

KOLLEGEAPPLY

INI-CET 2026 Recall Questions

Subject-wise practice set with answer key

Kollegeapply

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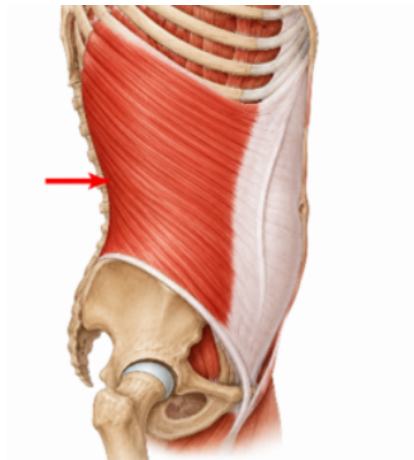
Answer Key

How to use: Attempt each question first, then check the answer key at the end. Items marked † in the key are recall-based and should be verified against a standard textbook before publication. Where the original image was not available, the question appears as text only.

Anatomy & Embryology

8 questions

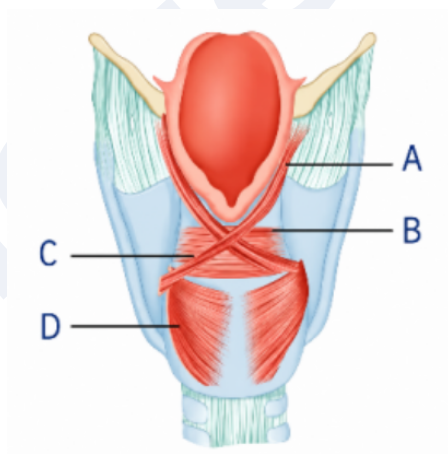
- 1 In the diagram of the abdominal wall, the muscle indicated by the arrow and the structure that arises from its aponeurosis are best paired as:



Abdominal wall musculature

- (A) External oblique – Inguinal ligament
- (B) Internal oblique – Conjoint tendon
- (C) Transversus abdominis – Conjoint tendon
- (D) Rectus abdominis – Linea alba

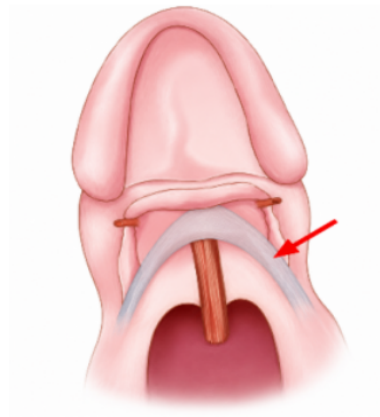
- 2 In the diagram of the intrinsic laryngeal muscles (posterior view), which labelled muscle alone is responsible for abducting (opening) the vocal cords?



Intrinsic laryngeal muscles, posterior view

- (A) Muscle A
- (B) Muscle B
- (C) Muscle C
- (D) Muscle D

- 3 Which muscle indicated by the arrow arises partly from the cartilaginous part of the auditory (Eustachian) tube and merges with the soft palate?



Soft palate musculature

- (A) Stylopharyngeus
- (B) Tensor veli palatini
- (C) Levator veli palatini
- (D) Palatopharyngeus

- 4 Pair each organ with the embryonic tissue it develops from.
Organs: A. Thyroid gland B. Adrenal medulla C. Kidney
Origins: 1. Neural crest cells 2. Intermediate mesoderm 3. Endoderm

- (A) A-3, B-1, C-2
- (B) A-1, B-3, C-2
- (C) A-2, B-1, C-3
- (D) A-1, B-2, C-3

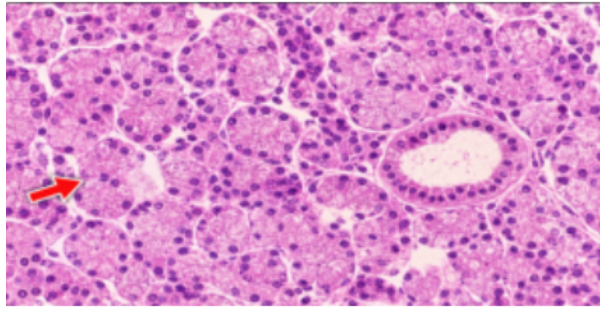
- 5 Match each gastrointestinal organ with its characteristic histological feature.
Organs: 1. Ileum 2. Transverse colon 3. Oesophagus 4. Duodenum
Features: a. Taenia coli b. Villi c. Peyer's patches d. Non-keratinised stratified squamous epithelium

- (A) 1-c, 2-a, 3-d, 4-b
- (B) 1-a, 2-c, 3-d, 4-b
- (C) 1-c, 2-b, 3-a, 4-d
- (D) 1-d, 2-a, 3-c, 4-b

- 6 A leftover of the embryonic hindgut lying in the retrorectal (presacral) space most commonly gives rise to which lesion?

- (A) Chondroma
- (B) Tailgut cyst
- (C) Epidermoid cyst
- (D) Dermoid cyst

- 7 The histology slide shown (arrow) has acini that are predominantly serous. Which organ does it belong to?



H&E-stained; section of the gland

- (A) Sublingual salivary gland
 - (B) Pancreas
 - (C) Parotid gland
 - (D) Liver
- 8 When the maxillary process fails to fuse with the medial nasal process in the embryo, which cleft anomaly results?
- (A) Oblique cleft lip
 - (B) Midline cleft lip
 - (C) Bilateral cleft
 - (D) Cleft palate

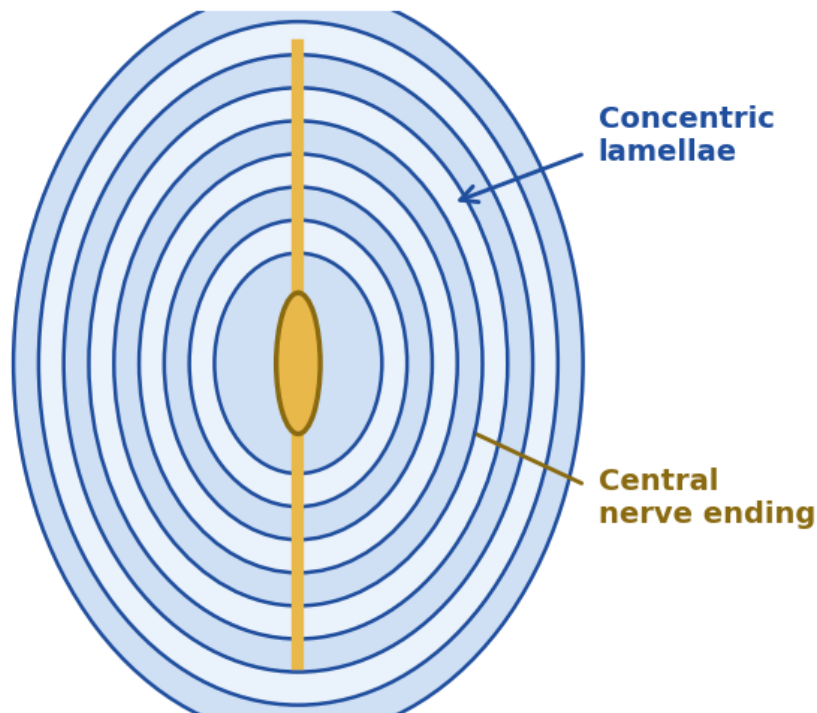
Physiology

15 questions

- 1** Which physiological change leads to an increase in renin release?
 - (A) Reduced renal perfusion pressure
 - (B) Expanded extracellular fluid volume
 - (C) Raised renal perfusion pressure
 - (D) Higher sodium delivery to the macula densa
- 2** If the glomerular capillary wall is damaged, which substance appears in the urine?
 - (A) Uric acid
 - (B) Glucose
 - (C) Ketones
 - (D) Proteins
- 3** Which brain region chiefly governs the emotional tone and prosody of speech?
 - (A) Posterior superior temporal gyrus
 - (B) Posterior inferior parietal gyrus
 - (C) Precentral gyrus
 - (D) Cingulate gyrus
- 4** What explains the biphasic (two-phase) blood flow seen in the right coronary artery?
 - (A) Rise in aortic pressure
 - (B) Greater right ventricular mass
 - (C) High pressure within the right ventricle
 - (D) Low pressure within the right ventricle
- 5** Which receptor subtype is coupled to a Gs protein?
 - (A) M1 receptor
 - (B) M2 receptor
 - (C) Alpha-adrenergic receptor
 - (D) Beta-adrenergic receptor
- 6** A graph plots glomerular filterability against effective molecular radius, with X and Y being two molecules. Which of the following statements are correct?
 1. Y is filtered more readily than X
 2. Y is filtered more readily than Z
 3. X is filtered less readily than Y
 4. X represents positively charged molecules
 - (A) 1 and 2
 - (B) 2 and 3
 - (C) 3 and 4
 - (D) 1 and 4
- 7** Which sensory receptor produces a hyperpolarising receptor potential when stimulated?
 - (A) Visual receptors (rods/cones)
 - (B) Gustatory receptors
 - (C) Olfactory receptors
 - (D) Auditory receptors

- 8** Hand-eye coordination is mainly controlled by which cerebral lobe?
- (A) Frontal
 - (B) Parietal
 - (C) Occipital
 - (D) Temporal
- 9** Which nephron segment acts as the counter-current multiplier that helps concentrate urine?
- (A) Thick ascending limb of the loop of Henle
 - (B) Thin ascending limb of the loop of Henle
 - (C) Collecting duct
 - (D) Vasa recta
- 10** What happens after a bolus dose of insulin?
- (A) Glucose enters the liver through GLUT 4
 - (B) Glucose enters muscle through GLUT 4
 - (C) Glucose enters muscle through GLUT 2
 - (D) Glucose enters the liver through GLUT 2
- 11** A patient is receiving testosterone therapy. How are LH and FSH levels expected to change?
- (A) LH up, FSH down
 - (B) LH down, FSH up
 - (C) Both LH and FSH up
 - (D) Both LH and FSH down
- 12** In oral rehydration therapy for diarrhoea, which transporter contributes most to fluid absorption?
- (A) CFTR
 - (B) NHE
 - (C) SGLT1
 - (D) $\text{Na}^+\text{-K}^+$ ATPase

- 13** Identify the skin receptor in the image.



Schematic illustration (simplified, not to scale)

- (A) Pacinian corpuscle
- (B) Merkel disc
- (C) Ruffini ending
- (D) Meissner corpuscle

- 14** Which of the following make up the intercalated disc?
1. Cadherins 2. Desmosomes 3. Gap junctions 4. Tight junctions

- (A) 1, 2 and 3
- (B) 2, 3 and 4
- (C) 1, 3 and 4
- (D) 1, 2, 3 and 4

- 15** Which statements about hormones and their metabolic effects are correct?

- A. Insulin promotes protein synthesis
- B. Thyroxine lowers the basal metabolic rate
- C. Insulin lowers blood glucose
- D. Epinephrine promotes glycogenolysis
- E. Glucagon promotes gluconeogenesis

- (A) A, B and C only
- (B) A, C and D only
- (C) A, C, D and E only
- (D) All of the above

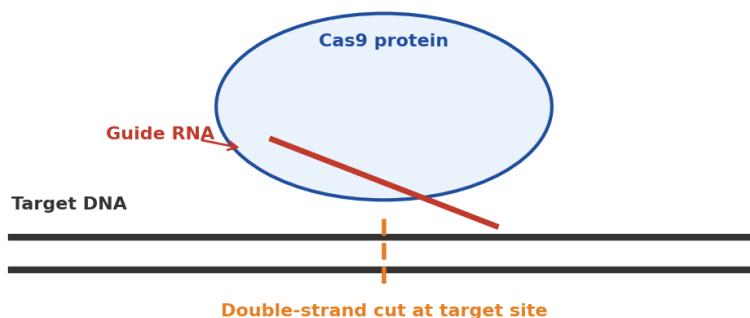
Biochemistry

12 questions

1 Serum triglycerides are raised in all of the following EXCEPT:

- (A) Abetalipoproteinemia
- (B) Type 2 diabetes mellitus
- (C) High-fructose diet
- (D) Nephrotic syndrome

2 Which molecular biology technique is shown in the image?



- (A) Microarray analysis
- (B) In situ hybridisation
- (C) CRISPR-Cas9 gene editing
- (D) DNA sequencing

3 Which coenzyme is essential for transamination reactions in amino acid metabolism?

- (A) Thiamine pyrophosphate (TPP)
- (B) Nicotinamide adenine dinucleotide (NAD)
- (C) Pyridoxal phosphate (PLP)
- (D) Flavin adenine dinucleotide (FAD)

4 Which of these gives a negative Benedict's test?

- (A) Sucrose
- (B) Glucose
- (C) Fructose
- (D) Ascorbic acid

5 Match the acid-base disturbance with its cause.

1. Metabolic acidosis 2. Metabolic alkalosis 3. Respiratory acidosis 4. Respiratory alkalosis
a. Hyperventilation b. Bronchopneumonia c. Pyloric stenosis d. Glycol poisoning

- (A) 1-c, 2-d, 3-b, 4-a
- (B) 1-c, 2-d, 3-a, 4-b
- (C) 1-a, 2-c, 3-b, 4-d
- (D) 1-d, 2-c, 3-b, 4-a

- 6** Match the nutrition term with its description.
 1. Most essential fatty acid 2. Amino acid score 3. Oil rich in essential fatty acids 4. Net protein utilisation (NPU)
 a. Safflower oil b. Protein scoring system c. Protein quality plus digestibility d. Linoleic acid
 (A) 1-d, 2-c, 3-a, 4-b
 (B) 1-b, 2-d, 3-c, 4-a
 (C) 1-d, 2-b, 3-a, 4-c
 (D) 1-a, 2-b, 3-d, 4-c
- 7** Assertion (A): Glycans show greater structural diversity than proteins.
 Reason (R): Glycans are not built from a genetic template and can form branched chains with varied linkages.
 (A) A is true, R is false
 (B) A is false, R is true
 (C) Both true, and R correctly explains A
 (D) Both true, but R does not explain A
- 8** Which enzymes are active in their dephosphorylated state?
 1. Glycogen synthase 2. Glycogen phosphorylase 3. Fructose-2,6-bisphosphatase 4. Phosphofructokinase-2 (PFK-2)
 (A) 1 and 2
 (B) 2 and 3
 (C) 3 and 4
 (D) 1 and 4
- 9** Which enzyme synthesises the RNA primer during DNA replication?
 (A) Topoisomerase
 (B) DNA polymerase II
 (C) DNA polymerase III
 (D) Primase
- 10** Which of these amino-acid classifications are correctly matched?
 A. Uncharged polar – Cysteine
 B. Non-polar – Histidine
 C. Basic – Proline
 D. Basic – Lysine
 (A) A and B
 (B) C and D
 (C) B and C
 (D) A and D
- 11** A newborn has craniofacial anomalies, marked hypotonia and seizures. Lab tests show raised very-long-chain fatty acids. What is the most likely underlying defect?
 (A) Mitochondrial inheritance
 (B) Lysosomal storage disorder
 (C) Peroxisomal biogenesis defect
 (D) Simultaneous activation of several tumour suppressor genes

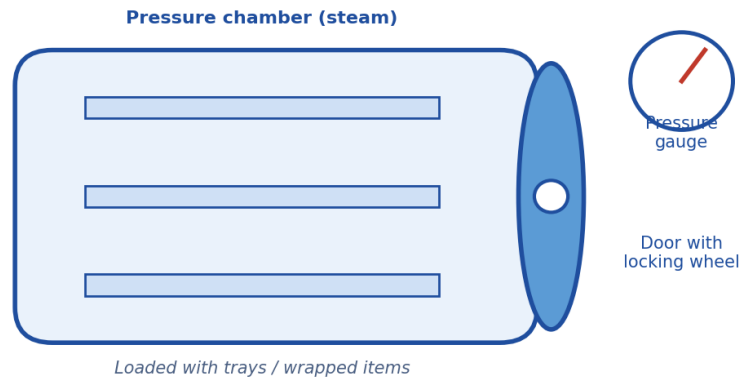
12 A lab worker accidentally inhales fumes of an oxidative-phosphorylation uncoupler. What is the most likely physiological effect?

- (A) ↓ O₂ consumption, ↑ body temperature, ↑ ATP synthesis
- (B) ↑ O₂ consumption, ↑ body temperature, ↓ ATP synthesis
- (C) ↑ O₂ consumption, ↓ body temperature, ↑ ATP synthesis
- (D) ↓ O₂ consumption, ↓ body temperature, ↓ ATP synthesis

Microbiology

11 questions

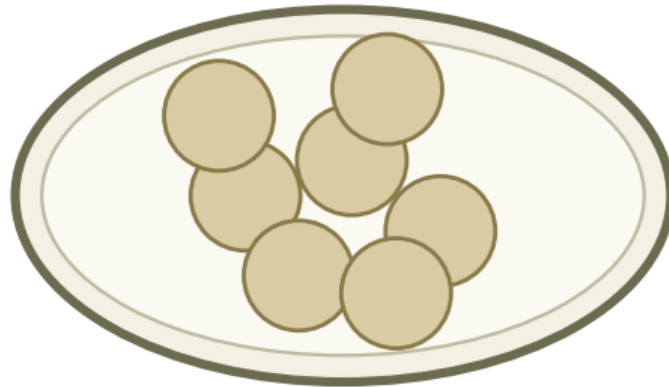
- 1 The image shows a piece of sterilisation equipment. Which statement about its sterilising action is INCORRECT?



Schematic of the equipment shown

- (A) It is a moist-heat method working above 100 °C
(B) It is monitored with the Bowie-Dick test
(C) Prions are destroyed at 121 °C for 15 minutes
(D) It is commonly used to sterilise culture media
- 2 A 32-year-old woman who has had a splenectomy develops sudden high fever, vomiting, hypotension and rapidly worsening septic shock, two weeks after a mild febrile illness. Which organism is the most likely cause?
- (A) Escherichia coli
(B) Staphylococcus aureus
(C) Streptococcus pneumoniae
(D) Pseudomonas aeruginosa
- 3 Which reagent combination is used to digest and decontaminate sputum for tuberculosis testing?
- (A) HCl with NAC
(B) H₂SO₄ with NAC
(C) HNO₃ with NALC
(D) NaOH with NALC
- 4 A patient with fever, headache and neck stiffness has CSF examined. Nigrosin (India ink) staining shows encapsulated budding yeast. What is the most likely organism?
- (A) Aspergillus fumigatus
(B) Pneumocystis jirovecii
(C) Histoplasma capsulatum
(D) Cryptococcus neoformans
- 5 A menstruating woman using tampons presents with high fever, a diffuse erythematous rash and low blood pressure. The toxin responsible acts by binding to:
- (A) MHC class I only
(B) CD4 receptor only
(C) B-cell receptor and IgG
(D) The Vβ region of the T-cell receptor and MHC class II

- 6 A young woman with fatigue and pallor suggestive of iron-deficiency anaemia has a stool microscopy image. Which statement about the parasite shown is correct?



Thin, colourless shell; 4-8-cell segmented ovum with clear space

Schematic illustration (simplified, not to scale)

- (A) Infection occurs by swallowing cysts in contaminated food or water
- (B) Infection occurs when infective larvae actively penetrate the skin
- (C) The image shows *Enterobius vermicularis* eggs
- (D) The parasite shown is *Ascaris lumbricoides*

- 7 Which statements about diphtheria toxin are true?
- A. It inhibits EF-2
 - B. It is an A-B type exotoxin
 - C. It has a special affinity for myocardial and nervous tissue
 - D. It is produced only by strains carrying a plasmid

- (A) A and C
- (B) A, B and C
- (C) All are correct
- (D) B and D

- 8 *Bacillus anthracis* virulence depends on two plasmid-encoded factors. Which pairing is correct?

- (A) pXO1 – poly-D-glutamate capsule
- (B) pXO1 – polysaccharide capsule
- (C) pXO2 – polysaccharide capsule
- (D) pXO2 – poly-D-glutamate capsule

- 9 A 38-year-old man with advanced HIV (CD4 count 60 cells/mm³) has had watery diarrhoea for 2 months with marked weight loss, intermittent fever and fatigue. A colonic biopsy shows trophozoites containing RBCs. What is the most likely organism?

- (A) *Giardia lamblia*
- (B) *Cryptococcus neoformans*
- (C) *Cryptosporidium parvum*
- (D) *Entamoeba histolytica*

- 10** Which bacterium carries two separate circular chromosomes in its genome?
- (A) *Escherichia coli*
 - (B) *Vibrio cholerae*
 - (C) *Salmonella typhi*
 - (D) *Shigella dysenteriae*
- 11** A diabetic patient on corticosteroids presents with facial pain, a black nasal eschar and eye pain. What is the causative agent?
- (A) *Candida tropicalis*
 - (B) *Aspergillus fumigatus*
 - (C) *Cryptococcus neoformans*
 - (D) *Rhizopus*

Pathology

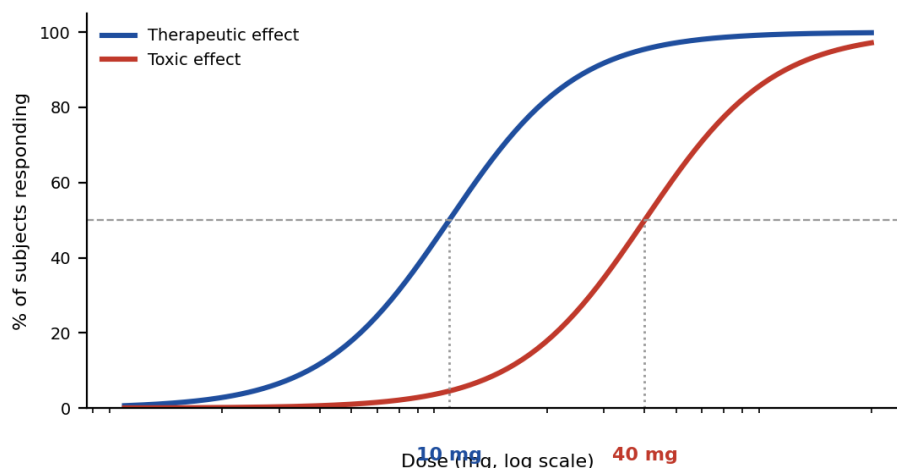
2 questions

- 1 Which vasculitis is NOT classed as a medium-vessel disease?
- (A) Microscopic polyangiitis (MPA)
 - (B) Polyarteritis nodosa (PAN)
 - (C) Buerger's disease (thromboangiitis obliterans)
 - (D) Kawasaki disease
- 2 A 12-year-old has hypertension and haematuria with raised serum C3. Renal biopsy shows subepithelial 'hump' deposits on electron microscopy. What is the most likely diagnosis?
- (A) Goodpasture syndrome
 - (B) Membranous glomerulonephritis
 - (C) Post-streptococcal glomerulonephritis (PSGN)
 - (D) Minimal change disease

Pharmacology

2 questions

- 1 Using the dose-response curves shown ($ED_{50} = 10$ mg, $TD_{50} = 40$ mg), calculate the therapeutic index of the drug.



Dose-response curves for therapeutic and toxic effects

- (A) 0.25
 - (B) 0.75
 - (C) 2
 - (D) 4
- 2 What is the mechanism of action of resmetirom?
- (A) Blocking the NPC1L1 transporter
 - (B) Activating PPAR- γ
 - (C) Blocking acetyl-CoA carboxylase
 - (D) Stimulating the thyroid hormone receptor- β

Forensic Medicine & Toxicology

2 questions

- 1 A 16-year-old rape survivor presents at 16 weeks of pregnancy. All of the following are duties of the examining doctor EXCEPT:
- (A) Preserving fetal tissue for DNA analysis
 - (B) Informing the police
 - (C) Performing an MTP, if required, on the opinion of one doctor
 - (D) Obtaining parental consent for the medicolegal examination
- 2 How is the injury in the image best described?



Scalp injury

- (A) Laceration
- (B) Contusion
- (C) Stab wound
- (D) Bomb-blast injury

Ophthalmology

2 questions

- 1 A patient has sudden, painful vision loss with a relative afferent pupillary defect (RAPD), but the optic disc looks normal on fundoscopy. What is the diagnosis?
- (A) AION
 - (B) Central retinal artery occlusion
 - (C) Retrobulbar neuritis
 - (D) Papilloedema
- 2 What amplitude of accommodation is expected in a healthy child?
- (A) 2 D
 - (B) 5 D
 - (C) 14 D
 - (D) 25 D

ENT

2 questions

- 1 A patient develops sudden, severe, unexplained one-sided hearing loss, and audiometry confirms sensorineural loss. What is the first-line drug treatment?
 - (A) Intratympanic steroid injections
 - (B) Topical steroid ear drops
 - (C) Gentamicin with systemic steroids
 - (D) Oral prednisolone (systemic corticosteroids)
- 2 Which of the following is NOT part of the classical triad of Melkersson-Rosenthal syndrome?
 - (A) Lower motor neuron facial palsy
 - (B) Proptosis
 - (C) Orofacial granulomatous oedema
 - (D) Fissured (scrotal) tongue

Community Medicine

2 questions

- 1 Calculate the odds ratio from the data in the table.

	Cancer	No cancer
Smoker	80	20
Non-smoker	40	60

- (A) 6
 - (B) 8
 - (C) 10
 - (D) 12
- 2 Assertion: In a nested case-control study, incidence rates can be derived from the parent cohort.
Reason: Nested case-control studies can estimate relative risk accurately.
 - (A) Both correct, and the reason explains the assertion
 - (B) Both correct, but unrelated to each other
 - (C) Assertion correct, reason incorrect
 - (D) Assertion incorrect, reason correct

Obstetrics & Gynaecology

2 questions

- 1 A 34-year-old G2P1 woman with pre-eclampsia in her last pregnancy attends her first antenatal visit at 12 weeks. What is the most appropriate step to prevent pre-eclampsia this time?
 - (A) Low-dose aspirin
 - (B) Low-dose aspirin plus low-molecular-weight heparin
 - (C) Low calcium intake
 - (D) Low salt intake

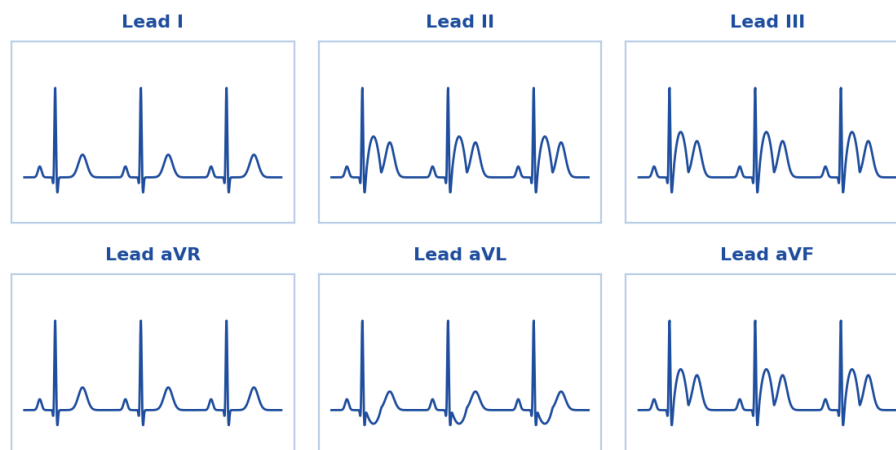
2 A 21-year-old woman has primary amenorrhoea, an absent uterus, normal breast development and sparse pubic and axillary hair. What is the underlying aetiology?

- (A) MRKH syndrome
- (B) Androgen insensitivity
- (C) Turner syndrome
- (D) CAH

Medicine

2 questions

1 A 58-year-old man has crushing chest pain radiating to the jaw. His ECG shows ST elevation in leads II, III and aVF. Which coronary artery is most likely occluded?



Illustrative 6-lead ECG strip (limb leads)

- (A) Right coronary artery
- (B) Posterior descending artery
- (C) Left circumflex artery
- (D) Anterior interventricular artery

2 A patient has hypercalcaemia of malignancy. What is the first step in management?

- (A) Loop diuretics
- (B) Intravenous rehydration with normal saline
- (C) Bisphosphonates
- (D) Other supportive measures

Paediatrics

2 questions

- 1 A neonate has prolonged jaundice, an umbilical hernia and generalised hypotonia. What is the most likely diagnosis?
- (A) Galactosemia
 - (B) Down syndrome
 - (C) Biliary atresia
 - (D) Congenital hypothyroidism
- 2 A child with Dravet syndrome on multiple anti-seizure drugs is being considered for add-on fenfluramine. Given its known adverse-effect profile, which monitoring is most critical before and during therapy?
- (A) Monthly CBC for agranulocytosis and aplastic anaemia
 - (B) Serial echocardiography for valvular heart disease and pulmonary hypertension
 - (C) Baseline and periodic eye exams for visual field defects
 - (D) Serial liver function tests and serum ammonia for hepatotoxicity

Surgery

2 questions

- 1 Which of the following is NOT part of the lethal triad associated with massive blood transfusion?
- (A) Acidosis
 - (B) Hypothermia
 - (C) Coagulopathy
 - (D) Hyponatraemia
- 2 FNAC of a thyroid nodule suggests follicular carcinoma. What is the most appropriate next step?
- (A) Hemithyroidectomy
 - (B) Total thyroidectomy
 - (C) Radioactive iodine therapy
 - (D) Repeat FNAC

Orthopaedics

2 questions

- 1 A 60-year-old man treated for TB a year ago now has low back pain, and MRI shows a spinal lesion. What is the most appropriate next investigation?



MRI of the spine

- (A) CECT spine
(B) Mantoux test
(C) CT chest
(D) Biopsy
- 2 A 30-year-old woman after a road accident has persistent pain despite analgesics. Compartment pressure is 90 mmHg and the distal pulse is absent. What is the treatment?
- (A) Emergency fasciotomy
(B) Observation
(C) Increase IV analgesics
(D) External fixation

Radiology

2 questions

- 1 A radiologist is reviewing requests for gadolinium-based contrast MRI (ACR Group II agent). In which scenario is contrast MRI contraindicated or does it need special caution?
- (A) A child with a normal renal function report
(B) A 50-year-old with eGFR 30 mL/min/1.73 m²
(C) A healthy 30-year-old man with no renal function tests available
(D) A 60-year-old diabetic man with no renal function tests available
- 2 An elderly woman arrives in the emergency department with sudden left flank pain radiating to the groin. What is the most appropriate initial imaging protocol?
- (A) Direct MRI of the abdomen and pelvis
(B) Ultrasound abdomen, then CT if inconclusive
(C) Plain abdominal X-ray, then CT urogram
(D) Non-contrast CT, then contrast-enhanced CT

Psychiatry

2 questions

- 1 Which statement correctly describes classical conditioning?
 - (A) Association between a conditioned stimulus and a conditioned response
 - (B) Association between an unconditioned stimulus and an unconditioned response
 - (C) An unconditioned stimulus produces a conditioned response after learning
 - (D) A conditioned stimulus triggers a conditioned response after learning
- 2 Which instruction is correct for a patient using nicotine replacement therapy?
 - (A) Gums are more effective than lozenges
 - (B) Avoid drinks such as tea or coffee for 15 minutes before using a gum or lozenge
 - (C) Correct timing of doses
 - (D) Proper storage of nicotine products

Anaesthesia

2 questions

- 1 A 40-year-old woman undergoing parotid surgery under general anaesthesia shows the findings below about 10 minutes into the procedure. What is the most likely diagnosis?

EtCO ₂	Temp	HR	BP
↑ Rising	40 °C / 104 °F	150 bpm	180/110 mmHg

Intra-operative monitor readings

- (A) Heat stroke
 - (B) Malignant hyperthermia
 - (C) Heat cramps
 - (D) Heat pyrexia
- 2 During a lumbar puncture, the needle passes through several layers before reaching the subarachnoid space. Which option gives the correct order of piercing?
 1. Ligamentum flavum 2. Supraspinous ligament 3. Interspinous ligament 4. Dura mater 5. Subdural space 6. Arachnoid mater 7. Epidural space
 - (A) 2 → 3 → 1 → 7 → 4 → 5 → 6
 - (B) 2 → 3 → 7 → 1 → 4 → 5 → 6
 - (C) 3 → 2 → 1 → 7 → 4 → 5 → 6
 - (D) 2 → 1 → 3 → 4 → 7 → 5 → 6

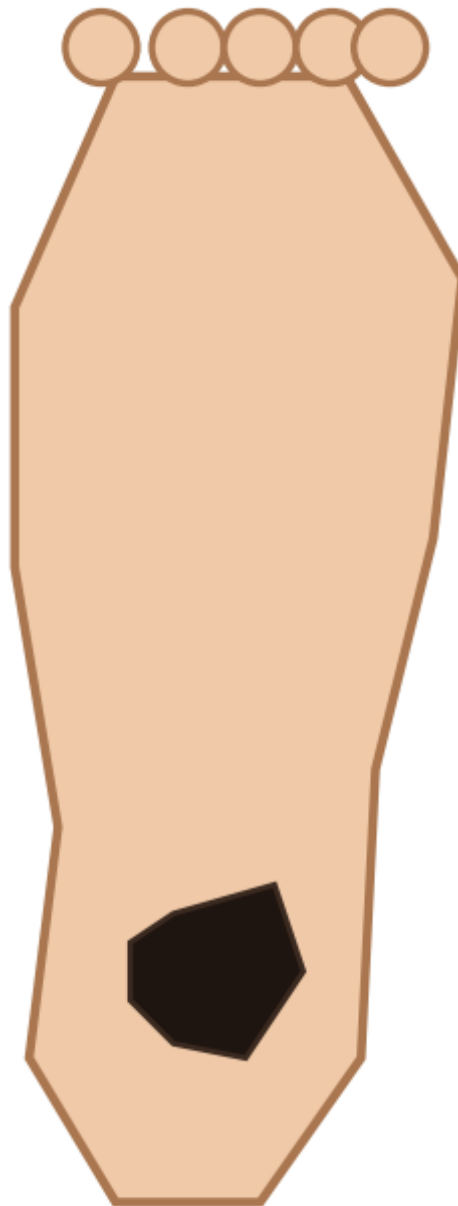
Dermatology

2 questions

1 A patient has patchy hair loss with itching and scaling of the scalp. Which treatment is most suitable?

- (A) Methotrexate
- (B) Topical corticosteroids
- (C) Oral antibiotics
- (D) Oral antifungals

- 2 A dark black lesion is found on the sole of a patient's foot. What is the most appropriate initial investigation?



Plantar surface: dark, irregular pigmented lesion (schematic)

Schematic illustration (simplified, not to scale)

- (A) KOH mount
- (B) Gram stain
- (C) Skin biopsy
- (D) Tzanck smear

Dental & Allied Mixed Set

51 questions

- 1** Which lesion classically appears as a central radiopaque mass surrounded by a radiolucent halo on a radiograph?
 - (A) Cementoblastoma
 - (B) Periapical cemento-osseous dysplasia
 - (C) Complex odontoma
 - (D) Condensing osteitis
- 2** A woman develops tremors and palpitations after 3–5 puffs of an inhaled medicine. Which drug is the likely cause?
 - (A) Salbutamol
 - (B) Budesonide
 - (C) Sodium cromoglycate
 - (D) Ipratropium bromide
- 3** What is the most commonly expected side effect of inhaled budesonide in asthma?
 - (A) Skeletal tremor
 - (B) Mucormycosis
 - (C) Anaphylaxis
 - (D) Oropharyngeal candidiasis
- 4** Which is the lightest shade in the classic Vita shade guide?
 - (A) C1
 - (B) A1
 - (C) D1
 - (D) B1
- 5** Which combination contains only antiplatelet drugs?
 - (A) Aspirin and fondaparinux
 - (B) Clopidogrel and fondaparinux
 - (C) Ticagrelor and clopidogrel
 - (D) Fondaparinux and ticagrelor
- 6** When gutta-percha obturation is incomplete, which is the most efficient way to retrieve the gutta-percha?
 - (A) Chemical solvent technique
 - (B) H-file instrumentation
 - (C) Round bur
 - (D) Thermal softening
- 7** Which is a commonly used non-resorbable suture material?
 - (A) Polyglactin 910
 - (B) Polypropylene
 - (C) Catgut
 - (D) Polyglycolic acid

- 8** Which medication can influence bone deposition and remodelling during orthodontic tooth movement?
- (A) Ibuprofen
 - (B) Acetaminophen
 - (C) Aspirin
 - (D) Dexamethasone
- 9** In which type of dental trauma is immediate prophylactic endodontic treatment most often indicated?
- (A) Intrusion
 - (B) Extrusion
 - (C) Lateral luxation
 - (D) Root fracture
- 10** What is the main function of a utility arch wire in correcting a deep bite?
- (A) Intrusion of incisors
 - (B) Extrusion of molars
 - (C) Retraction of canines
 - (D) Proclination of premolars
- 11** Identify the component shown in the image.
- (A) Utility arch
 - (B) Begg appliance
 - (C) Straight-wire appliance
 - (D) None of the above
- 12** What does the term palatography describe in clinical assessment?
- (A) Measuring the shape and curvature of the hard palate
 - (B) Recording tongue contact with the palate and teeth
 - (C) Visualising palatal vascular anatomy radiographically
 - (D) Mapping nerve endings in the palatal mucosa
- 13** In dental implantology, bone tapping is typically done in which situation?
- (A) Dense bone
 - (B) Resorbed bone
 - (C) Osteoporotic bone
 - (D) Demineralised bone
- 14** What is the optimal force range for effective root uprighting?
- (A) 10-20 g
 - (B) 50-100 g
 - (C) 70-120 g
 - (D) 35-60 g
- 15** Match each habit with its clinical feature.
1. Thumb sucking 2. Mouth breathing 3. Tongue thrusting 4. Bruxism
- a. Adenoid facies b. Spacing between maxillary anteriors c. Occlusal facets d. Maxillary anterior proclination with lower anterior retroclination
- (A) 1-a, 2-b, 3-c, 4-d
 - (B) 1-b, 2-c, 3-d, 4-a
 - (C) 1-c, 2-d, 3-a, 4-b
 - (D) 1-d, 2-a, 3-b, 4-c

- 16** Which appliance is most appropriate for a unilateral posterior crossbite?
- (A) Bionator
 - (B) Quad helix
 - (C) NiTi expander
 - (D) Frankel appliance
- 17** In Winter's classification of impacted mandibular third molars, what does the red line represent?
- (A) Path of insertion
 - (B) Angulation of the impacted tooth
 - (C) Level of the occlusal plane
 - (D) Depth of bone removal required
- 18** According to current AHA guidelines, in which condition is antibiotic prophylaxis NOT recommended before invasive dental procedures?
- (A) Prosthetic cardiac valve
 - (B) Mitral valve prolapse without regurgitation
 - (C) Unrepaired cyanotic congenital heart disease
 - (D) History of infective endocarditis
- 19** Tooth 11 was in anterior crossbite and has been successfully corrected. How long should retention be maintained?
- (A) 2 months
 - (B) Not needed
 - (C) 3-6 months
 - (D) 12 months
- 20** Which statement about apical (periradicular) endodontic surgery is true?
- (A) It gives direct visibility and access to the apical region
 - (B) It guarantees complete removal of the whole periapical lesion
 - (C) It significantly reduces bleeding at the site
 - (D) It promotes spontaneous regeneration of all periapical bone
- 21** Two equal, parallel forces act in opposite directions at different points on a tooth. What is the likely effect?
- (A) A moment is created, rotating the tooth
 - (B) The forces cancel, giving bodily movement
 - (C) The forces act vertically, intruding the tooth
 - (D) The forces are unbalanced at the crown, causing uncontrolled tipping
- 22** Pitch changes are seen in which of the following?
- (A) Occlusal plane in the sagittal view
 - (B) Occlusal plane in the frontal view
 - (C) Canting or tipping of the occlusal plane
 - (D) Rotation of the jaws or teeth up or down, altering vertical dimension
- 23** Which material supplies the calcium ions needed for dentin formation and regeneration?
- (A) Mineral trioxide aggregate (MTA)
 - (B) Glass ionomer cement
 - (C) Zinc oxide eugenol
 - (D) Amalgam

- 24** In a patient with panfacial trauma and limited mouth opening, which is the most appropriate intubation route?
- (A) Submental
 - (B) Nasotracheal
 - (C) Orotracheal
 - (D) Cricothyroidotomy
- 25** In which phase of dentition does intercanine width increase the most?
- (A) Early mixed dentition
 - (B) Late mixed dentition
 - (C) Primary dentition
 - (D) Permanent dentition
- 26** Identify the instruments shown in the image.
- (A) #17 and #23
 - (B) #3CH pigtail
 - (C) #3
 - (D) #11 and #12
- 27** Reading the image from right to left, identify the defects shown.
- (A) Fenestration and dehiscence
 - (B) Dehiscence and fenestration
 - (C) Dehiscence and crater
 - (D) Crater and fenestration
- 28** Which antitubercular drug is correctly matched with its common adverse effect?
1. Isoniazid – Peripheral neuritis 2. Ethambutol – Optic neuritis 3. Rifampicin – Hepatitis 4. Streptomycin – Ototoxicity
- (A) 1-a, 2-b, 3-c, 4-d
 - (B) 1-b, 2-c, 3-d, 4-a
 - (C) 1-c, 2-d, 3-a, 4-b
 - (D) 1-b, 2-a, 3-c, 4-d
- 29** What ICDAS score corresponds to the lesion in the image?
- (A) Score 4
 - (B) Score 5
 - (C) Score 3
 - (D) Score 6
- 30** Which of the following is NOT a non-invasive procedure?
- (A) ART
 - (B) Hall technique
 - (C) Pulpotomy
 - (D) Silver diamine fluoride application
- 31** How do addition silicone and condensation silicone impression materials mainly differ?
- (A) Both release alcohol as a by-product
 - (B) Addition silicone releases alcohol as a by-product
 - (C) Condensation silicone releases no by-product
 - (D) Addition silicone releases no by-product

- 32** Match each virus with its characteristic inclusion body.
1. CMV 2. Rabies virus 3. HSV 4. HPV
A. Owl's eye B. Cowdry type A C. Negri bodies D. Koilocytotic atypia
(A) 1-A, 2-B, 3-C, 4-D
(B) 1-A, 2-C, 3-B, 4-D
(C) 1-C, 2-D, 3-A, 4-B
(D) 1-D, 2-B, 3-A, 4-C
- 33** Which parasympathetic ganglion is NOT topographically associated with the nerve that supplies both upper and lower jaws?
(A) Ciliary ganglion
(B) Sphenopalatine ganglion
(C) Submandibular ganglion
(D) Otic ganglion
- 34** Which type of gingival retraction is used for the final impression?
(A) Retraction cord
(B) Soft laser
(C) Displacement paste
(D) Electrosurgery
- 35** The tip of a premolar root is displaced into the maxillary sinus during extraction. What is the next step?
(A) Sinus irrigation
(B) Caldwell-Luc approach
(C) Leave it and prescribe antibiotics
(D) Valsalva manoeuvre
- 36** During a Le Fort I osteotomy, sudden bradycardia occurs while the maxilla is being mobilised. Which stimulation causes this reflex?
(A) Cranial nerve V
(B) Cranial nerve VI
(C) Cranial nerve III
(D) Cranial nerve VII
- 37** Who is associated with developing a periapical radiographic index for assessing periapical status?
(A) Ørstavik
(B) Estrela
(C) Ingle
(D) Weine
- 38** When is the first dental visit recommended for a child?
(A) By 1 year, or within 6 months of the first tooth erupting
(B) At 3 years
(C) After the first permanent tooth erupts
(D) Only if there is pain or decay

- 39** A person ascends suddenly to a high altitude. Which acid-base disturbance occurs first?
- (A) Respiratory alkalosis
 - (B) Respiratory acidosis
 - (C) Metabolic alkalosis
 - (D) Metabolic acidosis
- 40** Alginate comes in fast-set and regular-set forms. The difference in setting time is mainly due to variation in which component?
- (A) Sodium bicarbonate
 - (B) Potassium sulfate
 - (C) Calcium carbonate
 - (D) Sodium phosphate
- 41** Why is orthodontic treatment carried out both before and after orthognathic surgery?
- (A) To align the teeth with the corrected jaw position
 - (B) Only to allow occlusal decompensation
 - (C) Mainly to prevent root resorption
 - (D) To maintain skeletal anchorage during healing
- 42** What is your immediate concern when giving intravenous penicillin to a 9-year-old child?
- (A) Antibiotic-associated diarrhoea
 - (B) Anaphylaxis
 - (C) Development of bacterial resistance
 - (D) Disruption of normal gut flora
- 43** Match each cephalometric landmark with its description.
A. Sella (S) B. Nasion (N) C. Porion (Po) D. Subspinale (Point A)
1. Centre of sella turcica; constructed midline point
 2. Most anterior point of the frontonasal suture in the mid-sagittal plane
 3. Anthropologic point on the upper border of the external auditory meatus
 4. Deepest, most posterior midline point on the alveolar process
- (A) A→2, B→3, C→1, D→4
 - (B) A→1, B→2, C→3, D→4
 - (C) A→3, B→2, C→1, D→4
 - (D) A→4, B→1, C→3, D→2
- 44** What is the primary mechanism of action of salbutamol in bronchial asthma?
- (A) Inhibition of mast cell degranulation
 - (B) Stimulation of β_2 -adrenergic receptors causing bronchodilation
 - (C) Inhibition of leukotriene synthesis
 - (D) Suppression of the cough centre in the medulla
- 45** Which antibiotic has been shown to help cyclosporine-induced gingival enlargement through anti-inflammatory or fibroblast-modulating effects?
- (A) Amoxicillin
 - (B) Azithromycin
 - (C) Clindamycin
 - (D) Metronidazole

- 46** In which condition are bisphosphonates mainly indicated?
- (A) Primary hyperparathyroidism
 - (B) Age-related (postmenopausal) osteoporosis
 - (C) Rickets
 - (D) Chronic kidney disease
- 47** A minimum alveolar concentration (MAC) of 105% for nitrous oxide indicates which property?
- (A) Low safety margin
 - (B) Reduced diffusion capacity
 - (C) Low potency
 - (D) High lipid solubility
- 48** A traumatised tooth with vital pulp has about 2 mm of coronal pulp removed. Which procedure is this?
- (A) Direct pulp capping
 - (B) Full coronal pulpotomy
 - (C) Partial pulpotomy
 - (D) Apexification
- 49** Which is NOT a feature of the trigeminovagal reflex?
- (A) Hypotension
 - (B) Bradycardia
 - (C) Hypertension
 - (D) Increased gastric motility
- 50** Which of the following is NOT an anti-inflammatory cytokine?
- (A) IL-1Ra
 - (B) IL-11
 - (C) TNF- α
 - (D) IL-10
- 51** Which best describes the knot configuration of a simple surgeon's knot?
- (A) Two throws in the same direction, then two more in the same direction
 - (B) Two throws in the same direction, then one more in the same direction
 - (C) One throw, then two throws in the opposite direction
 - (D) Single throw followed by another single throw in the same direction

Answer Key

127 questions

1. Anatomy & Embryology

1. A	2. D†	3. C	4. A	5. A	6. B	7. C	8. B†		
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2. Physiology

1. A	2. D	3. D†	4. D	5. D	6. C	7. A	8. B	9. A	10. B
11. D	12. C	13. A	14. A	15. C					

3. Biochemistry

1. A	2. C	3. C	4. A	5. D	6. C	7. C	8. D	9. D	10. D
11. C	12. B								

4. Microbiology

1. C	2. C	3. D	4. D	5. D	6. B	7. B	8. D†	9. D	10. B
11. D									

5. Pathology

1. A	2. C								
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6. Pharmacology

1. D	2. D								
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7. Forensic Medicine & Toxicology

1. D	2. A								
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8. Ophthalmology

1. C	2. C								
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9. ENT

1. D	2. B								
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10. Community Medicine

1. A	2. B								
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11. Obstetrics & Gynaecology

1. A	2. A								
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12. Medicine

1. A	2. B								
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13. Paediatrics

1. D	2. B								
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14. Surgery

1. D	2. A								
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15. Orthopaedics

1. B†	2. A								
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16. Radiology

1. D	2. B								
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17. Psychiatry

1. D	2. B								
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18. Anaesthesia

1. B	2. A								
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19. Dermatology

1. D	2. C								
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20. Dental & Allied Mixed Set

1. A†	2. A	3. D	4. D	5. C	6. Verify	7. B	8. Verify	9. A†	10. A
11. Verify	12. B	13. A	14. Verify	15. D	16. Verify	17. D†	18. B	19. C†	20. A
21. A	22. A†	23. A	24. A†	25. A†	26. Verify	27. Verify	28. Verify	29. Verify	30. C†
31. D	32. B	33. A†	34. A†	35. Verify	36. A†	37. A†	38. A	39. A	40. Verify
41. A†	42. B	43. B	44. B	45. B	46. B	47. C	48. C	49. C	50. C
51. Verify									

† Recall-based answer – verify against a standard reference before publishing. “Verify” = answer not supplied in the source material.