

NEET MDS Oral and Maxillofacial Surgery Sample Paper – 2

Duration: 90 Minutes

Maximum Marks: 400

Instructions

Instructions: This paper contains **100 single-correct MCQs**. Each correct answer carries **+4 marks**. Each wrong answer carries **–1 mark**. Unattempted questions carry **0 marks**.

Section: Oral and Maxillofacial Surgery (Q1–Q100)

Third Molar Impaction (Q1–Q15)

- Q1.** Which classification is most commonly used for maxillary third molar impactions? (A) Winter's classification (B) Pell-Gregory classification (C) Archer's classification (D) Kruger's classification
- Q2.** During surgical removal of a lower third molar, a lingual retractor is used primarily to protect which structure? (A) Lingual nerve (B) Inferior alveolar nerve (C) Hypoglossal nerve (D) Mylohyoid nerve
- Q3.** Coronectomy (intentional root retention) is indicated when the roots of a lower third molar are in close proximity to which structure? (A) Mental nerve (B) Long buccal nerve (C) Inferior alveolar nerve (D) Lingual nerve
- Q4.** The most common space infection secondary to an impacted lower third molar is: (A) Buccal space (B) Sublingual space (C) Pericoronitis extending to submasseteric space (D) Lateral pharyngeal space
- Q5.** Which of the following is a recognised complication specific to removal of an impacted maxillary third molar? (A) Damage to the lingual nerve (B) Inferior alveolar nerve paraesthesia (C) Ludwig's angina (D) Oroantral communication
- Q6.** In Pell-Gregory classification, Class III impaction is defined as the tooth positioned: (A) With sufficient space between the anterior border of the ramus and the distal surface of the second molar to accommodate the entire crown width (B) With the tooth crown at or below the cervical line



of the second molar (C) With the tooth crown partially within the ramus
(D) Completely within the ramus with no space between the ramus and distal surface of the second molar

- Q7.** The ideal age for prophylactic removal of an impacted lower third molar is: (A) 18–25 years (B) 30–35 years (C) 14–16 years (D) After the age of 40 years
- Q8.** On OPG, which radiographic sign indicates diversion of the inferior alveolar canal by the lower third molar root? (A) Narrowing of the canal at the root apex (B) Loss of the white line (cortical outline) of the canal (C) Bifid or accessory roots (D) Deviation (bending) of the canal around the root
- Q9.** CBCT is superior to OPG for assessment of lower third molar proximity to the inferior alveolar nerve because it provides: (A) Lower radiation dose (B) Three-dimensional spatial relationship of root to canal (C) Better visualisation of root morphology only (D) Assessment of follicular size
- Q10.** Which mucoperiosteal flap design is most commonly used for surgical removal of an upper (maxillary) third molar? (A) Triangular flap with anterior vertical release only (B) Envelope flap with or without a posterior buccal vertical release (C) Trapezoidal flap with two vertical releases (D) Semilunar flap
- Q11.** A partially erupted third molar that is covered by mucosa but not by bone is classified as: (A) Complete bony impaction (B) Complete soft-tissue impaction (C) Partial soft-tissue impaction (D) Partial bony impaction
- Q12.** According to Winter's classification, which angulation of a lower third molar impaction is associated with the highest difficulty of removal? (A) Transverse (horizontal) impaction (B) Mesioangular impaction (C) Vertical impaction (D) Distoangular impaction
- Q13.** During removal of an impacted lower third molar, sectioning of the tooth is preferred over simple elevation when: (A) The tooth is mesioangularly impacted with adequate space (B) The roots are divergent, curved, or



close to the inferior alveolar nerve (C) The tooth is partially erupted with no bone covering (D) The patient is above 50 years of age only

- Q14.** Which OPG sign of inferior alveolar nerve proximity is described as the root appearing to have a dark (radiolucent) band crossing it at the canal level? (A) Darkening of the root (interruption of the root outline by the canal) (B) Narrowing of the root (C) Bifid root sign (D) Deviation of the canal
- Q15.** A factor that DELAYS eruption of a third molar includes: (A) Adequate arch length (B) Inadequate space in the retromolar region (C) Early loss of second molar (D) Absence of a follicle

Exodontia (Q16–Q25)

- Q16.** The Cryer elevator works on which mechanical principle? (A) Lever principle alone (B) Wedge principle alone (C) Wheel-and-axle principle (D) Inclined plane principle
- Q17.** The primary extraction movement for an upper central incisor is: (A) Labial and palatal luxation followed by rotation (B) Rotation only (C) Buccal luxation only (D) Apical force followed by straight traction
- Q18.** Secondary haemorrhage after tooth extraction is defined as bleeding that occurs: (A) Immediately at the time of extraction (B) Within the first 6 hours post-extraction (C) More than 24 hours after extraction, usually due to infection (D) At 6–24 hours due to clot retraction
- Q19.** A patient on long-term warfarin therapy requires a single tooth extraction. The recommended approach is: (A) Stop warfarin 5 days before extraction (B) Substitute with heparin pre-operatively (C) Proceed with extraction if INR is ≤ 3.5 and use local haemostatic measures (D) Extract only under general anaesthesia
- Q20.** Opening of the maxillary antrum (oroantral communication) most commonly occurs during extraction of which tooth? (A) Upper canine (B) Upper first premolar (C) Upper second premolar (D) Upper first molar
- Q21.** A small root fragment (less than 3 mm) lying close to the floor of the maxillary sinus is best managed by: (A) Leaving in situ and monitoring



radiographically (B) Immediate surgical retrieval via Caldwell-Luc (C) Retrieving via suction through the socket (D) Requesting CT and referring for endoscopic removal

- Q22.** Which phase of extraction socket healing involves replacement of the blood clot by granulation tissue? (A) Phase 1 (haemostasis – days 1–2) (B) Phase 2 (granulation tissue formation – days 3–7) (C) Phase 3 (connective tissue matrix – weeks 2–4) (D) Phase 4 (bone mineralisation – months 1–6)
- Q23.** Post-extraction cellulitis differs from alveolar osteitis (dry socket) primarily by: (A) Onset within 24 hours (B) Presence of swelling, erythema, and systemic features (C) Empty socket with exposed bone (D) Foul odour without swelling
- Q24.** The Winter elevator is used in the technique of: (A) Apical elevation of a retained root (B) Transalveolar extraction of lower premolars (C) Removing curved palatal roots of upper molars (D) Interseptal removal using the lever principle between adjacent roots
- Q25.** A patient on aspirin 75 mg daily requires dental extraction. Current evidence-based guidance recommends: (A) Stop aspirin 7 days before extraction (B) Continue aspirin and control bleeding with local measures (C) Switch to clopidogrel pre-operatively (D) Perform extraction only in a hospital setting

Local Anaesthesia (Q26–Q40)

- Q26.** The greater palatine nerve block is administered at: (A) The incisive papilla at the midline (B) The junction of the hard and soft palate in the midline (C) The greater palatine foramen, located 1 cm medial to the gingival margin of the upper third molar (D) The pterygomandibular raphe
- Q27.** The nasopalatine nerve block is given at: (A) The greater palatine foramen (B) The incisive papilla overlying the incisive foramen (C) The posterior hard palate bilaterally (D) The nasal floor adjacent to the vomer



- Q28.** The posterior superior alveolar (PSA) nerve block anaesthetises: (A) All upper teeth on the side of injection (B) Upper incisors and canine only (C) Upper molars (except the mesiobuccal root of the first molar in some patients) (D) Upper premolars and molars
- Q29.** The infraorbital nerve block produces anaesthesia of: (A) Upper molars, premolars, and incisors (B) Upper incisors only (C) Lower lip and chin (D) Upper lip, anterior cheek, lower eyelid, lateral nose, upper incisors, canine, and premolars
- Q30.** Local anaesthetics produce their effect by: (A) Blocking voltage-gated sodium channels, preventing depolarisation (B) Opening potassium channels to hyperpolarise the membrane (C) Blocking calcium channels at the neuromuscular junction (D) Inhibiting acetylcholinesterase
- Q31.** A local anaesthetic with a lower pKa will have: (A) Slower onset of action (B) Faster onset of action because more un-ionised base is available at physiological pH (C) Longer duration of action (D) Greater potency but no effect on onset
- Q32.** Which topical anaesthetic is most commonly used in dentistry and is safe because it is poorly absorbed systemically? (A) Lignocaine gel 2% (B) Cocaine solution (C) Tetracaine (amethocaine) gel (D) Benzocaine 20% gel
- Q33.** EMLA cream is a eutectic mixture of: (A) Lignocaine 2.5% and prilocaine 2.5% (B) Benzocaine 10% and tetracaine 4% (C) Bupivacaine 0.5% and lignocaine 2% (D) Mepivacaine 3% and articaine 4%
- Q34.** In patients with severe ischaemic heart disease, which vasoconstrictor is preferred as an alternative to adrenaline in local anaesthetic solutions? (A) Noradrenaline (B) Felypressin (octapressin) (C) Phenylephrine (D) Vasopressin at standard concentrations
- Q35.** Adrenaline-containing local anaesthetics are absolutely contraindicated in patients taking: (A) Beta-blockers (B) ACE inhibitors (C) Calcium channel blockers (D) Non-selective MAO inhibitors (monoamine oxidase inhibitors)



- Q36.** Local anaesthetics are classified as Pregnancy Category B or C. The safest choice for a pregnant dental patient is: (A) Bupivacaine with adrenaline (B) Prilocaine plain (C) Lignocaine with adrenaline at minimal effective dose (D) Mepivacaine plain (vasoconstrictor-free)
- Q37.** A field block differs from a nerve block in that: (A) A field block targets a named nerve trunk (B) A field block requires larger volumes of anaesthetic (C) A nerve block deposits solution around terminal nerve endings only (D) A field block deposits solution around terminal nerve endings near the operative site, whereas a nerve block targets a nerve trunk at a distance
- Q38.** Intraosseous injection (e.g., X-tip system) delivers local anaesthetic directly into: (A) The periodontal ligament space (B) The cancellous bone distant from the tooth (C) The dental pulp directly (D) The cancellous bone adjacent to the tooth apex, via a perforated cortex
- Q39.** Intraseptal anaesthesia is a technique where: (A) Solution is injected into the pulp chamber (B) Solution is deposited under the periosteum along the buccal plate (C) Solution is injected into the interdental septum under pressure for both anaesthesia and haemostasis (D) Solution is injected into the greater palatine canal
- Q40.** The PSA block carries the specific complication of: (A) Haematoma in the pterygoid plexus/infratemporal fossa region (B) Facial nerve palsy (C) Trismus from muscle injection (D) Oroantral fistula

Orofacial Infections (Q41–Q52)

- Q41.** Infections from the lower anterior teeth (incisors) typically involve which fascial space primarily? (A) Buccal space (B) Submental space only (C) Sublingual space (D) Masticator space
- Q42.** The masticator space is most commonly infected from which source? (A) Upper first molar (B) Lower first premolar (C) Lower third molar (D) Lower incisor
- Q43.** The temporal space has two compartments. Which of the following correctly describes them? (A) Superficial temporal (above temporalis) and



deep temporal (between temporalis and temporal bone) (B) Anterior temporal and posterior temporal (C) Medial temporal and lateral temporal (D) Superficial temporal (between skin and temporalis fascia) and deep temporal (between temporalis muscle and temporal bone)

- Q44.** The parapharyngeal (lateral pharyngeal) space is bounded medially by: (A) The medial pterygoid muscle (B) The parotid gland (C) The pharyngeal constrictor muscles and pharynx (D) The pterygomandibular raphe
- Q45.** Actinomycosis of the jaw is caused by: (A) *Staphylococcus aureus* (B) *Fusobacterium necrophorum* (C) *Bacteroides fragilis* (D) *Actinomyces israelii*
- Q46.** The pathognomonic histological finding in actinomycosis is: (A) Gram-negative rods in clusters (B) Sulfur granules composed of tangled filaments with a rosette of clubs (C) Palisading epithelioid cells (D) Eosinophilic hyaline bodies
- Q47.** Acute osteomyelitis of the jaw is most commonly caused by: (A) Haematogenous spread from a distant focus (B) Direct extension from a periapical or periodontal infection (C) Post-radiation changes (D) Bisphosphonate exposure
- Q48.** In chronic osteomyelitis of the jaw, a sequestrum is defined as: (A) A fragment of dead bone separated from the living bone (B) New bone forming a shell around the sequestrum (C) An involucrum surrounding the infected area (D) A sinus tract connecting the bone to the skin surface
- Q49.** The principle of incision and drainage (I&D) for a fascial space infection dictates that the incision should be placed at: (A) The most fluctuant and superficial point regardless of anatomy (B) The most dependent portion of the abscess to ensure gravity drainage, avoiding vital structures (C) The centre of the swelling (D) The point of maximum tenderness
- Q50.** For a patient with a penicillin allergy (non-anaphylactic), the first-line antibiotic alternative for odontogenic infections is: (A) Tetracycline (B) Metronidazole alone (C) Clindamycin (D) Ciprofloxacin



- Q51.** Orbital cellulitis as a complication of maxillary dental infection spreads via: (A) The facial vein communicating with the ophthalmic veins and spread through the inferior orbital fissure (B) Direct extension through the orbital floor (C) Haematogenous spread via carotid system (D) Spread through the infraorbital foramen
- Q52.** Buccal space infection is drained intraorally by incision: (A) Through the skin overlying the buccinator (B) Along the pterygomandibular raphe (C) At the depth of the mucobuccal fold below the parotid duct (D) Through the mucosa in the buccal sulcus at the level of the occlusal plane, anterior to the parotid duct opening

Maxillofacial Fractures (Q53–Q64)

- Q53.** According to Rowe and Killey classification, a condylar neck fracture refers to a fracture: (A) Through the condylar head (intracapsular) (B) At the base of the condyle (subcondylar) (C) Through the neck of the condylar process below the condylar head (D) Through the sigmoid notch
- Q54.** The preferred treatment for a unilateral subcondylar fracture in an adult with minimal displacement and maintained occlusion is: (A) Open reduction and internal fixation (ORIF) with titanium plates (B) Closed reduction with intermaxillary fixation (IMF) and early mobilisation (C) Condylectomy (D) Observation alone without any fixation
- Q55.** The Gillies temporal approach for reduction of a depressed zygomatic arch fracture involves passing an elevator: (A) Intraorally through the buccal sulcus (B) Through a sub-ciliary incision below the eye (C) Through a temporal incision in the hair-bearing scalp, beneath the temporalis fascia and under the arch (D) Through a pre-auricular incision
- Q56.** A blow-out fracture of the orbital floor characteristically produces: (A) Diplopia (particularly on upward gaze), enophthalmos, and infraorbital nerve paraesthesia (B) Raccoon eyes and CSF rhinorrhoea (C) Ipsilateral epistaxis and nasal deviation (D) Subcutaneous emphysema in the neck
- Q57.** In panfacial fractures, the recommended sequence of repair is: (A) Top-down: cranial base first, then midface, then mandible (B) Middle-out:



midface first, then mandible, then cranial base (C) Outside-in: orbital rims, then midface, then palate (D) Bottom-up and outside-in: establish mandibular width first, restore occlusion, then build up midface and orbital framework

- Q58.** Intermaxillary fixation (IMF) using arch bars is primarily used to: (A) Immobilise the fractured condyle permanently (B) Prevent temporomandibular joint ankylosis (C) Reduce blood loss during maxillofacial surgery (D) Restore and maintain the correct occlusion while bony union occurs
- Q59.** A Gunning splint is used in edentulous patients with jaw fractures to: (A) Act as a prosthetic occlusal splint to provide fixation without teeth (B) Provide internal rigid fixation to the fracture fragments (C) Drain a post-fracture haematoma (D) Serve as a surgical stent for bone grafting
- Q60.** The Keen approach for zygomatic complex fracture reduction uses an incision: (A) In the scalp temporal region (B) In the buccal sulcus above the upper second molar, medial to the zygoma (C) Below the lower eyelid (sub-ciliary) (D) Coronal (bicoronal scalp incision)
- Q61.** Frontal sinus fractures involving the posterior wall are significant because of risk of: (A) Cosmetic deformity alone (B) Chronic sinusitis (C) Osteomyelitis of the frontal bone (D) Intracranial complications including CSF leak, pneumocephalus, and meningitis
- Q62.** The angle of the mandible is a common fracture site because: (A) It is a structurally weak area with a change in cross-sectional geometry, often associated with an unerupted third molar (B) It is the thinnest part of the mandibular cortex (C) It is directly exposed to blunt trauma from the front (D) The masseter muscle creates a distracting tensile force here
- Q63.** In an isolated nasal fracture, definitive reduction is best performed: (A) Immediately at the time of injury before swelling (B) After 5–7 days, when swelling has subsided but before fibrous union (within 10–14 days) (C) After complete bone union has occurred (6–8 weeks) (D) Under general anaesthesia only, after CT imaging



- Q64.** Inferior rectus muscle entrapment in an orbital floor blowout fracture is confirmed by: (A) Facial X-ray (Water's view) (B) Clinical diplopia alone (C) Hertel exophthalmometry (D) CT scan of the orbit showing muscle entrapment and a positive forced duction test

Jaw Cysts (Q65–Q74)

- Q65.** Which of the following is the correct classification of a dentigerous cyst based on its relationship to the crown of an unerupted tooth? (A) Simple and compound (B) Lateral and apical (C) Central, lateral, and circumferential (D) Primordial and follicular
- Q66.** The botryoid odontogenic cyst is a variant of: (A) Dentigerous cyst (B) Lateral periodontal cyst (C) Odontogenic keratocyst (D) Radicular cyst
- Q67.** The calcifying odontogenic cyst (Gorlin cyst) is characterised histologically by: (A) Ghost cells (shadow cells) and calcification within the cyst wall (B) Parakeratinised corrugated epithelium (C) Rushton bodies (D) Cholesterol clefts and haemosiderin deposits
- Q68.** The nasopalatine duct cyst (incisive canal cyst) appears radiographically as: (A) A unilocular radiolucency at the apex of an upper lateral incisor (B) A multilocular radiolucency between the upper central incisors (C) A radiopaque lesion at the incisive foramen (D) A heart-shaped or pear-shaped radiolucency in the midline of the anterior hard palate, between or above the roots of the upper central incisors
- Q69.** The globulomaxillary cyst was traditionally thought to arise between the upper lateral incisor and canine. Current evidence suggests it is: (A) Always a fissural cyst of developmental origin (B) A variant of the dentigerous cyst (C) Not a true pathological entity; most lesions are odontogenic cysts (radicular or lateral periodontal) occurring at this site (D) Invariably a giant cell granuloma
- Q70.** A traumatic bone cyst (simple bone cyst) on exploration typically reveals: (A) An empty cavity with no epithelial lining and only a thin connective tissue lining (B) A cyst filled with straw-coloured fluid under pressure (C) Granulation tissue with cholesterol clefts (D) Daughter cysts within



the wall

- Q71.** Carnoy's solution is used as an adjunct after enucleation of an odontogenic keratocyst (OKC) to: (A) Sterilise the bone cavity and prevent infection (B) Chemically fix and destroy any residual epithelial remnants and satellite cysts in the bone wall (C) Stimulate bone regeneration (D) Reduce post-operative swelling
- Q72.** Multiple odontogenic keratocysts in a young patient should prompt investigation for: (A) Multiple endocrine neoplasia (MEN) (B) Cherubism (C) Gorlin-Goltz syndrome (Naevoid Basal Cell Carcinoma syndrome) (D) Gardner's syndrome
- Q73.** An eruption cyst differs from a dentigerous cyst in that it: (A) Occurs in the soft tissue overlying the crown of an erupting tooth, rather than within bone (B) Is lined by keratinised stratified squamous epithelium (C) Is always associated with an impacted tooth (D) Requires surgical enucleation in all cases
- Q74.** Differentiating a unicystic ameloblastoma from a dentigerous cyst requires: (A) Radiographic size alone (ameloblastoma is always larger) (B) Histopathological examination, as they can appear identical radiographically (C) CBCT showing multilocular pattern in dentigerous cyst (D) Aspiration cytology showing ghost cells

Odontogenic Tumours (Q75–Q82)

- Q75.** Odontogenic myxoma on OPG typically shows: (A) Multilocular radiolucency with a “tennis racket” or “soap bubble” pattern and fine bony trabeculae crossing at right angles (B) A well-defined unilocular radiolucency at the angle of the mandible (C) A mixed radiolucent/radiopaque lesion with a ground-glass appearance (D) A periapical radiopacity fused to the root
- Q76.** Compound odontoma is characterised by: (A) A disorganised mass of dental hard tissues in the posterior jaw (B) A large radiopaque lesion with a radiolucent rim in the posterior mandible (C) Ghost cells and calcifications (D) Multiple small toothlike structures (denticles) in an



organised arrangement, most common in the anterior maxilla

- Q77.** Complex odontoma differs from compound odontoma by: (A) Occurring in the anterior jaw (B) Being a disorganised mass of dental hard tissues without resemblance to teeth, most common in the posterior jaw (C) Being purely radiolucent (D) Having a higher risk of malignant transformation
- Q78.** Central cemento-ossifying fibroma (CCOF) is best described as: (A) A malignant lesion of cementum-producing cells (B) A purely radiolucent lesion of the posterior mandible (C) A benign fibro-osseous lesion showing mixed radiolucent/radiopaque pattern with a well-defined sclerotic rim, most common in the mandible of young women (D) A lesion arising from the periodontal ligament of the maxillary anterior teeth only
- Q79.** Cementoblastoma is characterised by a mass fused to the root of a tooth. Radiographically it appears as: (A) A periapical radiolucency with a sclerotic rim (B) A well-defined periapical radiopacity fused to the root with a radiolucent rim (C) A multilocular radiolucency at the root apex (D) A ground-glass radiopacity throughout the jaw
- Q80.** Ameloblastic fibroma is characterised by: (A) Proliferating odontogenic epithelium in a primitive ectomesenchymal stroma, occurring predominantly in children and young adults (B) Ghost cells and calcifications within a cystic wall (C) Amyloid-like material and Liesegang rings (D) Large ghost-cell basophilic areas with calcification
- Q81.** The squamous odontogenic tumour arises from: (A) Reduced enamel epithelium (B) Dental lamina remnants in the posterior jaw (C) Rests of Malassez in the periodontal ligament, characteristically in the lateral periodontal region (D) Hertwig's epithelial root sheath
- Q82.** The calcifying cystic odontogenic tumour (CCOT, Gorlin cyst) differs from the calcifying odontogenic cyst by being reclassified in WHO 2017 as: (A) A malignant neoplasm (B) A benign cystic neoplasm with ghost cells and calcifications, and the term "cyst" was replaced by "tumour" to reflect neoplastic behaviour (C) A variant of the odontogenic keratocyst (D) A reactive lesion without epithelial lining



TMJ Disorders (Q83–Q90)

- Q83.** Wilkes Stage I of internal derangement of the TMJ is characterised by: (A) Established disc displacement without reduction and significant joint changes (B) Intermittent locking with occasional pain (C) Disc displacement with reduction and moderate joint changes (D) Painless clicking without joint changes, representing early disc displacement with reduction
- Q84.** Wilkes Stage II of TMJ internal derangement is distinguished from Stage I by: (A) Complete loss of disc mobility (B) Occasional pain, intermittent locking, and slight anatomical changes in the disc (C) Perforation of the disc (D) Condylar resorption and osteoarthritic changes
- Q85.** The TMJ disc is anatomically described as: (A) Hyaline cartilage, biconcave, highly vascular (B) Elastic fibrocartilage, monoconcave, avascular in the central zone (C) Dense fibrous tissue, flat, uniformly thick (D) Fibrocartilage (dense collagen), biconcave (thinner in the centre – the intermediate zone), avascular and aneural in the central load-bearing zone
- Q86.** The gold standard imaging modality for evaluating the position and morphology of the TMJ disc is: (A) MRI (Magnetic Resonance Imaging) (B) OPG (Orthopantomograph) (C) CT scan (D) Ultrasound
- Q87.** Modified condylotomy is a surgical procedure used for TMJ internal derangement that involves: (A) Surgical repositioning of the disc via arthroscopy (B) Removal of the condyle (C) Arthroscopic lavage and lysis of adhesions (D) An intraoral sagittal split of the condylar process to allow the condyle to shift anteriorly, reducing load and allowing disc repositioning
- Q88.** Myofascial pain dysfunction syndrome (MPD) is characterised by: (A) Radiographic evidence of condylar erosion (B) True disc displacement with locking (C) Muscle tenderness, limited or painful jaw movement, and absence of significant joint changes or radiographic abnormality (D) Reciprocal click with reduction



- Q89.** Bruxism management in a patient with TMJ involvement primarily involves: (A) Surgical disc repositioning (B) Extraction of the upper molar teeth (C) An occlusal stabilisation splint (hard acrylic bite guard) worn at night to reduce parafunctional loading (D) Botulinum toxin injection as the sole first-line treatment
- Q90.** TMJ arthroscopy allows direct visualisation and treatment of: (A) The superior joint space, including lysis of adhesions, lavage, and disc repositioning under arthroscopic guidance (B) The inferior joint space primarily (C) Both joint spaces simultaneously through a single portal (D) The pterygoid attachment to the disc from within the joint

Orthognathic Surgery (Q91–Q95)

- Q91.** An osseous genioplasty for chin advancement is performed by: (A) Horizontal osteotomy of the chin below the mental foramina, with the freed segment advanced and fixed with titanium plates (B) Placement of an alloplastic chin implant over the anterior symphysis (C) Sagittal split of the symphysis (D) Removal of bone from the inferior border of the mandible
- Q92.** The normal value of the SNA angle on lateral cephalometric analysis is: (A) 76 ± 2 degrees (B) 78 ± 2 degrees (C) 82 ± 2 degrees (D) 86 ± 2 degrees
- Q93.** The ANB angle represents the sagittal jaw relationship. A skeletal Class I relationship is indicated by an ANB angle of: (A) 0 degrees (B) 5–6 degrees (C) > 6 degrees (D) 2 ± 2 degrees (range 0–4 degrees)
- Q94.** In Delaire's architectural and structural craniofacial analysis, the primary reference plane is drawn from: (A) Nasion to basion (the cranial base), forming the structural axis of the face (B) Sella to nasion (C) Frankfort horizontal plane (D) The palatal plane extended posteriorly
- Q95.** Chin augmentation using an alloplastic implant (e.g., silicone) differs from osseous genioplasty in that it: (A) Can correct vertical excess of the chin (B) Is best suited for mild horizontal augmentation without significant vertical or asymmetry correction (C) Provides superior correction of chin asymmetry (D) Has a lower risk of implant migration than osseous



fixation

Preprosthetic Surgery & Medical Emergencies (Q96–Q100)

- Q96.** Intraseptal alveoloplasty is performed by: (A) Removing the interdental and interradicular bone within the sockets after extraction, compressing the cortical plates to achieve a smooth ridge (B) Radical removal of the entire labial cortical plate (C) Deepening the labial sulcus with a sub-mucosal dissection (D) Inserting an implant to support an overdenture prosthesis
- Q97.** Radical (Dean's) alveoloplasty involves: (A) Preservation of all interdental bone (B) Simple compression of alveolar plates after intraseptal bone removal (C) Mucosal graft augmentation of the ridge (D) Removal of the labial cortical plate in addition to the interdental septa to achieve significant ridge reduction
- Q98.** Tuberosity reduction is indicated when: (A) The maxillary sinus is enlarged (B) The patient has a severe gag reflex (C) There is insufficient bone height in the posterior maxilla (D) The maxillary tuberosity is excessively enlarged (fibrous or bony hyperplasia), compromising inter-arch space for prosthesis construction
- Q99.** A patient complains of crushing central chest pain radiating to the left arm while in the dental chair. The IMMEDIATE first-line management is: (A) Administer adrenaline 0.5 mg IM (B) Place the patient supine and start CPR immediately (C) Stop treatment, sit the patient upright, administer GTN (glyceryl trinitrate) sublingually, give oxygen, and call emergency services (D) Administer aspirin 300 mg orally and wait for resolution
- Q100.** Management of a patient who develops a generalised tonic-clonic epileptic seizure in the dental chair includes: (A) Placing a hard object between the teeth to prevent tongue biting (B) Protecting the patient from injury, clearing the airway, placing in the recovery position after the seizure, and administering IV/IM midazolam if the seizure persists beyond 5 minutes (C) Immediate administration of IV lignocaine (D) Performing urgent cricothyrotomy to secure the airway



Detailed Solutions

- Q1. **Answer: (A)** Winter's classification is the standard system used for classifying maxillary (upper) third molar impactions based on the angulation of the tooth relative to the long axis of the second molar (vertical, mesioangular, distoangular, horizontal/transverse, inverted, buccal, palatal). Pell-Gregory is primarily designed for mandibular third molars. [Go Back to Q1](#)
- Q2. **Answer: (A)** The **lingual nerve** runs in close proximity to the lingual aspect of the lower third molar socket. A lingual retractor (Howarth's or Bowdler-Henry retractor) is placed in the lingual gutter to deflect and protect the lingual nerve from injury during bone removal and tooth elevation. The IAN runs within the inferior alveolar canal below the roots and is not directly protected by a lingual retractor. [Go Back to Q2](#)
- Q3. **Answer: (C)** **Coronectomy** (intentional partial odontectomy) is indicated when the roots of a mandibular third molar are in close proximity to the **inferior alveolar nerve (IAN)**, as demonstrated by high-risk OPG signs or confirmed on CBCT. By retaining the root apices in situ, the risk of IAN damage is significantly reduced. [Go Back to Q3](#)
- Q4. **Answer: (C)** The most common fascial space infection secondary to an impacted lower third molar initially involves the **pericoronitis** extending to the **submasseteric (masseteric) space**, because the roots and follicle of the third molar lie in close relation to this space. Spread to the pterygomandibular and lateral pharyngeal spaces can follow. [Go Back to Q4](#)
- Q5. **Answer: (D)** Removal of the upper (maxillary) third molar carries the specific risk of **oroantral communication (OAC)** because the roots of the upper third molar may be closely related to the floor of the maxillary sinus (antrum). Lingual nerve damage and IAN paraesthesia are complications of lower third molar surgery. [Go Back to Q5](#)
- Q6. **Answer: (D)** In Pell-Gregory classification for mandibular third molars: **Class III** is defined as the tooth being completely or almost completely within the ramus, with **no space (or minimal space) between the anterior border of the ramus and the distal surface of the second molar**. This represents the most difficult surgical case in terms of ramus space. [Go Back to Q6](#)
- Q7. **Answer: (A)** The ideal age for prophylactic removal of an impacted lower third molar is **18–25 years**. At this age, root formation is typically two-thirds complete, the bone is more elastic, healing is faster, and complications such as IAN damage and dry socket are fewer compared to older patients. [Go Back to Q7](#)
- Q8. **Answer: (D)** On OPG, **deviation (bending) of the inferior alveolar canal** around the root is a recognised radiographic sign indicating the root is displacing the canal, suggesting close proximity. Other signs include narrowing of the canal, loss of the white lines of the canal, and darkening (interruption) of the root outline. [Go Back to Q8](#)
- Q9. **Answer: (B)** CBCT is superior to OPG for IAN assessment because it provides a **three-dimensional spatial relationship** between the root and the canal. OPG is a 2D projection that



may show superimposition; CBCT can precisely determine whether the canal is buccal, lingual, or interradicular to the roots. [Go Back to Q9](#)

- Q10. **Answer: (B)** The most commonly used flap for maxillary third molar removal is the **envelope flap** (sulcular incision extending distally and anteriorly), with or without a **posterior buccal vertical releasing incision**. This provides adequate access while preserving the integrity of the attached gingiva on the distal aspect. [Go Back to Q10](#)
- Q11. **Answer: (C)** A **partial soft-tissue impaction** describes a tooth that has partially erupted through the mucosa and is visible in the mouth, but remains partially covered by soft tissue (mucosa) with no overlying bone. This contrasts with complete bony impaction (entirely within bone) and partial bony impaction (partially erupted through bone, still partially covered by bone). [Go Back to Q11](#)
- Q12. **Answer: (A)** According to Winter's classification, a **transverse (horizontal) impaction** is the most difficult to remove because the tooth lies at 90 degrees to the long axis of the second molar, requiring extensive bone removal and tooth sectioning. The difficulty index is highest for this angulation. [Go Back to Q12](#)
- Q13. **Answer: (B)** **Tooth sectioning** is preferred when roots are **divergent, curved, or in close proximity to the IAN**, as attempting to elevate the whole tooth risks root fracture, excessive force, and nerve damage. Sectioning separates the crown from roots (and sometimes the roots from each other) to allow individual component removal with minimal force. [Go Back to Q13](#)
- Q14. **Answer: (A)** The "**darkening of the root**" sign on OPG represents interruption of the radiopaque outline of the root where the inferior alveolar canal crosses it. The radiolucent canal superimposed on the root gives the appearance of a dark band, indicating the canal passes through or very close to the root. [Go Back to Q14](#)
- Q15. **Answer: (B)** **Inadequate space in the retromolar region** (insufficient arch length between the distal surface of the second molar and the anterior border of the ramus) is a primary factor delaying or preventing eruption of the third molar. Early loss of the second molar would provide MORE space, potentially facilitating eruption. [Go Back to Q15](#)
- Q16. **Answer: (C)** The **Cryer elevator** works on the **wheel-and-axle principle**: the handle (axle) is rotated, and the working tip (rim of the wheel) applies force against the tooth or bone. This rotational movement amplifies force to luxate the tooth or root. The Winter elevator works on the lever principle. [Go Back to Q16](#)
- Q17. **Answer: (A)** For an upper central incisor, the primary extraction movement is **labial and palatal (buccal and palatal) luxation** to expand the socket, followed by **rotation** (since single-rooted teeth with round roots can be rotated) and then traction. This takes advantage of the tooth's conical single root. [Go Back to Q17](#)
- Q18. **Answer: (C)** **Secondary haemorrhage** is defined as bleeding occurring **more than 24 hours after extraction**, typically due to infection eroding a blood vessel wall (reactive hyperaemia and



infection-induced vessel wall damage). Primary haemorrhage occurs at the time of extraction; reactionary haemorrhage occurs within 6 hours due to slippage of vessels as vasoconstriction wears off. [Go Back to Q18](#)

- Q19. **Answer: (C)** Current evidence-based guidelines recommend **continuing warfarin** in patients requiring dental extraction if the **INR is ≤ 3.5** (some guidelines up to 4.0 for minor procedures). The procedure should be performed with local haemostatic measures (resorbable packing, sutures, tranexamic acid mouthwash). Stopping warfarin carries a greater thromboembolic risk. [Go Back to Q19](#)
- Q20. **Answer: (D)** Oroantral communication most commonly occurs during extraction of the **upper first molar** because its palatal and distobuccal roots are most intimately related to the floor of the maxillary sinus. The upper second molar and third molar are also at risk, but the first molar is the most common. [Go Back to Q20](#)
- Q21. **Answer: (A)** A **small root fragment (< 3 mm)** lying close to the sinus floor, in the absence of infection or sinus pathology, is best managed by **leaving it in situ and monitoring radiographically**. The risk of displacing the fragment into the antrum or causing sinus damage during retrieval outweighs the benefit of removal. [Go Back to Q21](#)
- Q22. **Answer: (B)** **Phase 2** of extraction socket healing (approximately days 3–7) involves the organisation and replacement of the blood clot by **granulation tissue** (ingrowth of capillaries, fibroblasts, and macrophages). Phase 1 is haemostasis (clot formation); Phase 3 involves connective tissue matrix deposition; Phase 4 is bone mineralisation. [Go Back to Q22](#)
- Q23. **Answer: (B)** Post-extraction **cellulitis** is distinguished from alveolar osteitis (dry socket) by the **presence of swelling, erythema, warmth, and systemic features** (fever, malaise, raised white cell count). Dry socket presents with an empty socket, exposed bare bone, foul odour, and severe localised pain without significant swelling or systemic features. [Go Back to Q23](#)
- Q24. **Answer: (D)** The **Winter elevator** (straight or curved) is used in the **interseptal technique** – the elevator is placed in the interseptal bone between adjacent roots (e.g., between roots of a lower molar after sectioning) and rotated using the lever principle to elevate individual roots from their sockets. [Go Back to Q24](#)
- Q25. **Answer: (B)** Current guidelines recommend **continuing low-dose aspirin** (75 mg daily) for dental extraction. Local haemostatic measures (pressure, resorbable haemostatic agents, sutures if needed) are sufficient to control bleeding. Stopping aspirin risks serious cardiovascular events (rebound prothrombotic effect), which outweigh the minor increased bleeding risk. [Go Back to Q25](#)
- Q26. **Answer: (C)** The **greater palatine nerve block** is administered at the **greater palatine foramen**, located approximately 1 cm medial to the gingival margin of the upper third molar, near the junction of the hard palate and the alveolar process. It anaesthetises the hard palate and palatal gingiva from the canine to the third molar. [Go Back to Q26](#)



- Q27. **Answer: (B)** The **nasopalatine nerve block** is administered at the **incisive papilla** (overlying the incisive foramen) in the midline of the hard palate, just posterior to the upper central incisors. It anaesthetises the anterior hard palate and palatal gingiva of the upper incisors and canines bilaterally. [Go Back to Q27](#)
- Q28. **Answer: (C)** The **PSA (posterior superior alveolar) nerve block** anaesthetises the **upper molar teeth**, including their buccal gingiva, except for the mesiobuccal root of the upper first molar (which may receive supply from the middle superior alveolar nerve in approximately 30% of patients). The lower molars, premolars, and incisors are not affected. [Go Back to Q28](#)
- Q29. **Answer: (D)** The **infraorbital nerve block** anaesthetises the terminal branches of the infraorbital nerve, which include: the **upper lip, anterior cheek, lower eyelid, lateral wall of the nose, upper incisors, canine, and premolars** (via anterior superior alveolar and middle superior alveolar branches). [Go Back to Q29](#)
- Q30. **Answer: (A)** Local anaesthetics act by **blocking voltage-gated sodium channels** in their inner (intracellular) aspect. This prevents the influx of sodium ions required for depolarisation of the nerve membrane, thereby blocking nerve conduction (action potential propagation). They do not affect potassium or calcium channels primarily. [Go Back to Q30](#)
- Q31. **Answer: (B)** A local anaesthetic with a **lower pKa** has more molecules in the un-ionised (free base) form at physiological pH (7.4). Only the un-ionised form crosses the lipid nerve membrane; therefore, **lower pKa = faster onset** of anaesthesia. Lignocaine (pKa 7.9) has a faster onset than bupivacaine (pKa 8.1). [Go Back to Q31](#)
- Q32. **Answer: (D)** **Benzocaine 20% gel** is the most commonly used topical anaesthetic in dentistry. It is an ester-type local anaesthetic that is poorly water-soluble and has minimal systemic absorption through mucous membranes, making it safe for topical use. It is effective for mucosal anaesthesia before injections. [Go Back to Q32](#)
- Q33. **Answer: (A)** **EMLA (Eutectic Mixture of Local Anaesthetics)** cream contains **lignocaine 2.5% and prilocaine 2.5%** in a eutectic mixture. The eutectic combination has a lower melting point than either drug alone, allowing both drugs to exist as an oil at room temperature for improved skin penetration. [Go Back to Q33](#)
- Q34. **Answer: (B)** In patients with **severe ischaemic heart disease**, where adrenaline is contraindicated, **felypressin (octapressin)** is the preferred vasoconstrictor alternative. It acts on vasopressin receptors (V1) to cause vasoconstriction without significant cardiovascular stimulation. It is used with prilocaine 3% (Citanest with Octapressin). [Go Back to Q34](#)
- Q35. **Answer: (D)** Adrenaline in local anaesthetic solutions is **absolutely contraindicated** with **non-selective MAO inhibitors (MAOIs)** because MAOIs prevent the breakdown of catecholamines. Co-administration can lead to a dangerous hypertensive crisis due to potentiated sympathomimetic effects of adrenaline. Beta-blockers require caution but are not absolute contraindications. [Go Back to Q35](#)



- Q36. **Answer: (C)** **Lignocaine with adrenaline at the minimum effective dose** is considered the safest choice for pregnant patients when local anaesthesia is required. It is classified as Pregnancy Category B (no proven risk in human studies). The dose of adrenaline should be minimised. Bupivacaine is avoided in late pregnancy due to cardiotoxicity risk. [Go Back to Q36](#)
- Q37. **Answer: (D)** A **field block** deposits anaesthetic solution around **terminal nerve endings near the operative site** (circumferential infiltration around the area to be treated), while a **nerve block** targets a named **nerve trunk at a distance** from the operative site. Infiltration anaesthesia is subepithelial; field block surrounds the area. [Go Back to Q37](#)
- Q38. **Answer: (D)** **Intraosseous injection** (X-tip, Stabident systems) delivers local anaesthetic directly into the **cancellous bone adjacent to the tooth apex**, after creating a small perforation through the cortical bone with a drill. This allows rapid diffusion to the periapical nerve endings, providing profound pulpal anaesthesia for individual teeth. [Go Back to Q38](#)
- Q39. **Answer: (C)** **Intraseptal anaesthesia** is a technique in which local anaesthetic is injected under pressure into the **interdental septum** (the bone between adjacent teeth). The pressure forces solution through cancellous bone to reach the apices, providing both **anaesthesia and haemostasis** (useful in periodontal surgery). [Go Back to Q39](#)
- Q40. **Answer: (A)** The PSA (posterior superior alveolar) block carries the specific complication of **haematoma** in the infratemporal fossa due to puncture of the **pterygoid venous plexus**. This results in a visible/palpable swelling in the cheek region. To minimise this risk, aspiration before injection is essential. [Go Back to Q40](#)
- Q41. **Answer: (C)** Infections originating from the **lower anterior teeth (incisors)** spread primarily to the **sublingual space** because the apices of the lower incisors lie above the mylohyoid muscle attachment. The sublingual space is bounded by the floor of the mouth mucosa superiorly, mylohyoid inferiorly, and mandible laterally. [Go Back to Q41](#)
- Q42. **Answer: (C)** The **masticator space** (containing the masseter, medial pterygoid, lower ramus/posterior mandibular body, and inferior alveolar nerve) is most commonly infected from the **lower third molar**, as its roots lie in close proximity to the masticator space boundaries. [Go Back to Q42](#)
- Q43. **Answer: (D)** The temporal space has **two compartments**: (1) the **superficial temporal space** between the skin/subcutaneous tissue and the superficial layer of temporalis fascia, and (2) the **deep temporal space** between the temporalis muscle and the temporal bone. Both can be involved in spread from masticator space infections. [Go Back to Q43](#)
- Q44. **Answer: (C)** The **parapharyngeal (lateral pharyngeal) space** is bounded medially by the **pharyngeal constrictor muscles and the pharynx**. Laterally it is bounded by the medial pterygoid muscle and parotid gland. Superiorly by the skull base, inferiorly by the hyoid bone. It is a key pathway for deep space infection spread. [Go Back to Q44](#)



- Q45. **Answer: (D)** Actinomycosis of the jaw is caused by **Actinomyces israelii**, a Gram-positive, filamentous, anaerobic-to-microaerophilic organism that is a normal commensal of the oral cavity. It typically causes cervicofacial actinomycosis (lumpy jaw) following trauma, surgery, or dental infection. [Go Back to Q45](#)
- Q46. **Answer: (B)** The pathognomonic histological finding in actinomycosis is **sulfur granules** – yellow colonies of organisms consisting of tangled filaments (Actinomyces) surrounded by a radiating rosette of eosinophilic clubs (Splendore-Hoeppli material). These are visible macroscopically as yellow granules in pus. [Go Back to Q46](#)
- Q47. **Answer: (B)** In the jaw, **acute osteomyelitis** most commonly results from **direct extension of odontogenic infection** (periapical abscess, periodontal disease, post-extraction infection) rather than haematogenous spread (which is more common in children with acute haematogenous osteomyelitis of long bones). [Go Back to Q47](#)
- Q48. **Answer: (A)** A **sequestrum** is a **fragment of necrotic (dead) bone** that has become separated from the surrounding living bone due to ischaemia and infection in osteomyelitis. It appears radiographically as a radiopaque fragment within a radiolucent zone. The **involucrum** is the shell of new bone forming around it. [Go Back to Q48](#)
- Q49. **Answer: (B)** The fundamental principle of incision and drainage (I&D) is to place the incision at the **most dependent portion of the abscess**, allowing gravity to assist drainage. The incision must also be placed to avoid vital structures (nerves, vessels), preferably in a concealed location for cosmesis, and deep enough to penetrate the abscess cavity. [Go Back to Q49](#)
- Q50. **Answer: (C)** For patients with **penicillin allergy (non-anaphylactic)**, **clindamycin** is the recommended first-line alternative for odontogenic infections. Clindamycin has excellent activity against oral streptococci and anaerobes. Metronidazole alone is inadequate for aerobic organisms; tetracyclines have reduced efficacy against streptococci. [Go Back to Q50](#)
- Q51. **Answer: (A)** **Orbital cellulitis** from maxillary dental infection spreads via the **facial vein**, which communicates with the **ophthalmic veins** through angular and supraorbital anastomoses. These valveless veins allow retrograde spread of infection into the orbital fat, causing pre-septal or post-septal (true) orbital cellulitis. [Go Back to Q51](#)
- Q52. **Answer: (D)** Intraoral drainage of a buccal space abscess is achieved via an incision through the **mucosa in the buccal sulcus at the level of the occlusal plane, anterior to the parotid duct opening** (Stensen's duct). This avoids damage to the duct and facial nerve. The incision is carried through the buccinator muscle to enter the buccal space. [Go Back to Q52](#)
- Q53. **Answer: (C)** In the **Rowe and Killey classification** of condylar fractures, a **condylar neck fracture** refers to a fracture through the **neck of the condylar process** (below the condylar head but above the sigmoid notch level). A subcondylar fracture is at the base of the condyle; an intracapsular fracture is through the condylar head. [Go Back to Q53](#)



- Q54. **Answer: (B)** For a **unilateral subcondylar fracture** in an adult with minimal displacement and maintained occlusion, **closed reduction with IMF and early mobilisation** (within 10–14 days) is the preferred treatment. ORIF is reserved for bilateral condylar fractures with malocclusion, significant displacement, or inability to achieve acceptable occlusion with closed treatment. [Go Back to Q54](#)
- Q55. **Answer: (C)** The **Gillies temporal approach** involves a **2–3 cm incision in the hair-bearing temporal scalp**, carrying dissection beneath the superficial layer of deep temporalis fascia, and passing an elevator (Rowe's zygomatic elevator) deep to the fascia and below the depressed zygomatic arch to lever it back into position. [Go Back to Q55](#)
- Q56. **Answer: (A)** A **blow-out fracture of the orbital floor** characteristically produces **diplopia** (particularly on upward gaze due to inferior rectus entrapment), **enophthalmos** (sunken eye due to increased orbital volume), and **infraorbital nerve paraesthesia** (cheek, upper lip, upper teeth numbness). These are the classic triad. [Go Back to Q56](#)
- Q57. **Answer: (D)** In **panfacial fractures**, the recommended sequence is **bottom-up and outside-in**: first establish the mandibular width and height (the stable base), then restore the occlusion (IMF), then reconstruct the midface (zygoma, orbital rims, Le Fort level), then the nasofrontal skeleton. This builds from a stable foundation upward. [Go Back to Q57](#)
- Q58. **Answer: (D)** **Intermaxillary fixation (IMF)** with arch bars is used to **restore and maintain the correct dental occlusion** while fracture union occurs. By holding the upper and lower teeth in the pre-injury occlusion, the fractured bony segments are aligned. IMF is not intended for permanent joint immobilisation, which risks ankylosis. [Go Back to Q58](#)
- Q59. **Answer: (A)** A **Gunning splint** is a prosthetic occlusal splint constructed from impressions of the edentulous arches. It is used in **edentulous patients** with jaw fractures to **provide a surface for fixation** (circummandibular and piriform aperture wires, or screws) in the absence of teeth for arch bars. It acts like an artificial dentition for IMF purposes. [Go Back to Q59](#)
- Q60. **Answer: (B)** The **Keen's approach** (Keen 1909) for zygomatic complex fracture reduction uses an **intraoral incision in the buccal sulcus above the upper second molar** to access the medial surface of the zygoma. An elevator is passed deep to the zygoma to disimpact and elevate it. This is the standard intraoral approach for zygomatic reduction. [Go Back to Q60](#)
- Q61. **Answer: (D)** Frontal sinus fractures involving the **posterior (intracranial) wall** are significant because of the risk of **intracranial complications**: **CSF leak** (rhinorrhoea or from the sinus itself), **pneumocephalus**, **meningitis**, **brain abscess**, and **mucocoele** formation. They require neurosurgical co-management. [Go Back to Q61](#)
- Q62. **Answer: (A)** The **angle of the mandible** is a common fracture site because it is a zone of **structural weakness**: the cross-section changes from the thick body to the thinner ramus, and the presence of a partially erupted or impacted third molar further weakens the bone by reducing cross-sectional bone mass. [Go Back to Q62](#)



- Q63. **Answer: (B)** Definitive reduction of an isolated nasal fracture is best performed **5–7 days after injury**, once the acute swelling has sufficiently resolved to allow accurate assessment and repositioning, but **before fibrous union sets in** (which occurs by approximately 10–14 days). Immediate reduction is unreliable due to swelling obscuring deformity. [Go Back to Q63](#)
- Q64. **Answer: (D)** **Inferior rectus muscle entrapment** in an orbital floor blow-out fracture is confirmed by a **CT scan of the orbit** (showing the muscle herniated or entrapped at the fracture site) combined with a **positive forced duction test** (inability to passively rotate the eye upward under topical anaesthesia, indicating mechanical restriction). [Go Back to Q64](#)
- Q65. **Answer: (C)** Dentigerous cysts are classified by their relationship to the crown of the unerupted tooth: (1) **Central** – fluid accumulation surrounds the crown symmetrically; (2) **Lateral** – fluid accumulates on one side of the crown, partially formed; (3) **Circumferential** – cyst surrounds the entire tooth including part of the root. [Go Back to Q65](#)
- Q66. **Answer: (B)** The **botryoid odontogenic cyst** is a **polycystic (multilocular) variant of the lateral periodontal cyst**, characterised by multiple cystic compartments resembling a bunch of grapes (botryoid). It is lined by thin non-keratinised epithelium with focal epithelial thickenings (plaques) similar to the lateral periodontal cyst. [Go Back to Q66](#)
- Q67. **Answer: (A)** The calcifying odontogenic cyst (Gorlin cyst, CCOT) is characterised histologically by **ghost cells (shadow cells)**: large pale cells that have lost their nuclei but retain their cellular outline, often with **calcification** within or adjacent to these ghost cell masses. The lining epithelium resembles ameloblastoma. [Go Back to Q67](#)
- Q68. **Answer: (D)** The **nasopalatine duct cyst** (incisive canal cyst) appears on periapical radiograph as a **heart-shaped or pear-shaped radiolucency** in the **midline of the anterior hard palate**, between or superior to the roots of the upper central incisors. The heart shape is due to superimposition of the anterior nasal spine. [Go Back to Q68](#)
- Q69. **Answer: (C)** The globulomaxillary cyst was historically classified as a developmental fissural cyst arising at the junction of the globular process and maxillary process. **Current evidence** has discredited the fissural origin; most lesions occurring at the globulomaxillary site are **odontogenic cysts** (usually radicular or lateral periodontal cysts) occurring at that anatomical location. [Go Back to Q69](#)
- Q70. **Answer: (A)** A **traumatic bone cyst** (simple/haemorrhagic bone cyst, solitary bone cyst) on surgical exploration typically reveals an **empty cavity** with **no epithelial lining**, only a thin fibrous connective tissue layer on the bone walls (hence “traumatic” not truly a cyst). Occasionally a small amount of serosanguineous fluid is present. Curettage alone leads to healing. [Go Back to Q70](#)
- Q71. **Answer: (B)** **Carnoy’s solution** (absolute ethanol, chloroform, glacial acetic acid, ferric chloride) is applied to the bone cavity after OKC enucleation. It acts as a **fixative/chemical cauterant** that **destroys residual epithelial remnants**, satellite/daughter cysts, and orthokeratinised epithelium in the bony walls, thereby reducing the recurrence rate. [Go Back to Q71](#)



- Q72. **Answer: (C)** Multiple odontogenic keratocysts in a young patient are a cardinal feature of **Gorlin-Goltz syndrome** (Naevoid Basal Cell Carcinoma syndrome, NBCCS), caused by a mutation in the PTCH1 gene. Other features include multiple basal cell carcinomas, calcification of the falx cerebri, bifid ribs, and skeletal anomalies. [Go Back to Q72](#)
- Q73. **Answer: (A)** An **eruption cyst** is a soft-tissue variant of the dentigerous cyst that **develops in the soft tissue (gingival) overlying the crown of an erupting tooth**, rather than within the alveolar bone. It appears as a blue-purple fluctuant swelling on the alveolar ridge in children. Most resolve spontaneously with tooth eruption. [Go Back to Q73](#)
- Q74. **Answer: (B)** Differentiating a **unicystic ameloblastoma from a dentigerous cyst** requires **histopathological examination** because they can appear **identical radiographically** (both present as a unilocular radiolucency associated with the crown of an unerupted tooth). Ameloblastic epithelium in the cyst wall confirms unicystic ameloblastoma. [Go Back to Q74](#)
- Q75. **Answer: (A)** Odontogenic myxoma typically shows a **multilocular radiolucency** with a “tennis racket” or “soap bubble” pattern, characterised by bony septa that cross at right angles forming small rectangular compartments. It has no cortical border and tends to expand the jaw. It is the third most common odontogenic tumour. [Go Back to Q75](#)
- Q76. **Answer: (D)** Compound odontoma is characterised by **multiple small toothlike structures (denticles)** arranged in an organised manner (resembling miniature teeth), most commonly found in the **anterior maxilla**. Radiographically, numerous denticles surrounded by a radiolucent rim (follicular space) within a radiopaque mass are seen. [Go Back to Q76](#)
- Q77. **Answer: (B)** Complex odontoma differs from compound odontoma in that it is a **disorganised mass of dental hard tissues** (enamel, dentine, cementum, pulp) without any recognisable tooth structure. It is most common in the **posterior mandible** and appears as a mixed radiopaque/radiolucent mass with a radiolucent rim. [Go Back to Q77](#)
- Q78. **Answer: (C)** Central cemento-ossifying fibroma (CCOF) is a **benign fibro-osseous lesion** consisting of fibrous stroma with woven bone and/or cementum-like deposits. Radiographically it shows a **mixed radiolucent/radiopaque pattern** with a **well-defined sclerotic rim**. It is most common in the mandible of young women in the third and fourth decades. [Go Back to Q78](#)
- Q79. **Answer: (B)** Cementoblastoma appears radiographically as a **well-defined periapical radiopacity fused to the root** of a vital tooth, surrounded by a characteristic **thin radiolucent rim** (which represents the compressed periodontal ligament space). It is the only odontogenic tumour with direct fusion to the tooth root. [Go Back to Q79](#)
- Q80. **Answer: (A)** Ameloblastic fibroma is a true mixed odontogenic tumour containing **proliferating odontogenic epithelium** (resembling early enamel organ) in a **primitive ectomesenchymal stroma** (resembling dental papilla). No hard tissue is formed. It occurs predominantly in **children and young adults** (mean age ~15 years) and has a predilection for the posterior mandible. [Go Back to Q80](#)



- Q81. **Answer: (C)** The **squamous odontogenic tumour (SOT)** arises from **rests of Malassez** within the periodontal ligament. It characteristically occurs in the **lateral periodontal region** (along the lateral root surface), causing triangular radiolucency along the root. It is a rare, benign tumour treated by local excision. [Go Back to Q81](#)
- Q82. **Answer: (B)** In the WHO 2017 classification of head and neck tumours, the **calcifying cystic odontogenic tumour (CCOT)** was reclassified from the term “Gorlin cyst” to reflect its **neoplastic behaviour**. The word “cyst” was replaced by “tumour” because it demonstrates proliferative epithelium, ghost cells, and calcifications consistent with a benign neoplasm rather than a simple developmental cyst. [Go Back to Q82](#)
- Q83. **Answer: (D)** **Wilkes Stage I** represents **early internal derangement**: disc displacement **with reduction** (reciprocal click) but **without pain** and without significant anatomical changes in the disc or condyle. It is the mildest stage and often managed conservatively with reassurance and dietary modification. [Go Back to Q83](#)
- Q84. **Answer: (B)** **Wilkes Stage II** is characterised by **occasional pain, intermittent locking** (the click may disappear with locking), and **slight anatomical changes** in the disc (beginning disc deformation). This distinguishes it from Stage I (no pain, no locking) and Stage III (established displacement without reduction). [Go Back to Q84](#)
- Q85. **Answer: (D)** The TMJ disc is composed of **dense fibrocartilage (fibrous connective tissue with collagen fibres)**, is **biconcave** in shape (the thinner intermediate zone is the load-bearing area), and is **avascular and aneural** in the central zone (making it resistant to pain and providing nutrition by synovial fluid diffusion). [Go Back to Q85](#)
- Q86. **Answer: (A)** **MRI (Magnetic Resonance Imaging)** is the gold standard for evaluating the TMJ disc because it provides excellent **soft tissue contrast** for visualising disc position, morphology, signal changes (degeneration), and effusion without ionising radiation. CT is better for bony changes; OPG shows only condylar shape and bone. [Go Back to Q86](#)
- Q87. **Answer: (D)** **Modified condylotomy** is an **intraoral sagittal split osteotomy** of the condylar process (similar to BSSRO but limited to the condylar region). By allowing the condyle to move anteriorly and inferiorly on healing, it **decompresses the retrodiscal tissue and allows the disc to recapture its normal position**. It avoids opening the joint directly. [Go Back to Q87](#)
- Q88. **Answer: (C)** **Myofascial pain dysfunction syndrome (MPD)** is a **functional disorder** characterised by **muscle tenderness** (especially of masticatory muscles), **limited or painful jaw movement**, and **absence of significant joint changes or radiographic abnormality**. It is the most common cause of facial pain mimicking TMJ disease and is managed with splints, physiotherapy, and stress reduction. [Go Back to Q88](#)
- Q89. **Answer: (C)** **Bruxism** management in a patient with TMJ involvement primarily involves an **occlusal stabilisation splint** (hard acrylic night guard) to **reduce parafunctional loading** on the TMJ and masticatory muscles, distribute forces evenly, and prevent wear. Botulinum toxin may be used as an adjunct but is not the primary first-line treatment. [Go Back to Q89](#)



- Q90. **Answer: (A)** TMJ arthroscopy provides direct visualisation of the **superior joint space** (between the disc and the articular eminence). Procedures performed include **lysis of adhesions, lavage (arthrocentesis)**, biopsy, disc repositioning with sutures, and synovectomy. The superior space is more accessible and clinically relevant than the inferior space. [Go Back to Q90](#)
- Q91. **Answer: (A)** Osseous genioplasty for chin advancement involves a **horizontal osteotomy of the chin symphysis below the mental foramina** (to protect the mental nerves). The freed chin segment is advanced anteriorly by the desired amount and **fixed with titanium plates and screws**. This allows three-dimensional repositioning (advancement, reduction, asymmetry correction, vertical change). [Go Back to Q91](#)
- Q92. **Answer: (C)** The **SNA angle** measures the sagittal position of the maxilla relative to the cranial base (Sella-Nasion line to Point A). The **normal value is 82 ± 2 degrees**. An SNA > 84 degrees indicates maxillary prognathism; an SNA < 80 degrees indicates maxillary retrognathism. [Go Back to Q92](#)
- Q93. **Answer: (D)** The **ANB angle** is the difference between the SNA and SNB angles, representing the sagittal relationship between the maxilla and mandible. A **skeletal Class I** relationship is indicated by an ANB of 2 ± 2 degrees (range approximately 0–4 degrees). ANB > 4 degrees indicates Class II; ANB < 0 degrees indicates Class III. [Go Back to Q93](#)
- Q94. **Answer: (A)** In Delaire's architectural and structural craniofacial analysis, the primary reference is the **cranial base axis** drawn from **nasion to basion**. From this structural axis, Delaire derives lines representing the ideal positions of the facial skeleton components (maxilla, mandible) and identifies their deviations from the architectural norm. [Go Back to Q94](#)
- Q95. **Answer: (B)** Alloplastic chin augmentation (silicone implant) is **best suited for mild-to-moderate horizontal augmentation only**. It cannot correct vertical excess or deficiency, cannot correct significant chin asymmetry, and cannot provide setback. Osseous genioplasty is required for these three-dimensional corrections. The implant is placed over the anterior symphysis via an intraoral approach. [Go Back to Q95](#)
- Q96. **Answer: (A)** Intraseptal alveoloplasty is performed by **removing the interdental and interradicular bone** within and between the extraction sockets after tooth removal, then **compressing the cortical plates inward** to achieve a smoother, narrower ridge. It preserves the labial cortical plate, making it less invasive than radical alveoloplasty. [Go Back to Q96](#)
- Q97. **Answer: (D)** Radical (Dean's) alveoloplasty is a more aggressive procedure involving **removal of the labial cortical plate** (in addition to the interdental septa) to achieve significant ridge reduction. It is used when there is gross alveolar irregularity. It results in greater bone loss than intraseptal alveoloplasty and is reserved for cases requiring major ridge reshaping. [Go Back to Q97](#)
- Q98. **Answer: (D)** Tuberosity reduction is indicated when the **maxillary tuberosity is excessively enlarged** (due to fibrous hyperplasia or bony enlargement), causing **insufficient interarch space** between the tuberosity and the retromolar pad of the mandible. Without adequate



inter-arch clearance, a complete denture cannot be constructed to the required thickness. [Go Back to Q98](#)

Q99. **Answer: (C)** For a patient with suspected **angina pectoris** (crushing chest pain) in the dental chair, the **immediate management** is: **stop treatment**, sit the patient **upright** (not supine, as lying flat worsens cardiac demand), administer **GTN (glyceryl trinitrate) 400 mcg sublingually**, give supplemental **oxygen**, and **call emergency services**. [Go Back to Q99](#)

Q100. **Answer: (B)** During an **epileptic seizure** in the dental chair: **do NOT restrain the patient** or place objects in the mouth (risks dental/jaw fracture). The correct management is to **protect from injury** (lower to floor, remove sharp objects), **clear the airway**, place in the **recovery position after seizure cessation**, and administer **IV or IM midazolam** if seizure persists beyond **5 minutes** (status epilepticus). [Go Back to Q100](#)

Answer Key – NEET MDS Oral and Maxillofacial Surgery Sample Paper 2

Answer Key

Q1:A	Q2:A	Q3:C	Q4:C	Q5:D
Q6:D	Q7:A	Q8:D	Q9:B	Q10:B
Q11:C	Q12:A	Q13:B	Q14:A	Q15:B
Q16:C	Q17:A	Q18:C	Q19:C	Q20:D
Q21:A	Q22:B	Q23:B	Q24:D	Q25:B
Q26:C	Q27:B	Q28:C	Q29:D	Q30:A
Q31:B	Q32:D	Q33:A	Q34:B	Q35:D
Q36:C	Q37:D	Q38:D	Q39:C	Q40:A
Q41:C	Q42:C	Q43:D	Q44:C	Q45:D
Q46:B	Q47:B	Q48:A	Q49:B	Q50:C
Q51:A	Q52:D	Q53:C	Q54:B	Q55:C
Q56:A	Q57:D	Q58:D	Q59:A	Q60:B
Q61:D	Q62:A	Q63:B	Q64:D	Q65:C
Q66:B	Q67:A	Q68:D	Q69:C	Q70:A
Q71:B	Q72:C	Q73:A	Q74:B	Q75:A
Q76:D	Q77:B	Q78:C	Q79:B	Q80:A
Q81:C	Q82:B	Q83:D	Q84:B	Q85:D
Q86:A	Q87:D	Q88:C	Q89:C	Q90:A
Q91:A	Q92:C	Q93:D	Q94:A	Q95:B
Q96:A	Q97:D	Q98:D	Q99:C	Q100:B

