomatic bone and zygomatic arch of the temporal bone

9.85 A **True**
B **True**
C **False** 2% glutaraldehyde is effective against hepatitis virus
D **False** most vegetative organisms only are killed by pasteurisation
E **True**

9.86 A **False**
B **False**
C **True**
D **True**
E **False**

9.87 A **False** probably nobody over 25 should have this operation
B **True**
C **False** Dautrey is still alive and operating
D **True** in patients under 25

9.88 A **True**
B **False**
C **True** but not invariably. The patient may blame the facial appearance for misfortunes related to, for example, an underlying personality defect
D **True**

9.89 When measuring the lateral cephalogram
A the angle SNPg gives a good indication of the vertical height of the chin
B the mandibular plane is defined as a line joining gonion to pogonion
C the ratio of the distance N-ANS and ANS-Me is ideally about 45: 55
D the angle of the lower incisor to the mandibular plane is ideally 90°

9.90 The sagittal split mandibular operation
A is a good operation for closing an anterior open bite
B has a very low incidence of inferior dental nerve anaesthesia or paraesthesia with a skilled operator
C has a lower morbidity when used for pushing back a mandible than an intra-oral vertical subsigmoid osteotomy
D rarely leads to a non-union of the osteotomy site

9.91 Osteotomies
A of the Le Fort III type, like the Le Fort III fracture, are not associated with great blood loss and therefore the patient rarely needs more than 2 pints of blood transfused
B of the Le Fort III type, if done with the use of a bicoronal flap are not followed by nerve paraesthesias postoperatively
C of the Le Fort III type are most commonly indicated in syndromes associated with the early closure of cranial sutures
D of the Le Fort II type produce maxillary necrosis in the cleft palate patient
E of the Le Fort II type involve detaching the nose superiorly

9.92 Which of the following statements is/are true?
A Class II skeletal malocclusions can in some patients be corrected by a maxillary osteotomy only
B Le Fort I osteotomies will alter the nasal profile
C Most patients after Le Fort I osteotomies lose sensation to the teeth for several months
D The principal blood supply to the mandibular ramus is via the muscles inserted into it, particularly in the elderly
E Sagittal split ramus osteotomies are typically associated with neurological deficit in the distribution of the inferior dental nerve

(Answers overleaf)

9.89 A **False** SNPg measures the relative prominence of the chin
B **False** gonion to menton
C **True**
D **True**

9.90 A **False** relapse is common
B **False**
C **False**
D **True**

9.91 A **False** Le Fort III osteotomy can easily lose 6 pints of blood
B **False** the supra-orbital nerve has to be removed from its foramen often leading to paraesthesia
C **True**
D **False**
E **True**

9.92 A **True**
B **True**
C **False** most lose sensation permanently but some recover
D **True**
E **True**

9.93 When a body osteotomy is performed
A bony union, postoperatively, is more slow than in a sagittal split
B the inferior dental nerve always has to be carefully dissected out and preserved intact in order to prevent lip anaesthesia
C it is usually done from an intra-oral approach
D is an ideal operation on an edentulous mandible because teeth do not have to be removed

9.94 In patients with facial disproportion producing malocclusion
A an osteotomy alone in the mandibular ramus can be used to close an anterior open bite
B a sagittal split osteotomy commonly produces inferior dental nerve paraesthesia
C an intra-oral vertical sub-sigmoid osteotomy is appropriate for treating mandibular retrognathia
D following a 'down-fracture' of the maxilla at a Le Fort I level the blood supply to the alveolus relies only on the integrity of the greater palatine artery

9.95 When an extra-oral vertical subsigmoid osteotomy is performed
A surgical access is easier than from an intra-oral operation
B postoperative morbidity is reduced
C the position of the lingula can be found by palpating a small bony protuberance on the lateral surface on the ramus
D the distance the mandible can be pushed back is limited by bony obstruction to the coronoid process

9.96 When a down-fracture Le Fort I osteotomy is performed
A necrosis is prevented by a blood supply to the maxilla from the palatine arteries
B a patient with a cleft palate is more likely to develop necrosis
C the operation is easier on a cleft palate patient because the lesser segment does not have to be detached from the nose
D a tear in the nasal mucosa makes postoperative infection more likely

9.97 When a down-fracture Le Fort I osteotomy is performed
A the maxilla can be moved forwards but not backwards
B an intact maxilla can be divided into four or more segments safely
C unlike a sagittal split there is never any anaesthesia or paraesthesia
D a canine tooth buried in the palate can be seen from above and easily removed at the time of operation

(Answers overleaf)

9.93 A **True**
B **False**
C **True**
D **False** a) rigid fixation is mandatory and is difficult with a Gunning's splint. b) an edentulous mandible is usually thinner and takes longer to heal

9.94 A **False** it is unstable
B **True**
C **False**
D **False** the soft palate and buccal mucosa usually provides adequate blood supply

9.95 A **True**
B **False** the mandibular branch of facial nerve may be damaged
C **True**
D **True**

9.96 A **False** the blood supply is probably from the remaining buccal mucosa. The palatine arteries can be safely clipped
B **True** in the lesser segment, presumably because the blood supply through the intact buccal mucosa is impaired by scar tissue
C **False** scarring makes the operation much more difficult
D **False**

9.97 A **False** the maxilla can be moved backwards up to 2 or 3 mm
B **True**
C **False** infraorbital nerve paraesthesia is quite common
D **False** the bony cuts are into the nose and a palatal canine is not seen during the operation

9.98 When a genioplasty is performed
A a forward sliding genioplasty can only be successful if the powerful genial muscles are detached
B the maximum forward movement of a patient's chin is decided by the thickness of the bone because it has to be wired back to the mandible
C a silastic implant may be better than a genioplasty because, unlike bone, it does not resorb and cannot therefore relapse
D it is impossible to greatly reduce the vertical height of a patient's chin by removing a wedge of bone because of the risk of damage to the apices of lower incisor teeth

9.99 Sutures
A produce less aesthetic results for repairing superficial skin wounds than does tape
B of black silk have the advantage for oral use of easy visibility
C of chromic catgut are among the best for repairing palatal wounds
D of monofilament nylon or polypropylene are excellent for subcuticular suturing of facial wounds
E of some resorbable materials are removed by enzymic action

9.100 A 15 year old otherwise healthy female patient presents at 1 a.m. with a large, firm, brawny submandibular swelling on the right side. The patient has severe trismus, pyrexia and radiographs show a grossly carious $\overline{6}$|. The patient has some dysphagia but the tongue is not elevated; which of the following is/are indicated?

A Start antibiotics intramuscularly and drain the abscess under general anaesthetic following admission to a ward and medical clerking
B Aspirate the swelling with a large bore needle and send for culture and sensitivity then start antibiotics when results are available
C Intubate for general anaesthesia
D Give corticosteroids

(Answers overleaf)

9.98 A **False** this may reduce blood supply and it acts as a free bone graft
B **False** remember the double sliding genioplasty
C **False** silastic tends to cause a depression in the bone
D **False**

9.99 A **True**
B **True**
C **False** they are rigid and unpleasant
D **True**
E **True**

9.100 A **True**
B **False** this may produce unacceptable delay before drainage is carried out
C **True**
D **False** in the presence of infection, steroids are contraindicated

9.101 Gas gangrene typically
A results from infection of wounds with Gram-positive sporing anaerobic bacilli of which *Clostridium perfringens* (welchii) is important
B is particularly likely in war wounds and where there has been laceration or crushing of muscle, contamination of wounds or impaired circulation to a part
C is lethal because of clostridial neurotoxins
D is caused by penicillin-resistant clostridia
E should be treated with metronidazole

9.102 Cavernous sinus thrombosis
A may follow infection of the lips, nose or face and spreads via the anterior facial or ophthalmic veins to the cavernous sinus
B may follow spread of infection from the pterygoid venous plexus
C may produce a loud bruit heard over the eye
D and carotico-cavernous arterio-venous fistula are characterised by exophthalmos, orbital and conjunctival oedema and cranial nerve palsies
E typically remains unilateral

9.103 Which of the following statements is/are true?
A The most common single site for oral carcinoma (excluding the lip) is the lateral border of tongue
B The rationale for using fractionated irradiation in the treatment of oral carcinoma is that there is a higher probability that at each treatment, cells will be in a more sensitive phase of the cell cycle
C Less than 10% of patients presenting with oral carcinoma have occult metastases to cervical lymph nodes
D The average delay between onset of symptoms and institution of treatment of oral carcinoma is about 6 months
E Surgical resection and healing are better in non-irradiated tissues than irradiated tissues

9.104 Oral squamous cell carcinoma
A has an annual incidence of about 15 000 cases per annum in England and Wales
B is closely associated with oral sepsis as an aetiological factor
C can be prevented by cryosurgery of dysplastic lesions
D Is usually secondary to heavy cigarette smoking
E has an annual death rate of about 1800 per annum in England and Wales

(Answers overleaf)

9.101 A **True**
B **True**
C **False** death from gas gangrene is caused by septicaemia
D **False** penicillin is indicated for the treatment of gas gangrene in association with surgery
E **False** penicillin is usually the antibiotic of choice

9.102 A **True**
B **True**
C **False** a bruit characterises a carotico-cavernous arterio-venous fistula
D **True**
E **False** spread to the other side by the circular sinus is rapid

9.103 A **True**
B **True**
C **False** the prevalence is in excess of 30%
D **True** at least in the UK according to recent studies
E **True**

9.104 A **False** the figure is about 1500 cases per annum in England and Wales
B **False** there is little or no evidence for this supposed association
C **False** no evidence
D **False** no evidence
E **False** it is about 700

9.105 Which of the following statements is/are true?
A The lymph nodes of the deep cervical chain extend from the base of skull to root of neck and mostly lie beneath the sternomastoid muscle
B Lymph drainage from the lower lip is initially to the submental and submandibular lymph nodes
C Carcinomas metastasising to the deep cervical lymph nodes may involve the lip, oral mucosa or pharyngeal mucosa including the pyriform fossa
D Enlargement of a cervical lymph node in a patient with lingual carcinoma does not necessarily indicate metastases

9.106 Which of the following statements is/are true?
A Carcinoma of the maxillary antrum may present with double vision
B Radio-opacity of the maxillary antrum is usually due to an antral tumour
C maxillary antral carcinoma may invade the lateral wall of the nose but characteristically spares the naso-lacrimal duct
D Pain and a purulent or blood-stained nasal discharge, and loosening of teeth, may be features of antral carcinoma

9.107 Which of the following statements are true?
A 10% of delto-pectoral flaps develop necrosis at the tip
B at least a 2 cm marginal clearance is desirable in the surgical excision of intra-oral squamous cell carcinomas
C there is good evidence that neck dissection in the absence of a palpable lymph node improves the prognosis
D a good orthopantomogram will show evidence of the tumour invasion before a bone scan, because of the better resolution of the OPG

9.108 Radiotherapy of the head and neck typically produces
A xerostomia
B oral infections
C mucositis, if the field of radiation involves the oral mucosa
D heightened taste sensitivity
E an increased risk of osteomyelitis of the mandible

9.109 Salivary gland adenomas
A can undergo malignant change
B have a higher relative frequency intra-orally than in the parotids
C usually produce firm painless swellings
D are common in the sublingual gland
E are readily distinguishable clinically from malignant tumours

(Answers overleaf)

9.105 A **True**
B **True**
C **True**
D **True**

9.106 A **True** encroachment on the orbit may cause diplopia or proptosis
B **False** there are numerous causes of antral radio-opacities
C **False** the nasolacrimal duct may be occluded leading to epiphora
D **True**

9.107 A **True**
B **True**
C **False** absence of lymphatic spread is a good prognostic sign — but not prophylactic neck dissection *per se*
D **False** although a bone scan has a poor resolution it demonstrates early bone involvement

9.108 A **True**
B **True**
C **True**
D **False** taste loss is common after radiation to the head and neck
E **True**

9.109 A **True**
B **False**
C **True**
D **False**
E **False**

9.110 Features suggestive of malignancy in a parotid swelling include
A pain
B induration
C ulceration of the skin
D facial palsy
E xerostomia

9.111 Cryosurgery
A using repeated freeze-thaw cycles is based on the principl that the volume of tissue reaching critical minimal temperature is increased in this way
B reduces postoperative pain but increases scarring
C ensures effective cell death by maintaining the temperature below critical minimal temperature for at leas 2 minutes
D produces a rapid freeze, causing the formation of intracellular ice crystals

9.112 Sialography
A is unnecessary if two plain films at right angles do not show a salivary calculus in a patient who has a salivary gland swelling after meals
B is contraindicated in acute sialadenitis
C may involve iodine-based compounds
D revealing punctate sialectasis suggests Sjögren's syndrome

9.113 A patient with an ameloblastoma of the maxilla is likely to have the following problems if the lesion remains untreated or improperly treated for a long time
A Extension of the tumour intra-cranially
B Death
C Massive enlargement of the tumour
D Loosening of all teeth near the tumour due to root resorption

9.114 When operating on a patient with fibrous dysplasia
A the diseased bone must be completely excised
B the bone can be so soft it can be pared away with a chis without the help of a mallet
C profuse bleeding can develop and the patient should be cross matched if large areas of bone are involved
D surgical treatment should be undertaken as early as possible

(Answers overlea

9.110 A **True**
B **True**
C **True**
D **True**
E **False**

9.111 A **True**
B **False** scarring is minimal and postoperative pain can be severe
C **False** the time required is unknown
D **True**

9.112 A **False** some calculi are radiolucent — but plain films should be taken first
B **True**
C **True**
D **True**

9.113 A **False** this has been recorded only rarely
B **False** highly unlikely at the least
C **True**
D **False** ameloblastomas are less likely to cause root resorption than most other neoplasms

9.114 A **False**
B **True**
C **True**
D **False**

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Preface

Attempts to learn by attending lectures or even reading, are largely passive. Most of us acquire information very slowly by these means and often only after frequent repetition.

Unfortunately, acquisition of a considerable body of knowledge is an essential prerequisite for the practice of clinical subjects. Faced with a patient's specific complaint, the clinician cannot unfortunately just nip off and look it up. Under these circumstances, qualifying examinations become a necessary evil and, whatever their limitations, there seems to be no satisfactory alternative.

Nevertheless, however much work has been done, no amount of insight will tell one how much has been learnt. Self-assessment by using multiple choice questions is one way of helping to overcome this difficulty. Though we are fully aware of the many criticisms of MCQs there is no doubt that they can be useful both in making clear any gaps in knowledge and in helping to acquire information.

These MCQs are deliberately varied in type in order not to lull the user into any unjustified complacency for having worked out the system. The most appropriate answer should be chosen; more than one answer, or even none, may be correct. The questions also range from easy to difficult so no one should feel ashamed that they fail to achieve 100%.

The questions have been grouped together according to the main specialty to which they apply but since there is always overlap it should be appreciated that any individual contributor may not be entirely responsible for a specific section.

All of these questions have been tested on groups of staff or students and we trust that any ambiguities have been eliminated. We can only apologise for any that have eluded correction and it has to be accepted that some 'facts' are controversial.

Not every subject can be included within a book of this size and price and again we can only apologise for the omissions. We hope very much however that these MCQs will contribute to the users' success in their battles with the examiners.

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Bristol, 1985

R.A.C.
C.M.S.