

NEET MDS Oral and Maxillofacial Surgery Sample Paper – 7

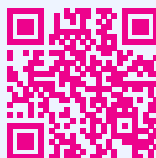
Questions: 100 Duration: 90 Minutes Max Marks: 400

Marking: +4 Correct –1 Wrong 0 Unattempted

Instructions to Candidates

- All questions are compulsory and carry equal marks.
- Each correct answer awards **+4 marks**; each wrong answer deducts **1 mark**.
- Use **blue or black ballpoint pen** only on the OMR sheet.
- Do not fold, staple or damage the OMR answer sheet.
- Rough work may be done on the space provided in the question booklet.
- Mobile phones and electronic devices are **strictly prohibited**.

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Section: Oral and Maxillofacial Surgery (Q1–Q100)**Third Molar Impaction (Q1–Q15)**

- Q1.** A 22-year-old male presents with pain and swelling in the lower left jaw of 5 days duration. He has difficulty opening his mouth and eating. On examination, a partially erupted lower left third molar is seen with overlying inflamed operculum. Which of the following best describes the primary diagnosis?
- (A) Dentoalveolar abscess
 - (B) Periapical periodontitis
 - (C) Acute suppurative sialadenitis
 - (D) Pericoronitis
- Q2.** According to current NICE guidelines (UK, 2000, updated periodically), surgical removal of third molars should be considered only when there is:
- (A) Any degree of impaction visible on panoramic X-ray
 - (B) Evidence of pathology such as recurrent pericoronitis, caries, or cyst formation
 - (C) Patient request for prophylactic removal before orthodontics
 - (D) Third molar visible below the cervical margin of second molar
- Q3.** When assessing the space available for eruption of the mandibular third molar, the most critical anatomical landmark measured on an OPG is the distance from:
- (A) Distal surface of second molar to anterior border of ramus
 - (B) Mesial surface of second molar to posterior border of ramus
 - (C) Distal surface of first molar to anterior border of ramus
 - (D) Midpoint of second molar to pterygomandibular raphe



Q4. On a dental panoramic tomograph (DPT), which radiographic sign of IAN involvement indicates that the apex of the third molar root is within or very close to the inferior alveolar canal lumen?

- (A) Distal angulation of the root tip
- (B) Increased radiopacity at root apex
- (C) Widening of the periodontal ligament space at root apex
- (D) Darkening (loss of white line) of the root where it crosses the canal

Q5. Coronectomy (intentional root retention) is most appropriate when:

- (A) The third molar roots are intimately associated with the IAN canal as confirmed on CBCT and the tooth is not infected
- (B) Patient has haemophilia and cannot undergo full extraction
- (C) The third molar has fully erupted but is in crossbite
- (D) The patient declines general anaesthesia

Q6. The reported incidence of permanent inferior alveolar nerve (IAN) paraesthesia following mandibular third molar extraction is approximately:

- (A) Less than 0.1%
- (B) 10–15%
- (C) 0.4–8%
- (D) 20–30%

Q7. The incidence of lingual nerve injury following lower third molar surgery is reported to range between:

- (A) 0.1–0.5%
- (B) 5–10%
- (C) 10–15%



(D) 0–23% (with lingual flap reflection significantly increasing risk)

Q8. A patient develops altered sensation of the lower lip and chin following third molar extraction. Conservative management includes all of the following EXCEPT:

(A) Vitamin B1 (thiamine) supplementation

(B) Vitamin B6 (pyridoxine) supplementation

(C) Alpha-lipoic acid

(D) Long-term systemic corticosteroids

Q9. The prevalence of maxillary canine impaction in the general population is approximately:

(A) 0.1–0.3%

(B) 1–3%

(C) 5–8%

(D) 10–12%

Q10. In cases of impacted maxillary canines, what percentage are found to be palatally positioned?

(A) 50%

(B) 60%

(C) 85%

(D) 95%

Q11. Ectopic eruption of the maxillary first permanent molar is characterised by resorption of the:

(A) Crown of the first permanent molar

(B) Distal root of the maxillary second primary molar



- (C) Mesial root of the maxillary first primary molar
- (D) Alveolar bone distal to the second primary molar
- Q12.** An ankylosed (submerged) deciduous molar is best identified clinically by:
- (A) Mobility greater than adjacent teeth
- (B) Infraocclusion and absence of normal percussion sound (dull on percussion)
- (C) Widened periodontal ligament on radiograph
- (D) Presence of swelling in the buccal sulcus
- Q13.** Which of the following is the best management for a moderately submerged ankylosed deciduous molar with no successor permanent tooth and causing tipping of adjacent teeth?
- (A) Observation alone until natural exfoliation
- (B) Immediate orthodontic extrusion
- (C) Build-up with composite to restore occlusal contact
- (D) Surgical removal to prevent further alveolar bone loss and space loss
- Q14.** A Nance holding arch is used primarily to:
- (A) Maintain arch length in the upper jaw after premature loss of primary molars
- (B) Retract the upper anterior teeth in Class II correction
- (C) Expand the maxillary arch transversely
- (D) Hold the lower arch after lower premolar extraction
- Q15.** Transposition in the dental arch most commonly involves which two teeth in the maxilla?
- (A) Maxillary canine and first premolar



- (B) Maxillary lateral incisor and central incisor
- (C) Maxillary canine and lateral incisor
- (D) Maxillary first and second premolars

Exodontia (Q16–Q25)

Q16. The Coupland elevator is applied with its blade inserted:

- (A) Into the furcation of a multi-rooted tooth
- (B) Buccally between the alveolar bone and tooth root, using lever action
- (C) Palatally, rotating the tooth with a wheel-and-axle motion
- (D) Into the socket to engage the root apex for delivery

Q17. The Cryer elevator is used with:

- (A) A straight, push motion directed apically
- (B) Buccal placement with a lever action similar to Coupland
- (C) Placement in the interradicular space, using a rotation (angular) motion
- (D) Placement under the crown of the tooth for leverage

Q18. A diabetic patient on insulin has an uneventful mandibular molar extraction. The socket heals poorly at 10 days with persistent pain and granulation tissue. The most likely reason for delayed healing in this patient is:

- (A) Impaired neutrophil chemotaxis and angiogenesis due to hyperglycaemia
- (B) Insulin suppressing wound growth factors
- (C) Increased fibrinolysis from elevated blood glucose
- (D) Mandibular bone having poor vascularity in diabetics

Q19. Whitehead's varnish-impregnated ribbon gauze pack is used in haemophilia patients after extraction because it:



- (A) Contains vasoconstrictors that reduce bleeding
 - (B) Promotes platelet aggregation at the wound site
 - (C) Provides mechanical pressure and protects the clot while slowly releasing antiseptic
 - (D) Delivers factor VIII directly to the extraction site
- Q20.** Bone wax (Horsley's bone wax) is used for haemostasis in oral surgery primarily by:
- (A) Activating the clotting cascade at the bone surface
 - (B) Promoting osteogenesis to rapidly seal bleeding vessels
 - (C) Releasing thrombin from a synthetic matrix
 - (D) Mechanically tamponading bleeding cancellous bone channels
- Q21.** Lingual nerve injury is most commonly caused during lower third molar surgery by:
- (A) Reflection of the lingual flap and retraction with a lingual retractor
 - (B) Overzealous use of bur at the lingual root apex
 - (C) Application of inferior alveolar nerve block too posteriorly
 - (D) Elevating the tooth with a Warwick-James elevator
- Q22.** Surgical emphysema following tooth extraction is most commonly caused by:
- (A) Air forced into tissues from an air-driven (turbine) handpiece used for bone removal
 - (B) Infection by gas-producing organisms (Clostridia) in the socket
 - (C) Trapped air during suture placement
 - (D) Patient blowing their nose against resistance after extraction



- Q23.** During a lengthy extraction procedure, a patient develops inability to close their mouth. The condyles are displaced anteriorly and the mandible is locked in an open position. The immediate management is:
- (A) Intravenous diazepam followed by ORIF of condyle
 - (B) Cold compress and referral to physiotherapy
 - (C) Manual reduction by downward and backward pressure on the posterior mandible with thumbs on molars
 - (D) Apply Barton bandage and discharge with soft diet instructions
- Q24.** The incidence of alveolar osteitis (dry socket) following routine mandibular third molar extraction is approximately:
- (A) 20–30%
 - (B) 2–4%
 - (C) 50%
 - (D) Less than 1%
- Q25.** Alvogyl dressing used in the management of alveolar osteitis (dry socket) contains:
- (A) Thymol, iodine, and lidocaine
 - (B) Butamben, eugenol, and iodoform
 - (C) Chlorhexidine, zinc oxide, and eugenol
 - (D) Bismuth subnitrate, iodoform, and petroleum jelly

Local Anaesthesia (Q26–Q40)

- Q26.** A patient develops progressive trismus over 48 hours following an inferior alveolar nerve block. There is no visible swelling and the temperature is normal. The most likely cause is:
- (A) Infection in the pterygomandibular space



- (B) Haematoma in the medial pterygoid muscle causing muscle spasm
- (C) Allergic reaction to the local anaesthetic
- (D) Damage to the mandibular division of the trigeminal nerve

Q27. A complication unique to the infraorbital nerve block that does not occur with IANB is:

- (A) Haematoma formation
- (B) Facial nerve palsy
- (C) Diplopia due to retrograde spread of LA to extraocular muscles
- (D) Trismus

Q28. After a posterior superior alveolar (PSA) nerve block, a patient develops a large swelling of the cheek that is soft, non-tender and appears immediately after injection. The cause is:

- (A) Infection introduced by the needle
- (B) Parotid gland swelling from inadvertent cannulation
- (C) Allergic oedema to the anaesthetic solution
- (D) Haematoma from puncture of the pterygoid venous plexus

Q29. The first-line treatment for local anaesthetic systemic toxicity (LAST) with cardiovascular collapse is:

- (A) Intravenous lipid emulsion (Intralipid 20%), 1.5 ml/kg bolus followed by infusion
- (B) Intravenous adrenaline 1 mg repeated every 3–5 minutes
- (C) Intravenous sodium bicarbonate to correct acidosis
- (D) Intravenous calcium gluconate to restore cardiac contractility

Q30. True allergy to an amide local anaesthetic is most commonly attributed to:



- (A) The amide nucleus of the LA molecule itself
- (B) Sodium metabisulphite (antioxidant for the vasoconstrictor)
- (C) Methylparaben (preservative used in multi-dose vials)
- (D) Hyaluronidase added to enhance diffusion

Q31. Allergy to ester local anaesthetics (e.g., procaine) is mediated primarily through:

- (A) IgE-mediated reaction to the ester nucleus
- (B) Complement activation by the ester molecule
- (C) T-cell mediated delayed hypersensitivity to the preservative
- (D) Para-aminobenzoic acid (PABA) generated as a metabolite

Q32. Adding sodium bicarbonate to a local anaesthetic solution before injection achieves which of the following benefits?

- (A) Extends the duration of anaesthesia by preventing reuptake
- (B) Reduces injection pain by raising the pH and increasing the proportion of uncharged free base
- (C) Increases vasoconstriction by potentiating adrenaline
- (D) Prevents methemoglobinaemia from prilocaine

Q33. The Wand (Computer-controlled Local Anaesthetic Delivery, CCLAD) system delivers anaesthesia more comfortably primarily because:

- (A) It uses a thinner needle gauge than conventional syringes
- (B) It delivers solution at a slow, constant, controlled rate preventing pressure-related pain
- (C) It heats the anaesthetic solution to body temperature before injection
- (D) It automatically calculates the exact dose required for each patient



- Q34.** The Quicksleeper intraosseous injection system is specifically designed to deliver anaesthesia:
- (A) Directly into the cancellous bone through the cortical plate adjacent to the tooth
 - (B) Into the periodontal ligament using a ligamental syringe
 - (C) Subperiosteally along the buccal plate of bone
 - (D) Into the pulp chamber via an access cavity
- Q35.** Compared to the maxillary nerve block, the inferior alveolar nerve block achieves anaesthesia of a structure that has a unique feature. Which of the following structures is anaesthetised by IANB but NOT typically affected by equivalent maxillary blocks?
- (A) The attached gingiva buccally
 - (B) The palatal mucosa
 - (C) The infra-orbital skin
 - (D) The skin of the lower lip and chin (mental distribution)
- Q36.** Failure of inferior alveolar nerve block (IANB) most commonly results from:
- (A) Systemic absorption of the local anaesthetic before it reaches the nerve
 - (B) Injection into the parotid gland causing facial palsy instead of anaesthesia
 - (C) Bifid inferior alveolar canal with accessory nerve supply
 - (D) Incorrect anatomical landmark identification causing deposition too low or anterior
- Q37.** In the Akinosi (closed-mouth) mandibular nerve block, the needle is directed:
- (A) Parallel to the occlusal plane, adjacent to the maxillary tuberosity, aiming posteriorly toward the pterygomandibular space



- (B) Perpendicular to the buccal mucosa at the coronoid notch level
- (C) Downward at 45 degrees from the occlusal plane into the floor of the mouth
- (D) Through the sigmoid notch in the standard Gow-Gates direction but with mouth closed

Q38. The Gow-Gates mandibular block targets the nerve at the level of:

- (A) The mandibular foramen on the medial ramus
- (B) The pterygomandibular space posterior to the lingula
- (C) The mental foramen as it exits the mandible
- (D) The condylar neck, anaesthetising the entire mandibular division before branching

Q39. In a patient who receives an IANB correctly, accessory innervation to the mandibular incisors may be provided by which nerve that can cause incomplete anaesthesia?

- (A) Long buccal nerve crossing the midline
- (B) Incisive branch of the mental nerve crossing the midline from the contralateral side
- (C) Mylohyoid nerve providing a branch to the incisor apex
- (D) Inferior labial branch of the facial nerve

Q40. The maximum recommended dose of lidocaine with adrenaline (1:100,000) for a healthy adult in dental practice is:

- (A) 3 mg/kg, up to a maximum of 200 mg
- (B) 5 mg/kg, up to a maximum of 300 mg
- (C) 7 mg/kg, up to a maximum of 500 mg
- (D) 10 mg/kg, up to a maximum of 600 mg



Orofacial Infections (Q41–Q52)

- Q41.** The canine (infraorbital) space is bounded inferiorly by the levator anguli oris and superiorly by the levator labii superioris. Infection in this space typically causes:
- (A) Swelling of the lower eyelid only
 - (B) Posterior spread to the masticator space
 - (C) Trismus due to involvement of the masseter
 - (D) Obliteration of the nasolabial fold and swelling below the medial canthus
- Q42.** The superficial temporal space lies between:
- (A) The temporalis muscle and the temporal bone
 - (B) The temporalis fascia and the superficial surface of the temporalis muscle
 - (C) The zygomatic arch and the masseter muscle
 - (D) The outer table of the temporal bone and the dura
- Q43.** In the typical spread pattern of severe odontogenic infection, which is the correct sequence of space involvement from a lower molar infection progressing intracranially?
- (A) Submasseteric → parapharyngeal → retropharyngeal → mediastinum
 - (B) Buccal → canine → infraorbital → intracranial
 - (C) Pterygomandibular → lateral pharyngeal → anterior visceral → lung
 - (D) Buccal → masticator → infratemporal → middle cranial fossa
- Q44.** Lemierre syndrome is characterised by septic thrombophlebitis of the internal jugular vein following oropharyngeal infection. The most appropriate antibiotic regimen is:
- (A) Oral amoxicillin-clavulanate for 6 weeks
 - (B) Intravenous vancomycin alone



- (C) Intravenous beta-lactam plus metronidazole, with anticoagulation remaining controversial
- (D) Intravenous clindamycin plus rifampicin

Q45. Clindamycin exerts its antibacterial effect by:

- (A) Inhibiting cell wall synthesis by binding PBPs
- (B) Disrupting the bacterial cell membrane by depolarisation
- (C) Binding the 50S ribosomal subunit and inhibiting peptidyl transferase (protein synthesis)
- (D) Inhibiting DNA gyrase and preventing DNA replication

Q46. Metronidazole kills anaerobic bacteria by which mechanism?

- (A) Competitive inhibition of folate synthesis
- (B) Reduction of its nitro group by bacterial ferredoxin, generating free radical species that damage DNA
- (C) Inhibition of 30S ribosomal subunit elongation factor
- (D) Inhibition of ergosterol synthesis in the cell membrane

Q47. Which antibiotic is the drug of choice for MRSA (methicillin-resistant *Staphylococcus aureus*) orofacial infections requiring intravenous treatment?

- (A) Clindamycin (MRSA is always clindamycin-sensitive)
- (B) Amoxicillin-clavulanate
- (C) Ciprofloxacin
- (D) Vancomycin

Q48. Which class of antibiotics is most strongly associated with cochleotoxicity (sensorineural hearing loss) and nephrotoxicity when used to treat severe head and neck infections?



- (A) Carbapenems
- (B) Aminoglycosides (e.g., gentamicin)
- (C) Glycopeptides (vancomycin)
- (D) Fluoroquinolones

Q49. The principle of “source control” in severe odontogenic infection refers to:

- (A) Administering high-dose antibiotics before any surgical procedure
- (B) Isolating the patient to prevent spread of infection to others
- (C) Surgical drainage of pus and removal or treatment of the causative tooth to eliminate the infectious source
- (D) Using a rubber dam during dental procedures to prevent contamination

Q50. Ludwig’s angina classically involves which of the following spaces bilaterally?

- (A) Sublingual, submylohyoid (submental), and submandibular spaces
- (B) Masticator and temporal spaces
- (C) Lateral pharyngeal and retropharyngeal spaces
- (D) Buccal and canine spaces

Q51. A patient with Ludwig’s angina who is deteriorating despite IV antibiotics and IV fluids. The tongue is elevated and the patient is drooling. The most critical immediate step is:

- (A) Emergency computed tomography of the neck
- (B) Securing the airway – awake fiberoptic intubation or surgical airway (tracheostomy)
- (C) Immediate incision and drainage under general anaesthesia
- (D) High-dose intravenous corticosteroids to reduce oedema



Q52. Actinomycosis of the jaw (cervicofacial actinomycosis) is characterised by:

- (A) Rapid progression, high fever, and elevation of CRP beyond 200
- (B) Infection exclusively by *Actinomyces israelii* in immunocompromised patients
- (C) Sensitivity to antifungal agents because *Actinomyces* resembles a fungus
- (D) Chronic indurated swelling with multiple sinuses discharging “sulphur granules”, treated with prolonged penicillin

Maxillofacial Fractures (Q53–Q64)

Q53. A completely edentulous elderly patient sustains a mandibular fracture. The preferred method of fixation using the patient’s own dentures secured to the bone is called:

- (A) Ivy loop wiring
- (B) Eyelet wiring
- (C) Gunning splint with circumzygomatic and circummandibular wires
- (D) Ernst ligature

Q54. A 9-year-old child sustains a condylar fracture following a fall. The first-line management in this age group (assuming no severe displacement and no open bite) is:

- (A) Conservative management with soft diet, physiotherapy, and close monitoring
- (B) Immediate open reduction and rigid internal fixation
- (C) Intermaxillary fixation for 6 weeks
- (D) Condylectomy to prevent growth disturbance

Q55. In panfacial fractures involving all three thirds of the face, the correct sequence of repair is generally:



- (A) Upper third (frontal) first, then midface, then mandible last
 - (B) Mandible first to establish a stable occlusal base, then midface upward, then upper third
 - (C) Midface first to establish AP position, then mandible and upper third simultaneously
 - (D) All fractures fixed simultaneously using a modular system
- Q56.** The zygomaticomaxillary buttress (ZMB) is a vertical bony strut important in midfacial reconstruction because it:
- (A) Forms the roof of the maxillary sinus
 - (B) Connects the palate to the pterygoid plates
 - (C) Transmits masticatory forces from the maxillary teeth to the cranial base
 - (D) Supports the floor of the orbit directly
- Q57.** Nasoorbito-ethmoid (NOE) fractures characteristically produce which physical finding that is not seen in other midface fractures?
- (A) Telecanthus (increased intercanthal distance due to detachment of medial canthal tendon)
 - (B) Enophthalmos from orbital floor blowout
 - (C) Circumorbital ecchymosis (bilateral raccoon eyes)
 - (D) Infraorbital nerve hypoaesthesia
- Q58.** Frontal sinus fractures involving the posterior table are managed differently from anterior table fractures because:
- (A) The posterior table is thicker and requires more energy to fracture
 - (B) Posterior table fractures are more likely to cause supraorbital nerve injury
 - (C) The anterior table is the load-bearing unit and must be repaired for cosmesis



- (D) Posterior table involvement risks intracranial complications including CSF leak, meningitis, and mucocele formation requiring obliteration or cranialization

Q59. The coronal (bicoronal) incision used in maxillofacial surgery runs:

- (A) From the mental symphysis to the mastoid process on each side
- (B) Along the lower eyelid margin bilaterally (subciliary)
- (C) Through the conjunctiva of the lower eyelid (transconjunctival)
- (D) From ear to ear across the vertex of the skull, providing access to the upper third of the face and upper midface

Q60. The subciliary incision for orbital floor access is placed:

- (A) 2 mm below the lash line of the lower eyelid, allowing exposure of the orbital rim and floor
- (B) Through the conjunctiva of the lower eyelid
- (C) Along the infraorbital margin at the skin crease
- (D) At the mid-portion of the lower eyelid in a horizontal skin crease (mid-lid)

Q61. A pure blowout fracture of the orbital floor produces which classic triad of signs?

- (A) Diplopia, telecanthus, and epistaxis
- (B) Enophthalmos, diplopia on upward gaze, and infraorbital hypoaesthesia
- (C) Proptosis, pain on eye movement, and chemosis
- (D) Ptosis, miosis, and anhidrosis

Q62. Zygoma fractures are typically classified using which classification system in clinical practice?

- (A) Rowe and Killey classification



- (B) Knight and North classification
- (C) Lindqvist classification
- (D) Spiessl classification

Q63. A depressed zygomatic arch fracture without involvement of the zygomaticofrontal, zygomaticotemporal, or ZMB sutures is reduced using which approach?

- (A) Coronal approach with rigid fixation
- (B) Transconjunctival approach with Tessier hook
- (C) Preauricular approach and direct plating
- (D) Gillies temporal approach – a hook passed deep to the temporalis fascia under the arch to elevate it

Q64. Markowitz classification of NOE fractures is based on:

- (A) The degree of comminution of the frontal process of the maxilla
- (B) The presence or absence of associated orbital floor fracture
- (C) The status of the medial canthal tendon attachment to the central bone fragment
- (D) The degree of nasal septal deviation

Jaw Cysts (Q65–Q74)

Q65. Before incising a jaw cyst, aspiration of its contents is important for all of the following reasons EXCEPT:

- (A) To establish the nature of the lesion (fluid, blood, air)
- (B) To prevent accidental incision into a haemangioma or vascular lesion
- (C) To confirm the lesion is a cyst (fluid) rather than a solid tumour
- (D) To provide immediate definitive treatment of the cyst



- Q66.** A unicystic ameloblastoma radiographically appears identical to a dentigerous cyst. Which investigation is essential to differentiate them definitively?
- (A) Incisional biopsy with histopathological examination
 - (B) CBCT to assess cortical expansion
 - (C) Aspiration cytology of the cyst fluid
 - (D) Bone scintigraphy to assess growth rate
- Q67.** When aspirating a central giant cell lesion (CGCL) of the jaw, the aspirate is characteristically:
- (A) Straw-coloured fluid with cholesterol crystals
 - (B) Frank blood (as in aneurysmal bone cyst)
 - (C) Blood-tinged or no fluid (not frank blood as in ABC)
 - (D) Keratin flakes and desquamated epithelial cells
- Q68.** The recurrence rate of odontogenic keratocyst (OKC) at 5 years following simple enucleation is reported as:
- (A) 25–60%
 - (B) Less than 5%
 - (C) 5–10%
 - (D) Greater than 80%
- Q69.** In Gorlin-Goltz syndrome (nevoid basal cell carcinoma syndrome), pathological calcifications are typically found in which intracranial structure?
- (A) Choroid plexus
 - (B) Pineal gland
 - (C) Falx cerebri (lamellar calcification)



(D) Caudate nucleus

Q70. Bifid ribs are a recognised skeletal feature of Gorlin-Goltz syndrome. Which other rib anomaly is also described in this syndrome?

(A) Splayed or fused ribs

(B) Cervical ribs

(C) Hypoplastic first rib

(D) Prominent sternal ribs

Q71. A primordial cyst develops from:

(A) Reduced enamel epithelium around a formed crown

(B) Remnants of the dental lamina after tooth formation

(C) Epithelial rests of Malassez in the periodontal ligament

(D) Degeneration of the enamel organ before any calcification of dental tissues begins

Q72. The inflammatory paradental (mandibular infected buccal) cyst arises in relation to the mandibular third molar characteristically on which surface?

(A) Lingual surface at the cemento-enamel junction

(B) Buccal surface at the cervical margin, associated with pericoronitis

(C) Distal surface at the root apex

(D) Mesial surface in the interradicular region

Q73. Palmar and plantar pitting (small, dyskeratotic depressions in the skin) is a dermatological feature of:

(A) Gardner syndrome

(B) Cowden syndrome



- (C) Gorlin-Goltz syndrome (nevoid BCC syndrome)
- (D) Multiple endocrine neoplasia type 2B (MEN 2B)

Q74. The most appropriate management of an OKC in a patient with Gorlin-Goltz syndrome differs from isolated OKC because:

- (A) Gorlin-Goltz OKCs are not associated with the PTCH1 gene and respond better to marsupialization
- (B) Radiation therapy is preferred to avoid surgical morbidity
- (C) More aggressive surgery (peripheral ostectomy, chemical curettage with Carnoy's solution) is favoured because of high multiplicity and recurrence risk; lifelong follow-up with dermatology and oncology is mandatory
- (D) The OKCs in Gorlin-Goltz syndrome are lined by stratified squamous non-parakeratinised epithelium

Odontogenic Tumours (Q75–Q82)

Q75. Central giant cell granuloma (CGCG) of the jaw differs from giant cell tumour of long bones (GCT) in all of the following ways EXCEPT:

- (A) Both lesions are benign and do not metastasize (CGCG never metastasizes; GCT rarely does)
- (B) CGCG affects younger patients (often under 30), while GCT peaks in 20–40 years
- (C) CGCG is more common in the mandible; GCT occurs in long bones at epiphysis
- (D) GCT has true giant cells that are evenly distributed throughout the stroma

Q76. Intralesional corticosteroid injections in aggressive CGCG are given:

- (A) As a single injection of triamcinolone 10 mg into the centre of the lesion
- (B) As a single high-dose depot methylprednisolone injection monthly



- (C) Weekly injections of hydrocortisone for 4 weeks
- (D) As multiple injections of triamcinolone acetonide (10 mg/mL with local anaesthetic), once weekly for 6 weeks

Q77. A patient with CGCG has persistently elevated serum calcium and parathyroid hormone levels. The jaw lesion most likely represents:

- (A) Primary aggressive CGCG with secondary paraneoplastic hypercalcaemia
- (B) Brown tumour of hyperparathyroidism (which is histologically identical to CGCG but caused by HPT)
- (C) Cherubism with secondary calcium regulation abnormality
- (D) Multiple myeloma deposits causing bone resorption and hypercalcaemia

Q78. Langerhans cell histiocytosis (eosinophilic granuloma) involving the jaw shows which characteristic radiographic feature?

- (A) Root resorption of adjacent teeth without bone loss
- (B) Ground-glass opacity with cortical expansion
- (C) Punched-out radiolucency producing “floating teeth” appearance due to alveolar bone destruction
- (D) Diffuse sclerosis with loss of trabecular pattern

Q79. Ghost cell odontogenic carcinoma (GCOC) is best described as:

- (A) A benign tumour arising from reduced enamel epithelium in the follicular space
- (B) The intraosseous variant of calcifying epithelial odontogenic tumour (CEOT)
- (C) A glandular variant of ameloblastoma containing mucous cells
- (D) The malignant counterpart of calcifying cystic odontogenic tumour (CCOT), characterised by ghost cells and aggressive behaviour

Q80. Intraosseous mucoepidermoid carcinoma of the jaw is believed to arise from:



- (A) Peripheral salivary gland extensions growing into the mandibular canal
- (B) Mucous cells or entrapped salivary gland tissue within the jaw bone
- (C) Metaplastic change in the lining of a dentigerous cyst
- (D) Direct extension of parotid mucoepidermoid carcinoma through the ramus

Q81. The component of Gorlin-Goltz syndrome that is managed by a maxillo-facial surgeon in addition to OKCs is:

- (A) Meningiomas and cerebellar medulloblastomas
- (B) Calcifying odontogenic cysts (Gorlin cysts)
- (C) Multiple basal cell carcinomas (BCCs) of the skin, coordinated with dermatology
- (D) Ossifying fibromas and juvenile aggressive ossifying fibromas

Q82. Parotid gland mucoepidermoid carcinoma invading the ascending ramus of the mandible is best managed by:

- (A) Radiation therapy alone to avoid morbidity of resection
- (B) Chemotherapy followed by reassessment
- (C) Composite resection including total parotidectomy and segmental mandibulectomy, with facial nerve preservation if possible, followed by adjuvant radiotherapy
- (D) Curettage of the mandibular invasion combined with superficial parotidectomy

TMJ Disorders (Q83–Q90)

Q83. The central (intermediate) zone of the TMJ articular disc is characterised by which of the following?

- (A) Avascular and aneural fibrocartilage that acts as the load-bearing area



- (B) Rich vascularity and sensory innervation for proprioception
- (C) Hyaline cartilage similar to other synovial joints
- (D) Dense Type I collagen with calcification in adults

Q84. The bilaminar (retrodiscal) tissue of the TMJ is important because:

- (A) It prevents excessive protrusion of the condyle during opening
- (B) It provides the primary ligamentous support of the medial TMJ capsule
- (C) It synthesises most of the synovial fluid for joint lubrication
- (D) Its elastic superior stratum retracts the disc posteriorly during mouth closure, enabling disc recapture

Q85. The normal maximum mouth opening (interincisal distance) in adults is considered to be:

- (A) 25–30 mm
- (B) 40–50 mm
- (C) 55–60 mm
- (D) 60–70 mm

Q86. A clicking sound on mouth opening followed by a clicking sound on closing (reciprocal click) in a TMJ is diagnostic of:

- (A) Osteoarthritis of the condyle
- (B) Complete disc displacement without reduction (closed lock)
- (C) Disc displacement with reduction
- (D) Condylar hypermobility (subluxation)

Q87. Radiographic findings in established TMJ osteoarthrosis include all of the following EXCEPT:

- (A) Widening of the joint space (the space is narrowed in OA)



- (B) Subchondral sclerosis of the condylar head
- (C) Osteophyte formation at the anterior margin of the condyle
- (D) Flattening of the condylar head

Q88. The orthopantomogram (OPG) is of limited value in diagnosing internal derangement of the TMJ because:

- (A) It exposes the patient to unacceptably high radiation for a TMJ view
- (B) The disc is soft tissue and not visible on plain radiographs; only bony changes can be seen
- (C) The angle of projection superimposes the condyle on the glenoid fossa
- (D) The image intensifier blurs TMJ detail in most OPG machines

Q89. On MRI of the TMJ, a biconvex disc morphology (rather than the normal biconcave shape) indicates:

- (A) Normal variant present in 20% of the population
- (B) Disc perforation requiring immediate surgical repair
- (C) Normal posterior band thickening visible only on T2-weighted images
- (D) Disc deformity (thickening), often associated with disc displacement and degeneration

Q90. Lateral pterygoid muscle hyperactivity (superior head) is implicated in TMJ disc displacement because:

- (A) It pulls the disc medially, causing medial disc displacement
- (B) It compresses the retrodiscal tissue, preventing disc recapture
- (C) Its attachment to the anterior band of the disc and condylar neck causes anterior disc displacement when in spasm
- (D) It elevates the condyle into the glenoid fossa, increasing intrajoint pressure



Orthognathic Surgery (Q91–Q95)

- Q91.** The sagittal split ramus osteotomy (SSRO/BSSRO) as originally described by Obwegeser passes through three critical points. The Dal Pont modification extended the osteotomy to improve the procedure by:
- (A) Adding a vertical cut at the condylar neck for additional correction
 - (B) Extending the lingual cut anteriorly to the mandibular foramen for nerve safety
 - (C) Replacing the bur with a piezoelectric saw to prevent nerve injury
 - (D) Extending the buccal cut anteriorly to the level of the first or second premolar, increasing bone contact
- Q92.** Preservation of the inferior alveolar nerve during BSSRO depends on ensuring the nerve remains in:
- (A) The proximal (condyle-bearing) segment, allowing the distal tooth-bearing segment to move freely
 - (B) The distal segment, as the nerve exits via the mental foramen
 - (C) The bony gap between segments, where it is protected by haematoma
 - (D) Either segment; nerve position does not influence technique
- Q93.** The most common cause of skeletal relapse following orthognathic surgery is:
- (A) Plate and screw loosening within 3 months
 - (B) Tongue pressure and condylar torque (seating) leading to progressive positional change
 - (C) Bone resorption at the osteotomy sites
 - (D) Failure of the orthodontist to achieve adequate dental decompensation preoperatively



- Q94.** Rigid internal fixation (RIF) using bicortical screws or miniplates in BSSRO is preferred over wire osteosynthesis because:
- (A) Wire osteosynthesis requires longer intermaxillary fixation (IMF), causing more temporomandibular joint stiffness
 - (B) RIF allows immediate mobilisation, reducing relapse from periosteal pull
 - (C) RIF provides three-dimensional stability, significantly reducing post-surgical relapse rates compared to wire fixation
 - (D) Wires cut through the cortex and cause non-union at the osteotomy site
- Q95.** Which orthognathic procedure is used to correct vertical maxillary excess (long face syndrome/gummy smile) by repositioning the maxilla superiorly?
- (A) Le Fort I osteotomy with downward impaction
 - (B) Le Fort II osteotomy with rotation
 - (C) BSSRO advancement
 - (D) Le Fort I osteotomy with superior impaction (moving the maxilla upward)

Preprosthetic Surgery & Medical Emergencies (Q96–Q100)

- Q96.** Early (primary) implant failure, occurring before osseointegration is established (within the first weeks), is most commonly caused by:
- (A) Peri-implantitis from plaque accumulation
 - (B) Inadequate primary stability, overheating during drilling, or uncontrolled systemic disease
 - (C) Occlusal overload from an ill-fitting crown placed at 6 months
 - (D) Titanium allergy manifesting as early rejection



- Q97.** The management of peri-implantitis (established bone loss around an osseointegrated implant) includes all of the following EXCEPT:
- (A) Mechanical debridement of the implant surface
 - (B) Local delivery of antibiotics (minocycline microspheres)
 - (C) Surgical access for debridement and bone grafting in advanced cases
 - (D) Immediate implant removal as the first-line treatment for any peri-implantitis
- Q98.** Resorbable membranes used in guided bone regeneration (GBR) differ from non-resorbable membranes (e.g., ePTFE) in that:
- (A) Resorbable membranes do not require a second surgery for removal, but provide less space maintenance than non-resorbable types
 - (B) Resorbable membranes promote faster osseointegration of the implant surface
 - (C) Non-resorbable membranes are always associated with higher infection rates
 - (D) Resorbable membranes have superior tensile strength allowing them to withstand greater compressive forces
- Q99.** A patient suddenly becomes pale, diaphoretic, and unresponsive in the dental chair after a routine injection. The pulse is slow and weak. The most appropriate immediate positioning is:
- (A) Upright (sitting) to prevent aspiration
 - (B) Supine with legs elevated (Trendelenburg position) to improve venous return to the brain
 - (C) Recovery (lateral) position with oxygen by face mask
 - (D) Semi-reclined at 45 degrees to maintain airway
- Q100.** A patient scheduled for dental extraction discloses a latex allergy confirmed by skin-prick test. Which of the following protocols is correct?



- (A) Proceed normally; dental gloves contain minimal latex and are safe for most patients
- (B) Pre-medicate with antihistamines and hydrocortisone 1 hour before and proceed with standard gloves
- (C) Use latex-free gloves, non-latex rubber dam, and latex-free equipment throughout; schedule as first case of day if possible
- (D) Refer to allergy specialist and postpone all dental treatment indefinitely



Answer Key

NEET MDS – Oral and Maxillofacial Surgery – Sample Paper 7

Answer Key (Q1–Q100)



Detailed Solutions

NEET MDS – Oral and Maxillofacial Surgery – Sample Paper 7

Section: Oral and Maxillofacial Surgery (Q1–Q100)

Third Molar Impaction (Q1–Q15)

Answer: (D) **Pericoronitis** is defined as inflammation of the soft tissue (operculum) overlying a partially erupted tooth, most commonly the mandibular third molar. The clinical triad is pain, swelling, and trismus. The operculum traps food and bacteria, leading to infection of the pericoronal space. Dentoalveolar abscess (A) arises from pulpal infection. Periapical periodontitis (B) involves the periapex. Acute suppurative sialadenitis (C) involves the parotid or submandibular gland and is associated with reduced salivary flow, not a visible operculum. [Go Back to Q1](#)

Answer: (B) NICE guideline TA1 (2000, updated) recommends against prophylactic removal of impacted third molars in asymptomatic patients without pathology. Surgical removal is advised only in the presence of **evidence of pathology**: recurrent or acute pericoronitis (two or more episodes in one year), non-restorable dental caries, cyst formation, internal or external root resorption of adjacent teeth, or tooth in the line of a fracture. Options A, C, and D represent inappropriate indications under the NICE framework. [Go Back to Q2](#)

Answer: (A) Space assessment for the mandibular third molar is based on the **Winter's space analysis**: the distance from the distal surface of the second molar to the anterior border of the ascending ramus at the occlusal plane level. If this distance is less than the mesiodistal width of the third molar crown, impaction is likely. Other landmarks listed are not used for this specific assessment. [Go Back to Q3](#)

Answer: (D) **Darkening of the root** (loss of the white cortical line of the inferior alveolar canal where it overlies the root) on OPG is the most significant sign indicating intimate contact between the root apex and the IAN. Other high-risk signs include diversion, narrowing, bifid root, and interruption of the white lines. Increased radiopacity (B) is not a recognised high-risk sign. Widening of the PDL (C) is unrelated to IAN canal proximity. [Go Back to Q4](#)

Answer: (A) **Coronectomy** is indicated when CBCT confirms that the root apices are in direct contact with or penetrating the IAN canal, placing the nerve at unacceptable risk of permanent injury from full extraction. The retained roots gradually migrate away from the nerve over months to years. It is contraindicated in the presence of infection (as infected roots must be fully removed). Options B, C, and D are not indications for coronectomy. [Go Back to Q5](#)

Answer: (C) The literature consistently reports the incidence of **permanent IAN paraes-**



thesia at 0.4–8% following lower third molar extraction, with most series quoting around 0.4–1% for permanent deficit. Temporary paraesthesia is far more common. 10–15% (B) and 20–30% (D) are far too high. Less than 0.1% (A) underestimates the risk cited in systematic reviews. [Go Back to Q6](#)

Answer: (D) The lingual nerve is at variable risk during third molar surgery. Studies report a range of 0–23% depending on technique. When a lingual flap is reflected and a lingual retractor used, the risk is significantly higher. Most temporary deficits resolve within 6 months. Permanent lingual nerve injury occurs in approximately 0–2% of cases. Options A–C do not capture the full reported range. [Go Back to Q7](#)

Answer: (D) Conservative management of altered sensation post-third molar extraction includes **neurotrophic supplementation**: thiamine (B1), pyridoxine (B6), cyanocobalamin (B12), and alpha-lipoic acid (an antioxidant shown to support nerve regeneration). **Long-term systemic corticosteroids are NOT recommended** because they do not improve nerve recovery and carry significant systemic side effects with prolonged use. Short-term steroids in the immediate post-operative period (24–48 h) may be used to reduce oedema. [Go Back to Q8](#)

Answer: (B) The prevalence of maxillary canine impaction is approximately 1–3% of the general population, making it the second most commonly impacted tooth after the mandibular third molar. The higher estimate (5–8%, option C) is sometimes cited in specific ethnic populations but is not the standard figure. [Go Back to Q9](#)

Answer: (C) Approximately 85% of impacted maxillary canines are found in a **palatal position**. The remaining approximately 15% are buccally positioned. Management differs: palatally impacted canines are more commonly treated with surgical exposure and orthodontic traction, while buccal canines may have a better spontaneous eruption prognosis following extraction of primary canines. [Go Back to Q10](#)

Answer: (B) Ectopic eruption of the maxillary first permanent molar causes **resorption of the distal root of the maxillary second primary molar** as the first permanent molar erupts at an angle and impacts against the root of the primary molar. This is discovered on bitewing radiographs showing resorption of the distal root of the second primary molar. A Halterman appliance or brass wire separation is used to manage this condition. [Go Back to Q11](#)

Answer: (B) An ankylosed deciduous molar is identified clinically by **infraocclusion** (the tooth sits below the occlusal plane because it cannot follow dentoalveolar growth) and a **dull, solid percussion sound** (because the normal PDL is replaced by bone, transmitting sound differently). Increased mobility (A) would indicate periodontal disease. Widened PDL (C) indicates the opposite of ankylosis. [Go Back to Q12](#)

Answer: (D) A moderately submerged ankylosed deciduous molar with no permanent successor, causing tipping of adjacent teeth, requires **surgical removal** to prevent further alveolar bone deficiency, space loss, and tipping of neighbouring teeth. Simple observation



(A) is appropriate only for mild infraocclusion with a successor tooth present. Orthodontic extrusion (B) is not feasible due to ankylosis. Space maintenance with implant planning should follow. [Go Back to Q13](#)

Answer: (A) The **Nance holding arch** (Nance appliance) is a passive upper arch space maintainer that contacts the anterior palate with an acrylic button, preventing forward migration of the upper molars after premature loss of primary molars. It is not used for arch expansion (C), retraction (B), or lower arch maintenance (D). [Go Back to Q14](#)

Answer: (A) In the maxilla, **transposition most commonly involves the canine and first premolar**, where the canine occupies the premolar position and vice versa. The second most common transposition is between the canine and lateral incisor (C), but statistically the canine-premolar transposition is more frequent. Treatment requires complex orthodontic management or acceptance of the transposition. [Go Back to Q15](#)

Exodontia (Q16–Q25)

Answer: (B) The **Coupland elevator** (straight elevator) is placed **buccally** in the periodontal space between the alveolar bone and the root, and advanced apically using a **lever action** with the alveolar crest as the fulcrum, luxating the tooth. It does not use a rotational motion (which is the Cryer's action) nor is it used interradicularly. [Go Back to Q16](#)

Answer: (C) The **Cryer elevator** (angular/cross-bar elevator) has a paired design (right and left). The blade is placed **into the interradicular socket** after one root is removed, and a **rotational (angular) motion** is used to lever out the remaining root using the inter-radicular bone as the fulcrum. This is distinct from the straight lever action of the Coupland elevator. [Go Back to Q17](#)

Answer: (A) In diabetic patients, **hyperglycaemia impairs neutrophil chemotaxis, phagocytosis, and angiogenesis**, leading to delayed wound healing. Collagen synthesis is also impaired. This is not due to insulin suppressing wound factors (B) or increased fibrinolysis (C). Mandibular vascularity per se is not reduced in diabetes (D). [Go Back to Q18](#)

Answer: (C) **Whitehead's varnish** (Bipp: bismuth iodoform paraffin paste applied to ribbon gauze) provides **mechanical haemostasis by pressure** on the socket and **protects the clot** while releasing antiseptic (iodoform). It does not contain vasoconstrictors (A), coagulation factors (D), or agents promoting platelet aggregation specifically (B). It is particularly useful in haemophilia patients when primary haemostasis must be maintained mechanically. [Go Back to Q19](#)

Answer: (D) **Bone wax** controls bleeding from cancellous bone by **mechanical tamponade** – filling the vascular channels physically. It does not activate coagulation (A), stimulate osteogenesis (B), or release thrombin (C). Its disadvantage is that it is non-resorbable and can impair bone healing and act as a nidus for infection. [Go Back to Q20](#)



Answer: (A) The lingual nerve runs extremely close to the lingual plate of the lower third molar region. Reflecting a **lingual mucoperiosteal flap and inserting a lingual retractor** compresses or stretches the nerve, which is the most common cause of lingual nerve injury during this procedure. The nerve is not at risk from the IANB (C) or from Warwick-James use (D) if done carefully. [Go Back to Q21](#)

Answer: (A) **Surgical emphysema** (subcutaneous/tissue emphysema) following dental extraction is most commonly caused by **air driven from an air-turbine handpiece** being forced into the tissue planes during bone removal. It can spread along fascial planes, causing extensive crepitant swelling. It is not due to gas-producing organisms (B), which cause gas gangrene – a different emergency. [Go Back to Q22](#)

Answer: (C) Acute TMJ dislocation (condyle locked anterior to the articular eminence) is managed by **manual reduction**: the operator places gloved thumbs on the lower molar teeth, exerts **downward and backward pressure** while supporting the chin upward with the fingers, guiding the condyle back over the eminence into the glenoid fossa. ORIF (A) is not indicated for simple dislocation. A Barton bandage (D) may be applied post-reduction for support, not as primary treatment. [Go Back to Q23](#)

Answer: (A) The incidence of alveolar osteitis after mandibular **third molar extraction** is approximately **20–30%**, significantly higher than for other teeth (2–4%). Risk factors include smoking, oral contraceptives, excessive irrigation of the socket, and poor blood supply from sutured sockets. The incidence after routine extractions of other teeth is approximately 2–4% (B). [Go Back to Q24](#)

Answer: (B) Alvogyl (Septodont) dressing contains **butamben** (a local anaesthetic for pain relief), **eugenol** (anti-inflammatory and analgesic), and **iodoform** (antiseptic). It is applied into the dry socket to soothe the exposed bone and manage the condition. It is not a curative treatment but provides symptomatic relief until normal healing resumes. [Go Back to Q25](#)

Local Anaesthesia (Q26–Q40)

Answer: (B) Progressive trismus without swelling or systemic signs following IANB is characteristic of **haematoma in the medial pterygoid muscle**, caused by inadvertent puncture of the pterygoid venous plexus or inferior alveolar vessels. The haematoma causes muscle irritation and fibrosis-related trismus. True infection (A) would present with fever and systemic signs within 48–72 hours. Allergic reactions (C) present acutely. [Go Back to Q26](#)

Answer: (C) The infraorbital nerve block targets the infraorbital foramen; if solution is deposited too deeply or if retrograde spread occurs, it may reach the **inferior orbital fissure and affect the motor branches to the extraocular muscles, causing diplopia**. This complication is specific to the infraorbital block and does not occur with IANB. Haematoma



(A) can occur with any injection. [Go Back to Q27](#)

Answer: (D) The PSA nerve block requires needle insertion behind and superior to the maxillary tuberosity, adjacent to the **pterygoid venous plexus**. Puncture of this plexus causes immediate haematoma with visible swelling of the cheek and infratemporal fossa. This is the most common serious complication of the PSA block. The swelling appears immediately (ruling out delayed infection A). [Go Back to Q28](#)

Answer: (A) For **LAST with cardiovascular collapse**, the AAGBI and ACLS guidelines recommend immediate **IV lipid emulsion (Intralipid 20%) at 1.5 ml/kg bolus** followed by an infusion. The “lipid sink” mechanism extracts the lipophilic LA from cardiac tissue. Adrenaline (B) is used cautiously and at reduced doses in LAST (not as primary treatment). Sodium bicarbonate (C) and calcium (D) may be adjuncts but lipid emulsion is first-line. [Go Back to Q29](#)

Answer: (C) True allergy to amide local anaesthetics is extremely rare. The most common allergic reactions attributed to amide LAs are actually caused by **methylparaben**, a preservative used in multi-dose vials that is structurally related to PABA. Single-dose cartridges (used in dentistry) typically contain no methylparaben. Sodium metabisulphite (B) is the antioxidant for the vasoconstrictor and can cause sensitivity in sulphite-allergic patients. [Go Back to Q30](#)

Answer: (D) Ester local anaesthetics (procaine, benzocaine, tetracaine) are hydrolysed to **para-aminobenzoic acid (PABA)**, which is the principal allergenic metabolite. PABA cross-reacts with sulfonamides and methylparaben. This is why patients allergic to ester LAs should be given amide LAs instead. The reaction is primarily IgE-mediated to the PABA hapten complex, not to the ester nucleus per se. [Go Back to Q31](#)

Answer: (B) Adding sodium bicarbonate to a LA solution **raises the pH** closer to physiological pH (7.4). At higher pH, more of the LA exists in the **uncharged free-base form**, which diffuses across nerve membranes more rapidly. The injection is also less painful because it reduces the acidity of the solution. It does not extend duration (A) and does not potentiate vasoconstrictors (C). [Go Back to Q32](#)

Answer: (B) The Wand (CCLAD) system reduces injection pain primarily through **computer-controlled, constant-rate delivery** of the anaesthetic solution at a rate slow enough to prevent distension of tissues and pressure-related pain. The patient perceives less pain because tissue distension (caused by fast manual injection) is minimised. Needle gauge is similar to conventional (A), and heating is not a primary feature (C). [Go Back to Q33](#)

Answer: (A) The **Quicksleeper** is an intraosseous injection system that drives a rotating needle through the **cortical plate into the cancellous bone** adjacent to the target tooth. Anaesthetic is delivered directly into the marrow space, achieving rapid onset in both hard and soft tissues. This is distinct from periodontal ligament injection (B) or subperiosteal injection (C). [Go Back to Q34](#)



Answer: (D) The IANB anaesthetises the inferior alveolar nerve, which supplies the mandibular teeth, labial gingiva anterior to mental foramen, and **the skin and mucosa of the lower lip and chin (mental nerve distribution)**. This cutaneous anaesthesia of the lower lip/chin is unique to IANB and has no equivalent in the maxillary nerve block territory. The mental distribution to skin is the defining feature that differentiates IAN anaesthesia. [Go Back to Q35](#)

Answer: (D) The most common reason for IANB failure is **incorrect identification of anatomical landmarks**, resulting in deposition of the anaesthetic solution too anteriorly (over the medial pterygoid muscle rather than adjacent to the nerve) or too inferiorly. Other causes include anatomical variation, accessory nerve supply, and infection-related pH change. Bifid canal (C) is a real but uncommon cause. [Go Back to Q36](#)

Answer: (A) In the **Akinosi (closed-mouth) technique**, the needle is inserted through the buccal mucosa adjacent to the maxillary tuberosity, **parallel to the occlusal plane** (not angled downward), and directed posteriorly into the pterygomandibular space. It is ideal for patients with limited mouth opening (trismus) because it does not require wide opening. This differs from the conventional IANB which requires the mouth to be wide open. [Go Back to Q37](#)

Answer: (D) The **Gow-Gates technique** targets the mandibular nerve at the **neck of the condyle**, proximal to where all branches of the mandibular division diverge. This makes it a true mandibular nerve block, anaesthetising all branches (IAN, lingual, buccal, auriculotemporal, mylohyoid). It has a lower failure rate but requires longer onset (5–10 min) and wider mouth opening. The mandibular foramen (A) is the target for conventional IANB. [Go Back to Q38](#)

Answer: (B) After an effective IANB, mandibular incisors sometimes remain sensitive because the **incisive branch of the contralateral mental nerve crosses the midline** within the symphysis to supply the mesial pulps of the lower incisors on the ipsilateral side. Supplemental infiltration in the labial sulcus of the lower incisors or a bilateral IANB addresses this. The mylohyoid nerve (C) is relevant for accessory supply to lower molars. [Go Back to Q39](#)

Answer: (C) The maximum recommended dose of **lidocaine with adrenaline** is **7 mg/kg up to a maximum of 500 mg** for a healthy adult. For plain lidocaine (without vasoconstrictor), the limit is lower (4.4 mg/kg up to 300 mg). The addition of adrenaline reduces systemic absorption, allowing the higher dose. Dental cartridges contain 2.2 mL of 2% lidocaine (44 mg each); a 70 kg patient can receive up to approximately 11 cartridges. [Go Back to Q40](#)

Orofacial Infections (Q41–Q52)

Answer: (D) The canine (infraorbital) space infection causes swelling in the cheek below the medial canthus, **obliteration of the nasolabial fold**, and elevation of the ala of the nose.



The boundary muscles (levator anguli oris and levator labii superioris) direct the swelling into the medial cheek area. Trismus (C) is not a feature because the masseter is not involved. Spread is not typically to the masticator space directly. [Go Back to Q41](#)

Answer: (B) The **superficial temporal space** lies between the **temporalis fascia (temporal fascia)** and the **superficial surface of the temporalis muscle**. The deep temporal space lies between the temporalis muscle and the temporal bone. Infection can spread between these compartments and is difficult to drain because the fascia is tough. The zygomatic arch (C) is an anatomical boundary but not the defining interface. [Go Back to Q42](#)

Answer: (D) Severe odontogenic infection from lower molars spreads: buccal space → masticator space → infratemporal fossa → through the foramen ovale or skull base foramina → **middle cranial fossa**, causing cavernous sinus thrombosis or brain abscess. Option A (submasseteric → mediastinum) is the path for descending mediastinitis via the retropharyngeal space. The direct intracranial route from the infratemporal route via option D is classically described. [Go Back to Q43](#)

Answer: (C) Lemierre syndrome requires **prolonged intravenous antibiotics targeting anaerobes** (particularly *Fusobacterium necrophorum*): a beta-lactam plus metronidazole is standard, or clindamycin or meropenem based on sensitivity. **Anticoagulation remains controversial** – some centres use it for persistent thrombus extension, but there is no RCT evidence. Vancomycin alone (B) does not cover anaerobes. Oral amoxicillin-clavulanate (A) is insufficient for this severity. [Go Back to Q44](#)

Answer: (C) Clindamycin is a **lincosamide antibiotic** that binds the **50S ribosomal subunit** and inhibits the **peptidyl transferase** step of protein synthesis, preventing transpeptidation. It is bacteriostatic at low concentrations and bactericidal at high concentrations. It is particularly effective against anaerobes and Gram-positive cocci. It does not inhibit cell wall synthesis (A) or DNA gyrase (D). [Go Back to Q45](#)

Answer: (B) Metronidazole is a prodrug. In **anaerobic organisms**, ferredoxin (an electron transport protein) **reduces the nitro group** of metronidazole to produce **cytotoxic free radical species** that break bacterial DNA strands, leading to cell death. In aerobic cells, this reduction does not occur, making metronidazole selective for anaerobes and microaerophilic organisms (e.g., *H. pylori*, *Giardia*). [Go Back to Q46](#)

Answer: (D) **Vancomycin** is the drug of choice for MRSA infections requiring IV treatment. MRSA is resistant to all beta-lactams (including amoxicillin-clavulanate, B). Clindamycin (A) may be used if the isolate is sensitive (inducible resistance must be excluded by D-zone test), but vancomycin is first-line for serious MRSA infections. Daptomycin and linezolid are alternatives. [Go Back to Q47](#)

Answer: (B) **Aminoglycosides** (gentamicin, tobramycin, amikacin) are associated with **cochleotoxicity** (damage to the hair cells of the cochlea causing sensorineural hearing loss) and **nephrotoxicity**. Serum drug levels and renal function must be monitored during use.



Vancomycin (C) is also nephrotoxic but has less cochleotoxicity. Fluoroquinolones (D) and carbapenems (A) do not cause these specific toxicities. [Go Back to Q48](#)

Answer: (C) **Source control** is a surgical principle referring to the **physical elimination of the source of infection** – by draining pus collections and removing or treating the causative tooth. Antibiotics alone are ineffective when pus is present (no vascularity in an abscess cavity). Source control combined with antibiotics is the standard of care for severe odontogenic infections. [Go Back to Q49](#)

Answer: (A) **Ludwig's angina** classically involves the **sublingual, submental, and sub-mandibular spaces bilaterally**. The infection typically originates from the mandibular second or third molar (below mylohyoid). It is characterised by bilateral firm ("woody") sub-mandibular swelling, elevation and displacement of the tongue posteriorly, drooling, and airway compromise. It is a life-threatening emergency. [Go Back to Q50](#)

Answer: (B) In Ludwig's angina with a deteriorating airway, the **first priority is securing the airway**. **Awake fiberoptic intubation** is preferred as the tongue elevation and swelling make conventional laryngoscopy hazardous. If FOI is impossible, a **surgical airway (tracheostomy)** is life-saving. CT scanning (A) must never delay airway management. Steroids (D) are adjuncts and cannot substitute for airway control. [Go Back to Q51](#)

Answer: (D) Cervicofacial actinomycosis presents as a **chronic, indurated (board-hard) swelling with multiple draining sinuses**. The pus characteristically contains "**sulphur granules**" (yellow colonies of *Actinomyces israelii*). It is a bacterial infection (not fungal, C) and occurs in immunocompetent individuals (B). Treatment is **prolonged penicillin** (4–12 weeks IV then oral). It progresses slowly, not rapidly (A). [Go Back to Q52](#)

Maxillofacial Fractures (Q53–Q64)

Answer: (C) In edentulous patients, teeth are absent so arch bars cannot be applied. **Gunning splints** are prosthetic devices moulded to the edentulous ridges (or the patient's existing dentures adapted) that are wired to the jaws using **circumzygomatic wires** (upper jaw) and **circummandibular wires** (lower jaw), providing IMF. Ivy loops and Ernst ligatures require teeth for attachment (A, B, D). [Go Back to Q53](#)

Answer: (A) In children, condylar fractures have excellent remodelling potential. **Conservative management** (soft diet, analgesics, mouth-opening exercises, physiotherapy) is first-line for paediatric condylar fractures without significant displacement or malocclusion. IMF for 2 weeks maximum may be used if needed but is avoided due to risk of ankylosis. ORIF (B) is rarely indicated in children and risks growth disturbance and condyle damage. [Go Back to Q54](#)

Answer: (B) In panfacial fractures, the **mandible is repaired first** to establish a stable occlusal platform and correct facial height. Then the midface (zygoma, maxilla) is built upward from this stable base, and finally the upper third (frontal sinus, NOE, supraorbital). This



“bottom-up” sequence (after initial frontal stabilisation if needed) allows accurate restoration of occlusion and facial projection. [Go Back to Q55](#)

Answer: (C) The **zygomaticomaxillary buttress** (vertical buttress at the zygomaticomaxillary junction) is a key **load-bearing strut** that transmits masticatory (bite) forces from the upper molars through the zygomatic bone to the cranial base. In Le Fort I and ZMC fractures, restoration of this buttress is critical for functional loading and facial width. It does not form the orbital roof (A) or connect to pterygoids (B). [Go Back to Q56](#)

Answer: (A) NOE fractures involve comminution of the nasal-orbital-ethmoid complex. The characteristic finding is **telecanthus** – increased intercanthal distance (normal less than 35 mm) due to disruption and lateral displacement of the **medial canthal tendon** attachment. This does not occur with orbital floor blowouts alone or with other midface fractures. CSF rhinorrhoea may also occur. Raccoon eyes (C) occur in multiple fractures. [Go Back to Q57](#)

Answer: (D) Posterior table of the frontal sinus forms the anterior cranial fossa floor. When fractured, there is risk of **CSF rhinorrhoea, meningitis, cerebral abscess, and mucocele formation** (from mucosa growing intracranially). Management requires **cranialization** (remove posterior table, obliterate sinus mucosa, separate frontal lobe from sinus) or sinus obliteration with fat. Anterior table fractures are managed cosmetically (elevation and plating). [Go Back to Q58](#)

Answer: (D) The **coronal (bicoronal) incision** runs **from ear to ear across the top of the skull** (within the hairline), allowing the scalp to be reflected downward as a single flap to expose the entire upper third of the face, the zygomatic arches, and the upper midface. It provides excellent access for frontal sinus, NOE, zygoma, and orbital fractures. The mental to mastoid incision (A) does not exist as a standard approach. [Go Back to Q59](#)

Answer: (A) The **subciliary incision** is placed **2 mm below the lower eyelid lash line**, running horizontally in a natural skin crease. It provides excellent access to the orbital rim and floor. It differs from the transconjunctival (B) approach (through the conjunctiva, leaving no external scar) and the mid-lid incision (D) placed in the mid-portion of the lid. [Go Back to Q60](#)

Answer: (B) The classic triad of pure orbital floor blowout fracture is: (1) **Enophthalmos** (posterior displacement of the globe from increased orbital volume); (2) **Diplopia on upward gaze** (entrapment of inferior rectus/orbital fat); and (3) **Infraorbital hypoaesthesia** (injury to the infraorbital nerve in the floor). Telecanthus (A) indicates NOE involvement. Proptosis (C) suggests retrobulbar haematoma. [Go Back to Q61](#)

Answer: (B) **Knight and North (1961)** classified zygomatic fractures into 6 types based on the degree and direction of displacement and comminution: Group I (undisplaced), Group II (arch only), Group III (unrotated body), Group IV (medially rotated), Group V (laterally rotated), Group VI (complex). This classification guides surgical planning. Rowe and Killey



(A) classified mid-face fractures broadly. [Go Back to Q62](#)

Answer: (D) An isolated depressed zygomatic arch fracture (Gillies Group II) without other suture disruption is treated by the **Gillies temporal approach**: a small incision is made in the temporal hairline, and an elevator is passed **deep to the temporalis fascia but superficial to the temporalis muscle** (temporal approach), positioning the tip under the arch to elevate it without fixation. No plating is required if the arch is stable after reduction. [Go Back to Q63](#)

Answer: (C) The **Markowitz (1991) classification** of NOE fractures categorises them based on the **status of the central bone fragment bearing the medial canthal tendon**: Type I – single non-comminuted fragment; Type II – comminuted but MCT attachment intact; Type III – MCT avulsed from the comminuted central fragment. This directly guides surgical approach and the need for transnasal canthopexy. [Go Back to Q64](#)

Jaw Cysts (Q65–Q74)

Answer: (D) Aspiration before surgical incision is performed to: confirm the lesion is cystic (fluid = cyst, no aspirate = solid tumour), prevent inadvertent incision into a vascular lesion (haemangioma), and characterise the fluid (straw-coloured = radicular cyst; keratinous = OKC; blood = ABC or haemangioma). It does **NOT provide definitive treatment** (D) – aspiration alone will not cure a jaw cyst; surgical enucleation or marsupialization is required. [Go Back to Q65](#)

Answer: (A) Unicystic ameloblastoma cannot be distinguished from dentigerous cyst on radiographic or clinical grounds alone. The definitive differentiation requires **histopathological examination of a biopsy specimen**. This is why incisional biopsy is mandatory before definitive surgical treatment of any suspected dentigerous cyst, especially in adults. CBCT (B) shows cortical expansion but cannot determine tissue type. [Go Back to Q66](#)

Answer: (C) When aspirating a central giant cell lesion, the aspirate is typically **blood-tinged fluid or minimal aspirate** – not frank, profuse blood as seen in an aneurysmal bone cyst (ABC). ABC produces immediate frank blood on aspiration due to its blood-filled cavernous spaces. CGCL has solid tissue with some vascular sinusoids but is not purely blood-filled. This aspiration finding helps clinically differentiate CGCL from ABC, though biopsy is still needed. [Go Back to Q67](#)

Answer: (A) OKC has a notably high recurrence rate. After **simple enucleation alone**, the 5-year recurrence rate is **25–60%** in various series (mean approximately 30%). This high rate is attributed to the thin, friable lining that tears during removal, leaving epithelial rests, satellite cysts, and extensions into cancellous bone. Adjuncts (Carnoy's solution, peripheral ostectomy) significantly reduce recurrence. [Go Back to Q68](#)

Answer: (C) Gorlin-Goltz syndrome is associated with **lamellar (falx cerebri) calcification**, which is present in approximately 85% of cases and appears early (sometimes in



childhood). This is best seen on skull X-ray or CT. Calcification of the falx cerebri in a young patient should prompt consideration of this syndrome. Choroid plexus calcification (A) is a common normal finding and is not specific to Gorlin-Goltz. [Go Back to Q69](#)

Answer: (A) In addition to bifid ribs, **splayed ribs** (broadened/fused) are described in Gorlin-Goltz syndrome. Other skeletal features include spine anomalies (hemivertebrae, fusion), kyphoscoliosis, short fourth metacarpals, and frontal and biparietal bossing. Cervical ribs (B) are not specifically associated with this syndrome. [Go Back to Q70](#)

Answer: (D) A **primordial cyst** develops from the **degeneration of the enamel organ before any hard tissue (enamel or dentine) is laid down**. The result is a cyst where a tooth never forms. This is conceptually important: the cyst develops in place of a tooth. Most primordial cysts are now classified as OKCs on histopathological grounds. This differs from a dentigerous cyst (A), which forms after crown formation. [Go Back to Q71](#)

Answer: (B) The **inflammatory paradental cyst** (mandibular buccal infected cyst) arises on the **buccal surface at the cervical margin** of the mandibular third molar in association with pericoronitis. Inflammation from the operculum causes epithelial proliferation of the reduced enamel epithelium on the buccal surface, forming a cyst. It is distinct from the dentigerous (follicular) cyst which surrounds the crown superiorly. [Go Back to Q72](#)

Answer: (C) **Palmar and plantar pitting** (small, round, dyskeratotic depressions that appear in early adulthood) are a characteristic dermatological sign of **Gorlin-Goltz syndrome**. They represent incomplete desquamation of the palms and soles. Gardner syndrome (A) is associated with epidermoid cysts and desmoid tumours. Cowden syndrome (B) features trichilemmomas and papillomas. MEN 2B (D) features mucosal neuromas. [Go Back to Q73](#)

Answer: (C) OKCs in Gorlin-Goltz syndrome are multiple, occur early in life, and have the same high intrinsic recurrence tendency as sporadic OKCs. Therefore **more aggressive management** is favoured, including **peripheral ostectomy and/or Carnoy's solution curettage**, rather than enucleation alone. Lifelong multidisciplinary follow-up with dermatology (for BCCs), oncology (for medulloblastoma in childhood), and ophthalmology is essential. OKCs in Gorlin-Goltz are lined by parakeratinised epithelium, the same as sporadic OKC (D is false). [Go Back to Q74](#)

Odontogenic Tumours (Q75–Q82)

Answer: (A) CGCG is distinguished from GCT of long bones in that: CGCG affects younger patients, is more common in the mandible, rarely if ever metastasises, and can be managed by curettage. GCT occasionally metastasises (approximately 2–3% to the lung). **Therefore option A ("both never metastasize") is the EXCEPTION (incorrect statement)** – GCT can metastasise, while CGCG does not. The question asks which is the exception, making A the answer. [Go Back to Q75](#)

Answer: (D) The standard regimen for intralesional corticosteroid injection in CGCG is



triamcinolone acetonide 10 mg/mL mixed with an equal volume of local anaesthetic, administered as multiple injections (0.5–1 mL per cm of lesion) weekly for 6 weeks. This protocol, described by Jacoway and colleagues, results in clinical and radiographic resolution in a proportion of cases. A single injection (A, B) is insufficient. [Go Back to Q76](#)

Answer: (B) Histologically, the **brown tumour of hyperparathyroidism** is identical to CGCG. However, in hyperparathyroidism, **serum calcium is elevated and PTH is elevated (primary HPT) or appropriately elevated (secondary HPT).** Treatment of the primary hyperparathyroidism (parathyroid adenoma removal) leads to resolution of the brown tumours. CGCG has normal serum calcium and PTH. This blood test differentiates the two. [Go Back to Q77](#)

Answer: (C) Langerhans cell histiocytosis (eosinophilic granuloma) destroys alveolar bone rapidly, creating **punched-out radiolucent defects** that leave the teeth without bony support, creating the classical **“floating teeth” appearance** on radiograph. Root resorption does not occur (differentiating it from aggressive periodontitis). Ground-glass opacity (B) is seen in fibrous dysplasia. [Go Back to Q78](#)

Answer: (D) Ghost cell odontogenic carcinoma (GCOC) is the rare **malignant variant of calcifying cystic odontogenic tumour (CCOT, formerly “Gorlin cyst”).** It is characterised by **ghost cells** (anucleate eosinophilic epithelial cells with calcification), and shows malignant features including cellular pleomorphism, mitoses, and locally aggressive/metastatic behaviour. It is not related to CEOT (Pindborg tumour, B) or ameloblastoma (C). [Go Back to Q79](#)

Answer: (B) Central (intraosseous) mucoepidermoid carcinoma arises within the jaw bones, most commonly the mandible. It is believed to originate from **mucous cells or entrapped salivary gland tissue within the mandibular canal or bone.** It presents as a painless, slow-growing radiolucency and may be misdiagnosed as a cyst. It is not from direct parotid extension (D) – that would be a peripheral (secondary) involvement. [Go Back to Q80](#)

Answer: (C) In Gorlin-Goltz syndrome, the maxillofacial surgeon is responsible for management of the **multiple OKCs** and also coordinates with dermatology for the **multiple basal cell carcinomas (BCCs)** which can be locally destructive on the face. Medulloblastomas (A) are managed by neurosurgery and oncology. Ossifying fibromas (D) are not a specific feature of Gorlin-Goltz syndrome. [Go Back to Q81](#)

Answer: (C) Parotid mucoepidermoid carcinoma invading the mandibular ramus requires **composite resection:** total parotidectomy (with facial nerve preservation if the nerve is not invaded by tumour) combined with **segmental mandibulectomy.** Free flap reconstruction follows. **Adjuvant radiotherapy** is recommended for high-grade tumours, positive margins, or perineural invasion. Curettage alone (D) leaves microscopic disease. [Go Back to Q82](#)



TMJ Disorders (Q83–Q90)

Answer: (A) The **central (intermediate) zone** of the TMJ disc is the **thinnest, most avascular and aneural** part of the disc, composed of **dense fibrocartilage**. This region is the primary load-bearing area during function. The peripheral zones (anterior and posterior bands) are vascular and innervated. The absence of vessels and nerves in the intermediate zone explains why disc perforations in this area are initially painless. [Go Back to Q83](#)

Answer: (D) The **superior stratum** of the bilaminar (retrodiscal) tissue is composed of **elastic fibres** that store energy during condylar translation (mouth opening) and **passively retract the disc posteriorly** as the condyle returns to the fossa during mouth closing. This elastic recoil is responsible for disc recapture in cases of disc displacement with reduction. The inferior stratum is inelastic (collagen) and limits anterior disc movement. [Go Back to Q84](#)

Answer: (B) The normal maximum interincisal opening (MIO) in adults is **40–50 mm**. Opening of less than 35 mm is considered restricted (trismus). Normal lateral excursion is approximately 10 mm and protrusion is 6–9 mm. Values below 40 mm should prompt investigation for TMD, masticatory muscle pathology, or other causes of limited opening. [Go Back to Q85](#)

Answer: (C) A **reciprocal click** (click on opening + click on closing) is pathognomonic of **disc displacement with reduction**. The opening click occurs as the condyle translates forward beneath the displaced (anteriorly displaced) disc and recaptures it. The closing click occurs as the condyle slips posteriorly off the disc. Crepitus (A) indicates OA/arthritis. A single click on opening suggests unilateral disc displacement with reduction without a closing click sometimes. [Go Back to Q86](#)

Answer: (A) In TMJ osteoarthritis, the joint space is **narrowed** (not widened) due to disc thinning, perforation, and loss of disc height. Radiographic findings include: subchondral sclerosis (B), osteophyte formation anteriorly (C), flattening of the condylar head (D), and **loss of joint space**. Therefore **widening of the joint space (A) does not occur in OA** – this is the exception/incorrect statement. [Go Back to Q87](#)

Answer: (B) The TMJ disc is **soft tissue** and is therefore **invisible on plain radiographs** (including OPG), which only show mineralised hard tissue. OPG can reveal bony changes (condylar flattening, osteophytes, loss of joint space in advanced OA) but cannot diagnose disc position or disc derangement. **MRI is the gold standard** for disc position and morphology assessment. [Go Back to Q88](#)

Answer: (D) Normally the TMJ disc is **biconcave** (thicker anterior band, thinner intermediate zone, thicker posterior band). A **biconvex morphology** indicates **disc thickening and deformity**, typically a result of chronic disc displacement, degeneration, and fibrosis. This is associated with internal derangement and may indicate disc non-reduction. It is not



a normal variant (A) – a biconvex disc is always abnormal. [Go Back to Q89](#)

Answer: (C) The **superior head of the lateral pterygoid** muscle attaches to the **anterior band of the TMJ disc and the condylar neck/pterygoid fovea**. When this muscle is in spasm or hyperactive, it **pulls the disc anteriorly**, contributing to **anterior disc displacement**. This is the central biomechanical explanation for disc displacement in TMD. The inferior head of the lateral pterygoid protrudes the condyle during opening. [Go Back to Q90](#)

Orthognathic Surgery (Q91–Q95)

Answer: (D) Obwegeser's original SSRO had the buccal cut at the external oblique ridge level. **Dal Pont (1961)** modified this by extending the **buccal (lateral) osteotomy anteriorly to the level of the first or second premolar area**, creating a longer horizontal cut with **greater bone-to-bone contact** between the proximal and distal segments. This increases surface area for healing and allows greater predictability of bone contact after advancement. [Go Back to Q91](#)

Answer: (A) In BSSRO, the IAN runs within the mandibular canal. The surgical goal is to ensure the nerve **remains within the proximal (condyle-bearing) segment** as the medullary bone is split. The **distal (tooth-bearing) segment** is then moved to the desired position. The nerve is not cut; rather the cancellous bone split is designed so the nerve stays with the proximal piece and the distal piece slides past it. Damage occurs if the split is too medial or if bony spicules are near the canal. [Go Back to Q92](#)

Answer: (B) The most common cause of relapse following orthognathic surgery is **tongue pressure** (particularly after mandibular setback – the tongue pushes the mandible forward) and **condylar torque** (the condyle is compressed or torqued during rigid fixation in a non-physiological position, and gradually repositions post-operatively, changing the occlusal relationship). Plate loosening (A) is uncommon with modern fixation. [Go Back to Q93](#)

Answer: (C) **Rigid internal fixation** (bicortical screws or miniplates) provides **three-dimensional stability**, allowing immediate mobilisation and eliminating the need for prolonged IMF. This significantly reduces relapse rates compared to wire osteosynthesis. Wire osteosynthesis requires IMF (4–6 weeks), which does increase the risk of TMJ stiffness (A), but the primary advantage of RIF is **reduced relapse**, not just avoidance of IMF. [Go Back to Q94](#)

Answer: (D) **Vertical maxillary excess** (gummy smile, long face) is corrected by a **Le Fort I osteotomy with superior impaction** – the maxilla is moved **upward** to reduce the vertical height. This decreases the amount of gingival display, reduces lower face height, and auto-rotates the mandible upward and forward. Downward impaction (A) would worsen the condition. BSSRO (C) addresses anteroposterior mandibular discrepancies. [Go Back to Q95](#)



Preprosthetic Surgery & Medical Emergencies (Q96–Q100)

Answer: (B) Early (**primary**) **implant failure** occurs before osseointegration – typically within the first 8–12 weeks. The most common causes are: **inadequate primary stability** (implant placed in poor bone quality or insufficient bone volume), **thermal necrosis of bone during drilling** (excessive heat from slow or clogged burs), and **uncontrolled systemic conditions** (uncontrolled diabetes, bisphosphonate therapy). Peri-implantitis (A) causes late failure after osseointegration. [Go Back to Q96](#)

Answer: (D) Peri-implantitis management follows a stepwise protocol: (1) non-surgical – debridement, local antibiotics; (2) surgical – flap access, decontamination, bone grafting with GBR if there is vertical bone loss. **Immediate implant removal is NOT the first-line treatment** (D); it is reserved for cases where conservative and surgical management have completely failed, or where there is acute systemic infection from the implant site. Options A, B, and C are all valid treatment steps. [Go Back to Q97](#)

Answer: (A) **Resorbable membranes** (e.g., Bio-Gide, collagen, PLGA) **do not require a second surgery** for removal, reducing patient morbidity and cost. Their limitation is that they provide **less space maintenance** than non-resorbable membranes (e.g., ePTFE/Gore-Tex) because they lose integrity as they resorb, sometimes before complete bone formation. Non-resorbable membranes must be removed at a second procedure but maintain space better. Neither is universally associated with higher infection rates (C is incorrect). [Go Back to Q98](#)

Answer: (B) The patient has signs of **vasovagal syncope** (pallor, diaphoresis, bradycardia, loss of consciousness). The immediate treatment is the **Trendelenburg position** (supine with legs elevated 30–45 degrees) to restore cerebral perfusion by increasing venous return. Keeping the patient upright (A) worsens cerebral ischaemia. Ammonia capsules may help. If recovery is rapid, no further treatment is required. If it is not a vasovagal episode, re-evaluate urgently. [Go Back to Q99](#)

Answer: (C) For a patient with confirmed latex allergy, all dental materials must be **latex-free**: non-latex gloves (nitrile or vinyl), latex-free rubber dam, latex-free equipment (tubing, oxygen masks). The patient should ideally be **scheduled as the first case of the day** when the latex aerosol levels are lowest (from overnight settling). Proceeding with latex gloves (A) risks anaphylaxis. Pre-medication (B) does not prevent anaphylaxis and is not the correct protocol. [Go Back to Q100](#)

