

NEET MDS Oral and Maxillofacial Surgery Sample Paper – 1

Duration: 90 Minutes

Maximum Marks: 400

Instructions

- This paper contains **100** Multiple Choice Questions (Single Correct Answer), modelled on the Oral and Maxillofacial Surgery portion of **NEET MDS** entrance.
- Each correct answer carries **+4 marks**. There is **-1 mark** for each incorrect answer. Unattempted questions carry 0 marks.
- Only **one** option is correct per question. Choose carefully.
- Syllabus level: **BDS curriculum (DCI) – Oral and Maxillofacial Surgery**
- Use of mobile phones, calculators, or electronic gadgets is strictly prohibited.

Section: Oral and Maxillofacial Surgery (Q1–Q100)

Third Molar Impaction (Q1–Q15)

Q1. A 25-year-old male presents for removal of a lower right third molar. The OPG shows the long axis of the impacted tooth running **parallel** to the long axis of the second molar. According to Winter's classification, this impaction is:

- (A) Vertical
- (B) Mesioangular
- (C) Distoangular
- (D) Horizontal

Q2. In Pell-Gregory classification of mandibular third molar impaction, a tooth where the crown lies at or above the occlusal plane AND the



mesiodistal space between the distal of second molar and the anterior ramus border equals (or exceeds) the mesiodistal crown width is classified as:

- (A) Class I, Position A
- (B) Class II, Position A
- (C) Class I, Position B
- (D) Class II, Position B

Q3. Pell-Gregory classification of impacted mandibular third molars uses Class I, II, and III to describe:

Class I	Class II	Class III
Space $\geq$ crown width	Space $<$ crown width	Tooth within ramus

Which of the above correctly defines Class II?

- (A) Adequate space and crown above the occlusal plane
- (B) Crown entirely within the ramus
- (C) Available space between anterior ramus border and distal of second molar is less than the mesiodistal crown diameter
- (D) Occlusal surface at the level of the cervical line of the second molar

Q4. A mandibular third molar classified as Pell-Gregory Class II, Position B has its occlusal surface:

- (A) Above the occlusal plane, with adequate ramus space
- (B) Below the cervical line of the second molar, with adequate ramus space
- (C) Between the occlusal plane and the cervical line of the second molar, with inadequate ramus space
- (D) Entirely within the ramus, below the cervical line

Q5. Which of the following is the MOST COMMON post-operative complication following surgical removal of an impacted mandibular third molar?



- (A) Inferior alveolar nerve paraesthesia
- (B) Oroantral fistula
- (C) Pathological fracture of the mandible
- (D) Alveolar osteitis (dry socket)

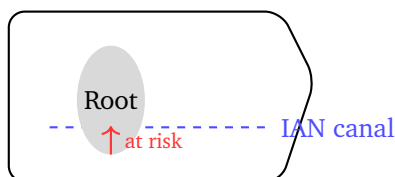
Q6. A 28-year-old patient returns 3 days after mandibular third molar surgical extraction complaining of severe throbbing pain radiating to the ear. The socket appears empty with bare bone visible and a foul odour is noted. The MOST LIKELY diagnosis is:

- (A) Acute osteomyelitis
- (B) Pericoronitis of the adjacent second molar
- (C) Ludwig's angina
- (D) Alveolar osteitis (dry socket)

Q7. Winter's classification of impacted mandibular third molars is based on the relationship of the long axis of the impacted tooth to the long axis of the:

- (A) Adjacent second molar
- (B) Mandibular canal
- (C) Occlusal plane
- (D) Anterior border of ramus

Q8. During surgical sectioning of an impacted mandibular third molar with deeply curved roots close to the mandibular canal, the MOST IMPORTANT structure to protect is:



- (A) Buccal long nerve
- (B) Facial nerve (VII)



- (C) Lingual plate of bone
- (D) Inferior alveolar nerve

Q9. In Pell-Gregory classification, Position B indicates that the occlusal surface of the impacted mandibular third molar is:

- (A) At or above the occlusal plane of the second molar
- (B) Between the occlusal plane and the cervical line of the second molar
- (C) Below the cervical line of the second molar
- (D) At the level of the inferior alveolar canal

Q10. The most common angulation of impacted mandibular third molar, accounting for approximately 43% of cases, is:

- (A) Distoangular
- (B) Mesioangular
- (C) Vertical
- (D) Horizontal

Q11. During removal of a deeply impacted maxillary third molar, the vessel most at risk of causing severe post-operative haemorrhage (particularly if the tooth is displaced posteriorly into the infratemporal fossa) is the:

- (A) Inferior alveolar artery
- (B) Greater palatine artery
- (C) Pterygoid venous plexus
- (D) Superficial temporal artery

Q12. On an OPG, darkening of the root of an impacted mandibular third molar at the point where it crosses the mandibular canal indicates:

- (A) Intimate relationship of root apices with the inferior alveolar canal
- (B) Root dilaceration at that point
- (C) Periapical pathology with granuloma



(D) Cystic changes around the root

Q13. Which of the following is the LEAST ACCEPTED indication for prophylactic removal of an asymptomatic impacted mandibular third molar?

- (A) Recurrent pericoronitis (≥ 2 episodes)
- (B) Asymptomatic, fully covered, in an otherwise healthy young adult with no adjacent pathology
- (C) Resorption of the adjacent second molar root
- (D) Required to facilitate orthodontic treatment

Q14. An “inverted” impacted mandibular third molar is one in which:

- (A) The crown faces apically and the roots face coronally (tooth is upside down)
- (B) The tooth is displaced lingually
- (C) The crown lies entirely within the ramus
- (D) The tooth is horizontal with the crown facing the buccal cortex

Q15. In Pell-Gregory classification, if the distance between the anterior border of the mandibular ramus and the distal surface of the second molar equals the mesiodistal width of the third molar crown, the tooth is classified as:

- (A) Class II
- (B) Class I
- (C) Class III
- (D) Position A

Exodontia and Surgical Extraction (Q16–Q25)

Q16. For routine forceps extraction of a maxillary molar, the CORRECT sequence of primary movements is:



- (A) Rotational movement → buccal pressure → palatal pressure → traction
- (B) Palatal → buccal → figure-8 rotation → traction
- (C) Apical pressure to expand the socket → buccal-palatal luxation → traction
- (D) Traction → buccal → palatal → apical pressure

Q17. The PRIMARY force applied at the beginning of forceps extraction is:

- (A) Apical pressure to compress and expand the socket
- (B) Lateral (buccal/lingual) force
- (C) Rotational force
- (D) Traction (pulling away from socket)

Q18. Alveolar osteitis (dry socket) is MOST COMMONLY associated with extraction of which tooth?

- (A) Maxillary first premolar
- (B) Maxillary third molar
- (C) Mandibular third molar
- (D) Mandibular first molar

Q19. A patient develops PRIMARY haemorrhage immediately after tooth extraction. The FIRST-LINE local management is:

- (A) IV vitamin K administration
- (B) Suturing of the socket margins
- (C) Pressure pack with gauze for 20–30 minutes
- (D) Bone wax application to socket walls

Q20. A patient who had a lower molar extracted 6 hours earlier returns with renewed bleeding from the socket. The vasoconstrictor in the local anaesthetic has worn off. This type of haemorrhage is classified as:



- (A) Primary haemorrhage
- (B) Secondary haemorrhage
- (C) Intermediary haemorrhage
- (D) Reactionary haemorrhage

Q21. “Socket preservation” (ridge preservation) following tooth extraction primarily aims to:

- (A) Maintain alveolar bone volume at the extraction site for future implant placement
- (B) Promote immediate socket re-epithelialization
- (C) Prevent post-extraction infection
- (D) Provide haemostasis after extraction

Q22. A patient with uncontrolled diabetes (fasting blood glucose 320 mg/dL) requires multiple extractions. The MOST important pre-operative consideration is:

- (A) Prophylactic antibiotic cover for 7 days before extraction
- (B) Blood glucose optimisation to an acceptable level before elective surgery
- (C) Use of general anaesthesia to avoid stress of local anaesthesia
- (D) Avoiding adrenaline-containing local anaesthetics

Q23. Complete epithelialization of an extraction socket following routine tooth extraction occurs in approximately:

- (A) 1–2 weeks
- (B) 3–4 weeks
- (C) 8–10 weeks
- (D) 16–20 weeks

Q24. In designing a mucoperiosteal flap for surgical extraction, the base of the flap must be WIDER than its free margin primarily to:



- (A) Improve visibility during surgery
- (B) Minimise intra-operative bleeding
- (C) Facilitate suturing at closure
- (D) Ensure adequate blood supply to the flap

Q25. “Trismus” following tooth extraction or inferior alveolar nerve block refers to:

- (A) Persistent post-extraction haemorrhage
- (B) Limitation of mouth opening due to masticatory muscle spasm
- (C) Infection of the extraction socket
- (D) Paraesthesia of the lower lip

Local Anaesthesia (Q26–Q40)

Q26. The maximum recommended dose of lignocaine WITH adrenaline (epinephrine) in a healthy adult is:

- (A) 3 mg/kg; maximum 200 mg
- (B) 4.5 mg/kg; maximum 300 mg
- (C) 7 mg/kg; maximum 500 mg
- (D) 10 mg/kg; maximum 600 mg

Q27. The conventional landmark for the Inferior Alveolar Nerve Block (IANB) injection is the:

- (A) Posterior border of the mandibular ramus
- (B) Pterygomandibular raphe at the level of the coronoid notch (6–10 mm above the mandibular occlusal plane)
- (C) Lower border of the zygomatic arch
- (D) Sigmoid notch

Q28. The Akinosi-Vazirani (closed-mouth) mandibular block technique is SPECIFICALLY indicated when the patient has:



- (A) Coagulation disorder requiring minimal needle insertions
- (B) Hypertension contraindicating vasoconstrictor
- (C) Trismus limiting mouth opening
- (D) Allergy to amide local anaesthetics

Q29. The Gow-Gates mandibular nerve block differs from the conventional IANB in that it deposits local anaesthetic at the:

- (A) Mental foramen level
- (B) Pterygomandibular space
- (C) Inferior alveolar canal entry
- (D) Condylar neck level, anaesthetising the entire mandibular division of the trigeminal nerve

Q30. The reversal agent for benzodiazepine overdose during intravenous sedation in the dental chair is:

- (A) Flumazenil
- (B) Naloxone
- (C) Neostigmine
- (D) Atropine

Q31. During an IANB injection, bone is contacted before the needle reaches the recommended depth. The CORRECT interpretation and corrective action is:

- (A) Deposit the solution at the current position
- (B) The needle has contacted the medial ramus surface anteriorly; withdraw partially and redirect the syringe barrel more posteriorly
- (C) Reduce the dose by 50%
- (D) Switch immediately to the Akinosi technique



- Q32.** A patient suddenly develops pallor, bradycardia, sweating, and brief loss of consciousness within 30 seconds of IANB injection. Blood pressure is 90/60 mmHg. The MOST LIKELY cause is:
- (A) Systemic local anaesthetic toxicity
 - (B) Anaphylaxis to the local anaesthetic
 - (C) Intravascular injection of adrenaline
 - (D) Vasovagal syncope
- Q33.** Mental nerve block anaesthetises which of the following structures?
- (A) Lower lip, chin, and buccal gingiva of lower premolars and anterior teeth
 - (B) Lingual gingiva of the mandibular teeth
 - (C) All mandibular teeth on the ipsilateral side
 - (D) Ipsilateral anterior two-thirds of tongue
- Q34.** Among the following local anaesthetics, which has the LONGEST duration of pulpal anaesthesia?
- (A) Lignocaine 2% with adrenaline
 - (B) Bupivacaine 0.5% with adrenaline
 - (C) Mepivacaine 3%
 - (D) Prilocaine 4% plain
- Q35.** Methaemoglobinaemia as a toxicity of local anaesthetic is classically associated with:
- (A) Lignocaine
 - (B) Bupivacaine
 - (C) Mepivacaine
 - (D) Prilocaine (and benzocaine)



- Q36.** The purpose of adding a vasoconstrictor (adrenaline) to a local anaesthetic solution is to:
- (A) Decrease the duration of anaesthesia
 - (B) Increase systemic absorption to improve onset
 - (C) Slow local absorption, thereby prolonging duration and reducing peak plasma concentration
 - (D) Directly block sodium channels more effectively
- Q37.** A patient gives a history of allergy to procaine. The SAFEST alternative local anaesthetic for dental use is:
- (A) Benzocaine
 - (B) Tetracaine
 - (C) Chloroprocaine
 - (D) Lignocaine (an amide; no cross-reactivity with ester class)
- Q38.** A patient develops convulsions 3 minutes after receiving a large volume of local anaesthetic for a mandibular nerve block, followed by cardiovascular collapse. The diagnosis is:
- (A) Vasovagal syncope
 - (B) Anaphylactic shock
 - (C) Hypoglycaemic episode
 - (D) Systemic local anaesthetic toxicity (LAST)
- Q39.** The concentration of adrenaline (epinephrine) most commonly used in dental local anaesthetic cartridges in India is:
- (A) 1:10,000
 - (B) 1:200,000
 - (C) 1:80,000
 - (D) 1:50,000



- Q40.** During a conventional IANB, the lingual nerve is also anaesthetised because:
- (A) The lingual nerve lies anterior to the inferior alveolar nerve in the pterygomandibular space and is reached by diffusion of the deposited local anaesthetic
 - (B) The lingual nerve is a branch of the inferior alveolar nerve and is blocked at the same point
 - (C) A separate lingual injection is always given as part of IANB
 - (D) The lingual nerve passes through the mandibular foramen with the inferior alveolar nerve

Orofacial Infections (Q41–Q52)

- Q41.** Ludwig's angina is defined as a bilateral, rapidly spreading cellulitis involving which combination of fascial spaces?
- (A) Bilateral buccal and masseteric spaces
 - (B) Parapharyngeal and retropharyngeal spaces
 - (C) Bilateral sublingual and submandibular spaces, plus the submental space
 - (D) Pterygomandibular and parapharyngeal spaces
- Q42.** The fascial space MOST commonly infected from the apex of a mandibular first molar (whose roots extend below the mylohyoid line) is the:
- (A) Buccal space
 - (B) Submasseteric space
 - (C) Submandibular space
 - (D) Sublingual space
- Q43.** Cavernous sinus thrombosis as a complication of odontogenic infection most commonly arises from infections of the:



- (A) Mandibular molar region spreading superiorly via the masseteric space
- (B) Pericoronitis of the mandibular third molar
- (C) Lateral pharyngeal space
- (D) Maxillary anterior or premolar teeth spreading via the facial vein (angular vein), which drains into the cavernous sinus

Q44. In Ludwig's angina, the CRITICAL sign that indicates imminent airway obstruction is:

- (A) Trismus
- (B) Indurated swelling of the floor of mouth
- (C) Elevation and posterior displacement of the tongue
- (D) High-grade fever and rigors

Q45. The appropriate site for EXTRAORAL incision and drainage of a buccal space abscess is:

- (A) Along the anterior border of the masseter muscle
- (B) Through the buccal sulcus mucosa intraorally
- (C) At the lower border of the mandible
- (D) 2–3 cm inferior to the zygomatic arch, with a horizontal incision parallel to it, at the point of maximum fluctuation

Q46. The bacterium MOST commonly isolated in mixed odontogenic infections is:

- (A) Staphylococcus aureus
- (B) Streptococcus viridans (alpha-haemolytic streptococci, Streptococcus milleri group)
- (C) Escherichia coli
- (D) Pseudomonas aeruginosa



- Q47.** Trismus in a patient with pericoronitis of the mandibular third molar is PRIMARILY caused by:
- (A) Oedema of the masseter only
 - (B) Spread of infection or inflammatory mediators to the pterygomandibular and masseteric spaces, causing reflex muscle spasm
 - (C) Direct injury to the temporomandibular joint
 - (D) Swelling of the pterygomandibular raphe alone
- Q48.** The FIRST-LINE antibiotic for an acute odontogenic infection in a patient with no penicillin allergy is:
- (A) Amoxicillin 500 mg TDS
 - (B) Erythromycin 500 mg QDS
 - (C) Metronidazole 400 mg TDS (alone)
 - (D) Clindamycin 300 mg TDS
- Q49.** Necrotizing fasciitis of the head and neck is distinguished from ordinary fascial space infections by:
- (A) Excellent response to antibiotic therapy alone
 - (B) Extensive necrosis of the superficial fascia with rapid spread, systemic toxaemia, and high mortality requiring aggressive surgical debridement
 - (C) Involvement limited to a single fascial space
 - (D) Causation exclusively by anaerobic organisms
- Q50.** Which fascial space serves as the primary pathway for descending cervical infections to spread into the mediastinum?
- (A) Submandibular space
 - (B) Lateral pharyngeal space
 - (C) Retropharyngeal space (and danger space)
 - (D) Parotid space



Q51. Pericoronitis is defined as inflammation of the pericoronal soft tissue (operculum) overlying:

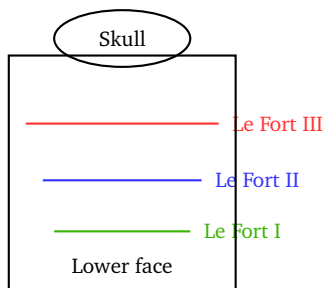
- (A) A partially erupted tooth, most commonly the mandibular third molar
- (B) An exposed root surface following gingival recession
- (C) The walls of a dry socket after extraction
- (D) A dentigerous cyst lining

Q52. The MOST important initial treatment of an acute dentoalveolar abscess is:

- (A) Seven-day course of systemic antibiotics before any surgical intervention
- (B) Hot saline rinses and analgesics
- (C) Analgesics only until spontaneous drainage occurs
- (D) Surgical drainage (incision and drainage or extraction of the causative tooth)

Maxillofacial Fractures (Q53–Q64)

Q53. A patient presents after a road-traffic accident with bilateral periorbital ecchymosis (“racoon eyes”), bilateral subconjunctival haemorrhage, CSF rhinorrhoea, and complete mobility of the entire midface. The diagnosis is:



- (A) Zygomatic complex fracture
- (B) Le Fort I fracture
- (C) Le Fort III fracture (craniofacial dysjunction)



(D) Nasal bone fracture

Q54. Le Fort II (pyramidal) fracture passes through the:

- (A) Pterygoid plates and the base of the zygoma (zygomatic arch)
- (B) Nasal bones, lacrimal bones, orbital floor and medial wall, and pterygoid plates – producing a pyramidal mobile segment
- (C) Nasal floor at pyriform aperture level, separating only the upper alveolus
- (D) Zygomaticofrontal suture and infraorbital rim only

Q55. The distinguishing clinical feature of a Le Fort I fracture compared with Le Fort II and III is:

- (A) Mobility of the entire midface including the zygomatic bones
- (B) Bilateral infraorbital anaesthesia
- (C) Mobility of only the upper alveolar block (hard palate + upper teeth) at the level of the pyriform aperture, without movement of the rest of the midface
- (D) Fracture through the zygomaticofrontal suture

Q56. The correct clinical method to test for a Le Fort I (“Guerin’s”) fracture is:

- (A) Grasp the upper anterior alveolus firmly and attempt antero-posterior movement while the other hand stabilises the skull
- (B) Check for a step deformity at the infraorbital rim
- (C) Assess mobility of the zygomatic bone
- (D) Perform tonometry to assess intraocular pressure

Q57. The “tripod” (trimalar) fracture of the zygomatic complex involves fractures at three sites:

- (A) Three points on the body of the zygomatic bone



- (B) Zygomaticofrontal suture, infraorbital rim, and zygomaticomaxillary buttress
- (C) Zygomatic arch, orbital floor, and lateral orbital wall alone
- (D) Zygomaticofrontal suture, zygomaticomaxillary buttress, and zygomatic arch

Q58. Epistaxis occurring in midface fractures arises PRIMARILY from injury to which vessels?

- (A) The cavernous sinus only
- (B) The middle meningeal artery
- (C) The anterior ethmoidal artery alone
- (D) The sphenopalatine artery and anterior ethmoidal vessels

Q59. Kazanjian's method for managing condylar fractures of the mandible involves:

- (A) Intermaxillary fixation (IMF) with elastic traction (closed reduction)
- (B) Open reduction and internal fixation (ORIF) with mini-plates
- (C) Condylectomy with immediate reconstruction
- (D) Subcondylar resection

Q60. The BEST radiographic view for evaluating an isolated zygomatic arch fracture is the:

- (A) Posteroanterior (PA) mandible view
- (B) Submentovertex (SMV / jug-handle) view
- (C) Orthopantomogram (OPG)
- (D) Waters' view (occipitomental 30°)

Q61. The primary factor determining displacement of mandibular fracture segments is:

- (A) The force of impact alone



- (B) The direction of the fracture line alone
- (C) Haematoma and oedema
- (D) The pull of attached muscles and the vector of their forces on each fragment

Q62. Champy's principle for miniplate fixation of mandibular fractures uses monocortical screws along "ideal lines of osteosynthesis" that correspond to the:

- (A) Lines of maximum tension on the mandible during function
- (B) Lines of maximum compression on the mandible
- (C) Midline of the cortical bone thickness
- (D) The inferior border of the mandible exclusively

Q63. A patient with bilateral condylar fractures characteristically presents with:

- (A) Deviation of the mandible to the contralateral (unaffected) side
- (B) Anterior open bite with bilateral premature posterior occlusal contact and retrognathia
- (C) Inability to move the mandible to the contralateral side
- (D) Normal occlusion in most cases

Q64. The Spiessl classification (Types I–VI) is used to describe fractures of the:

- (A) Zygomatic complex
- (B) Nasal bones
- (C) Orbital floor (blow-out fractures)
- (D) Condylar and subcondylar region of the mandible

Jaw Cysts (Q65–Q74)

Q65. The WHO 2017 classification reclassified "Keratocystic Odontogenic Tumour (KCOT)" back to "Odontogenic Keratocyst (OKC)" because:



- (A) It no longer recurs after adequate treatment
- (B) It has no epithelial lining
- (C) Sufficient evidence for true neoplastic behaviour was lacking; it is now classified as a developmental odontogenic cyst
- (D) It is always unilocular and shows no bone expansion

Q66. The histopathological epithelial lining of an Odontogenic Keratocyst (OKC) is CHARACTERISTICALLY:

- (A) Non-keratinized stratified squamous epithelium without a basal layer
- (B) Thin (6–8 cell) parakeratinized stratified squamous epithelium with a corrugated (wavy) luminal surface and palisaded columnar basal cells
- (C) Pseudostratified columnar (respiratory) epithelium
- (D) Orthokeratinized epithelium with a prominent granular cell layer

Q67. The MOST COMMON odontogenic cyst is the:

- (A) Radicular (periapical) cyst
- (B) Dentigerous (follicular) cyst
- (C) Odontogenic keratocyst (OKC)
- (D) Lateral periodontal cyst

Q68. The dentigerous (follicular) cyst is MOST COMMONLY associated with:

- (A) Vital teeth with periapical pathology
- (B) Root remnants after extraction
- (C) Non-vital maxillary anterior teeth
- (D) An unerupted (impacted) tooth, most commonly the mandibular third molar

Q69. For a large radicular cyst (> 2 cm) in the maxillary anterior region, the CORRECT sequence of management is:



- (A) Extraction of the offending tooth only; no further treatment
- (B) Immediate enucleation without addressing the causative tooth
- (C) Root canal treatment of the causative tooth, followed by surgical enucleation (with or without preceding marsupialization for very large cysts)
- (D) Extraction of the tooth followed by immediate implant placement

Q70. The HIGH RECURRENCE RATE of OKC after simple enucleation is attributed PRIMARILY to:

- (A) Thin, friable lining that fragments during removal, leaving residual epithelium; and satellite (daughter) cysts in the fibrous wall
- (B) The cyst being always associated with an unerupted tooth
- (C) Universal presence of infection at the time of surgery
- (D) Bony involvement extending to the inferior alveolar canal

Q71. Gorlin-Goltz syndrome (Basal Cell Naevus syndrome) includes which combination of features?

- (A) Multiple dentigerous cysts, basal cell carcinoma, and calcified falx cerebri
- (B) Multiple OKCs, multiple basal cell naevi, skeletal anomalies (bifid ribs), and calcified falx cerebri
- (C) Multiple radicular cysts, pigmented naevi, and tentorial calcifications
- (D) Single OKC always associated with basal cell carcinoma

Q72. Marsupialization (Partsch I procedure) is preferred over enucleation when the jaw cyst is:

- (A) Small (< 1 cm) and easily accessible
- (B) Acutely infected and fluctuant
- (C) Large, and complete enucleation would risk damage to vital structures such as unerupted teeth or the inferior alveolar nerve



(D) Known to have a high recurrence rate (e.g. OKC) – to reduce recurrence

Q73. Stafne's bone cyst (static bone cavity / idiopathic bone cavity) differs from true jaw cysts in that it:

- (A) Has no epithelial lining; it represents a normal anatomic concavity on the lingual surface of the mandible, usually containing submandibular salivary gland tissue, requiring no treatment
- (B) Has a thin parakeratinized epithelial lining similar to OKC
- (C) Is always associated with an unerupted tooth
- (D) Requires enucleation and curettage

Q74. A 16-year-old presents with a multilocular radiolucency at the posterior mandible with thinned cortex. Aspiration under pressure yields a straw-coloured fluid and the lining is thin and friable. The MOST LIKELY diagnosis is:

- (A) Dentigerous cyst
- (B) Odontogenic keratocyst (OKC)
- (C) Solid ameloblastoma
- (D) Aneurysmal bone cyst

Odontogenic Tumours (Q75–Q82)

Q75. The MOST COMMON clinically significant benign odontogenic tumour with locally aggressive behaviour and high recurrence is:

- (A) Ameloblastoma
- (B) Odontoma
- (C) Adenomatoid odontogenic tumour (AOT)
- (D) Calcifying epithelial odontogenic tumour (CEOT)

Q76. The classical radiographic appearance of a multilocular ameloblastoma is described as:



- (A) Well-defined unilocular radiolucency with scattered calcifications
- (B) Diffuse ground-glass opacity with loss of trabecular pattern
- (C) “Sun-burst” periosteal reaction
- (D) Multilocular “soap bubble” or “honeycomb” radiolucency with scalloped margins

Q77. Among the histological variants of ameloblastoma, the one with the LOWEST recurrence rate after conservative surgery is:

- (A) Follicular ameloblastoma
- (B) Unicystic ameloblastoma
- (C) Plexiform ameloblastoma
- (D) Desmoplastic ameloblastoma

Q78. Adenomatoid Odontogenic Tumour (AOT) is nicknamed the “two-thirds tumour” because:

- (A) Two-thirds occur in the maxilla and two-thirds are in males
- (B) Two-thirds occur in the mandible
- (C) Two-thirds are in the maxilla, two-thirds occur in females, and two-thirds are associated with an unerupted canine
- (D) Two-thirds require segmental mandibular resection

Q79. Peripheral (extraosseous) ameloblastoma is best treated by:

- (A) Radical resection with 2 cm bony margins
- (B) Simple local soft-tissue excision with a small margin of normal tissue
- (C) Radiation therapy
- (D) Systemic chemotherapy followed by surgery

Q80. The MOST COMMON site of ameloblastoma within the mandible is the:

- (A) Posterior mandible (molar-ramus region, ~70% of cases)



- (B) Anterior mandible (symphysis and parasymphysis region)
- (C) Condylar region
- (D) Coronoid process

Q81. Calcifying Epithelial Odontogenic Tumour (CEOT / Pindborg's tumour) is histologically characterised by:

- (A) Ghost cells and calcified deposits arranged in concentric spherules
- (B) Sheets of polyhedral epithelial cells with Liesegang rings but no amyloid
- (C) Sheets of polyhedral epithelial cells, amyloid-like material, and calcifications arranged in Liesegang (concentric) rings
- (D) Columnar ameloblast-like cells with reverse nuclear polarity

Q82. The most appropriate surgical treatment for a solid/multicystic ameloblastoma of the mandibular body and ramus is:

- (A) Enucleation and curettage alone
- (B) Resection with 1–1.5 cm of radiographically normal surrounding bone
- (C) Mandibular continuity resection without reconstruction (saucerisation)
- (D) External beam radiation therapy

TMJ Disorders (Q83–Q90)

Q83. According to Wilkes staging of TMJ internal derangements, Stage III is characterised by:

- (A) Disc displacement with reduction; normal disc and joint morphology
- (B) Early disc displacement without reduction; minimal deformity
- (C) Disc displacement with reduction; slight disc deformity and joint changes



(D) Disc displacement without reduction; moderate disc deformity with early osteoarthritic bone changes

Q84. The clinical finding that BEST differentiates disc displacement WITH reduction from disc displacement WITHOUT reduction is:

- (A) Severity of pain on maximum opening
- (B) Reciprocal click on opening and closing in displacement with reduction; absent clicking with ipsilateral deviation and limited opening in displacement without reduction
- (C) Presence of joint crepitus
- (D) Tenderness of the lateral pterygoid muscle on palpation

Q85. Eminectomy of the TMJ is the surgical procedure of choice for:

- (A) Disc displacement without reduction
- (B) Osteoarthritis with severe joint degeneration
- (C) Fibro-osseous ankylosis
- (D) Recurrent (habitual) dislocation of the mandibular condyle

Q86. The FIRST-LINE management for TMJ internal derangement follows a reversible, non-surgical approach that includes:

- (A) Occlusal stabilisation splint, physiotherapy, NSAIDs, and patient education
- (B) Immediate arthrocentesis and intra-articular corticosteroid injection
- (C) Early arthroscopic disc repositioning
- (D) Open arthroplasty with disc repair or replacement

Q87. TMJ ankylosis in children is MOST COMMONLY caused by:

- (A) Rheumatoid arthritis
- (B) Degenerative osteoarthritis
- (C) Mumps (parotitis)



(D) Condylar fracture in childhood with subsequent bony fusion

Q88. The procedure of choice for established fibro-osseous (bony) ankylosis of the TMJ is:

(A) Arthrocentesis alone

(B) Condylotomy (vertical subcondylar osteotomy)

(C) Gap arthroplasty (resection of ankylosed mass creating a ≥ 1.5 cm gap) with reconstruction using a costochondral rib graft (in children) or alloplastic prosthesis

(D) Condylectomy without reconstruction

Q89. TMJ arthrocentesis involves:

(A) Endoscopic visualisation of the upper and lower joint compartments

(B) Surgical exposure of the joint through a preauricular incision

(C) Percutaneous lavage of the superior joint space using two needles – one for inflow and one for outflow – with physiological saline

(D) Intra-articular injection of corticosteroids alone without irrigation

Q90. A “reciprocal click” on TMJ examination is MOST COMMONLY associated with:

(A) Anterior disc displacement with reduction

(B) Osteoarthritis (which produces crepitus, not clicking)

(C) Fibrous ankylosis of the joint

(D) Myofascial pain dysfunction syndrome (no articular sounds)

Orthognathic Surgery (Q91–Q95)

Q91. Le Fort I osteotomy is used to correct which skeletal deformity?

(A) Maxillary discrepancies in the sagittal and/or vertical plane (advancement, impaction, inferior movement, or posterior repositioning of the maxilla)



- (B) Mandibular prognathism
- (C) Vertical excess of the mandible
- (D) Horizontal chin deficiency (retrognathia of the chin alone)

Q92. The Bilateral Sagittal Split Ramus Osteotomy (BSSRO) of the mandible is MOST COMMONLY performed to correct:

- (A) Maxillary vertical excess
- (B) Chin deficiency alone
- (C) Mandibular prognathism or retrognathism (advancement or setback of the mandible)
- (D) Skeletal anterior open bite by superior repositioning of the maxilla

Q93. The cephalometric landmark “Point A” (Subspinale) is defined as the:

- (A) Most anterior point of the maxillary alveolar process
- (B) Most prominent point of the chin (menton)
- (C) Midpoint of the sella turcica
- (D) Deepest (most posterior) point on the concavity of the anterior surface of the maxilla between the anterior nasal spine and the alveolar crest

Q94. The standard Le Fort I osteotomy cut is made:

- (A) Approximately 5 mm above the root apices of the upper teeth, through the lateral maxillary wall, across the pyriform aperture, through the nasal septum, and across the pterygomaxillary junction
- (B) Through the infraorbital rim and orbital floor
- (C) At the level of the palatal vault on the nasal side
- (D) Through the zygomatic arch and body

Q95. The nerve MOST at risk of injury during Bilateral Sagittal Split Ramus Osteotomy (BSSRO) of the mandible is the:



- (A) Facial nerve (VII)
- (B) Inferior alveolar nerve (runs through the medullary space being split)
- (C) Lingual nerve
- (D) Mental nerve

Preprosthetic Surgery and Medical Emergencies (Q96–Q100)

Q96. Alveoloplasty is a preprosthetic surgical procedure performed to:

- (A) Contour and smoothen the alveolar ridge after tooth extraction to create an acceptable denture-bearing surface
- (B) Deepen the labial sulcus for improved denture retention
- (C) Remove a palatal torus for denture construction
- (D) Augment the ridge with bone graft prior to denture placement

Q97. The surgical approach for removal of a large mandibular torus (torus mandibularis) is:

- (A) Extraction of adjacent teeth and access through the socket
- (B) External reduction with a bone file under local anaesthesia without incision
- (C) Extraoral submandibular approach under general anaesthesia
- (D) Intraoral midline lingual incision, mucoperiosteal flap reflection, and removal with osteotome/chisel or rotary bur

Q98. Vestibuloplasty is a preprosthetic procedure performed to:

- (A) Remove palatal tori interfering with upper denture construction
- (B) Correct macrostomia (wide mouth opening)
- (C) Reconstruct the lower lip after trauma
- (D) Increase the depth of the oral vestibule (sulcus) to improve the denture-bearing area and stability



- Q99.** A patient becomes confused, sweaty, and pale during dental treatment. Blood glucose is measured at 40 mg/dL. The IMMEDIATE management for a conscious patient is:
- (A) Intramuscular adrenaline 0.5 mL of 1:1000
 - (B) IV atropine 0.6 mg
 - (C) Oral glucose (sugar/fruit juice/glucose tablets) immediately
 - (D) IV diazepam 10 mg
- Q100.** The correct dose and route of adrenaline (epinephrine) in a confirmed adult anaphylactic reaction is:
- (A) 1 mL of 1:1000 solution given subcutaneously into the forearm
 - (B) 0.5 mL of 1:1000 solution (0.5 mg) given intramuscularly into the anterolateral thigh
 - (C) 10 mL of 1:10,000 solution given as an IV bolus
 - (D) 1 mL of 1:10,000 solution given by slow IV infusion



Detailed Solutions

Q1.

Solution

Concept – Winter’s Classification: Based on the angulation of the long axis of the impacted third molar relative to the long axis of the adjacent second molar. Parallel long axes = Vertical impaction. **Why other options are wrong:**

- (B) Mesioangular: crown tilted mesially toward the second molar.
- (C) Distoangular: crown tilted distally away from the second molar.
- (D) Horizontal: long axis perpendicular (90°) to second molar.

Answer: (A) [Go Back to Q1](#)

Q2.

Solution

Concept – Pell-Gregory (Ramus relation + Depth): Class I = space $\geq$ crown width. Position A = occlusal surface at or above the adjacent second molar’s occlusal plane. Both criteria met: Class I, Position A. **Why other options are wrong:**

- (B) Class II: space $<$ crown width.
- (C) Class I, Position B: crown between occlusal plane and cervical line.
- (D) Class II, Position B: combines inadequate space and intermediate depth.

Answer: (A) [Go Back to Q2](#)

Q3.

Solution

Concept – Class II definition: The space between the anterior border of the ramus and the distal of the second molar is LESS than the mesiodistal diameter of the crown, meaning the ramus partially overlaps the impacted tooth. **Why other options are wrong:**

- (A) Describes Class I, Position A.
- (B) Describes Class III (entirely within ramus).
- (D) Describes Position B depth, not ramus space.



Answer: (C) [Go Back to Q3](#)

Q4.

Solution

Concept: Class II = inadequate ramus space; Position B = occlusal surface between the occlusal plane and the cervical line of the second molar. Option C correctly combines the Class II ramus criterion.

Answer: (C) [Go Back to Q4](#)

Q5.

Solution

Concept – Dry Socket Incidence: Alveolar osteitis affects approximately 20–30% of mandibular third molar surgical extractions, making it the most common complication. IAn paraesthesia is next most common (~5%). **Why other options are wrong:**

- (A) IAn paraesthesia occurs in ~5%; usually transient.
- (B) Oroantral fistula is specific to maxillary teeth.
- (C) Pathological fracture is rare, associated with large cysts or radiation.

Answer: (D) [Go Back to Q5](#)

Q6.

Solution

Concept – Alveolar Osteitis (Dry Socket): Classic triad: onset 2–4 days post-extraction, severe radiating pain, empty socket with exposed bare bone, foul odour. Blood clot fails to form or is prematurely lost. **Treatment:** Gentle irrigation of the socket + intra-alveolar dressing (alvogyl/ZOE-based) changed every 2–3 days until epithelialization.

Answer: (D) [Go Back to Q6](#)



Q7.

Solution

Concept: Winter's classification uses the angular relationship of the impacted tooth's long axis to that of the second molar (not to the occlusal plane, which is Pell-Gregory Position classification, and not to the ramus border).

Answer: (A) [Go Back to Q7](#)

Q8.

Solution

Concept – IAn at Risk During Sectioning: The inferior alveolar nerve runs in the mandibular canal immediately apical to and often adjacent to the roots of a deeply positioned third molar. Bur inadvertently entering the canal can cause permanent anaesthesia. **Note:** The lingual plate and lingual nerve are also at risk during bone removal on the lingual side, but during tooth *sectioning*, the IAn is the primary concern.

Answer: (D) [Go Back to Q8](#)

Q9.

Solution

Concept – Pell-Gregory Depth (Position): Position A = at/above occlusal plane; Position B = between occlusal plane and cervical line; Position C = below cervical line of the second molar.

Answer: (B) [Go Back to Q9](#)

Q10.

Solution

Concept: Mesioangular is the most common impaction type (~43%), followed by vertical (~38%), distoangular (~6%), and horizontal (~3%). Mesioangular impactions are also generally the easiest to remove.

Answer: (B) [Go Back to Q10](#)



Q11.

Solution

Concept: The pterygoid venous plexus lies in the infratemporal fossa, immediately posterior to the upper third molar. Displacement of the tooth into the infratemporal fossa, or aggressive instrumentation, can tear plexus tributaries, causing massive bleeding that is difficult to control.

Answer: (C) [Go Back to Q11](#)

Q12.

Solution

Concept – Radiographic Risk Markers for IAn: Darkening of the root where it crosses the canal is a recognised radiographic sign of intimate root-canal relationship (root may be grooved or perforated by the canal). Warrants CBCT pre-operatively. Other recognised signs include: narrowing/deflection of the canal, interruption of the canal white lines, and darkening of the root.

Answer: (A) [Go Back to Q12](#)

Q13.

Solution

Concept: Prophylactic removal of an asymptomatic, symptom-free, fully erupted or unerupted tooth in an otherwise healthy adult with no adjacent pathology is the most controversial indication and is not universally accepted. The other options are all well-established accepted indications.

Answer: (B) [Go Back to Q13](#)

Q14.

Solution

Concept: An inverted tooth is one in which the normal crown-root orientation is reversed: crown pointing apically and roots pointing coronally (upside-down tooth). Rare, but occasionally seen in the mandible.

Answer: (A) [Go Back to Q14](#)



Q15.

Solution

Concept: Pell-Gregory Class I = space available equals or exceeds the mesiodistal crown width. The tooth can theoretically erupt if given sufficient vertical space (no ramus obstruction).

Answer: (B) [Go Back to Q15](#)

Q16.

Solution

Concept: The fundamental sequence for all extractions: (1) apical seating of forceps beaks below the CEJ, applying apical pressure to expand the socket; (2) buccal and palatal (or lingual) luxation alternately; (3) traction once the tooth is mobile. The primary force is always apical.

Answer: (C) [Go Back to Q16](#)

Q17.

Solution

Concept: Apical pressure expands the lamina dura and compresses the PDL, creating space for subsequent luxation movements. Without adequate apical seating and apical pressure, lateral and rotational forces risk root fracture.

Answer: (A) [Go Back to Q17](#)

Q18.

Solution

Concept: Dry socket incidence: mandibular third molar surgical extractions 20–30% > mandibular first molar > maxillary third molar. Mandibular third molar site has relatively poor blood supply and high bacterial load (pericoronitis history).

Answer: (C) [Go Back to Q18](#)



Q19.

Solution

Concept – Primary Haemorrhage Management: Local pressure with a gauze pack (bite pressure for 20–30 minutes) is always the first-line measure. Suturing, vessel ligation, bone wax, and systemic agents are reserved for persistent or secondary haemorrhage.

Answer: (C) [Go Back to Q19](#)

Q20.

Solution

Concept – Classification of Post-Extraction Haemorrhage:

- Primary: at the time of surgery.
- Reactionary: within 24 hours (vasoconstrictor wears off, BP rises).
- Secondary: 7–14 days later due to wound infection.

Six hours post-extraction, vasoconstrictor wearing off = reactionary haemorrhage.

Answer: (D) [Go Back to Q20](#)

Q21.

Solution

Concept: Ridge/socket preservation uses bone grafts and/or membranes placed at extraction time to prevent the natural bone resorption (25% of alveolar width lost in first 3 months). Essential before planned implant placement.

Answer: (A) [Go Back to Q21](#)

Q22.

Solution

Concept – Diabetes and Elective Surgery: $HbA1c < 8\%$ (or fasting BG < 180 mg/dL) is the generally accepted target before elective dental surgery. Uncontrolled hyperglycaemia impairs wound healing, promotes infection, and increases risk of DKA under stress.

Answer: (B) [Go Back to Q22](#)



Q23.

Solution**Concept – Socket Healing Timeline:**

- Day 1–3: blood clot forms.
- Day 4–7: granulation tissue replaces clot.
- Week 2–3: connective tissue and early bone.
- Week 3–4: complete epithelialization.
- 3–6 months: bone fills socket.

Answer: (B) [Go Back to Q23](#)

Q24.

Solution

Concept: Adequate blood supply to a surgical flap requires the base to be wider than the free margin, providing sufficient vascular pedicle. A narrow base risks ischaemic necrosis of the flap tip.

Answer: (D) [Go Back to Q24](#)

Q25.

Solution

Concept: Trismus = limited mouth opening from masticatory muscle spasm. Post-extraction causes: spread of infection to pterygomandibular/masseteric spaces, or haematoma in the pterygoid muscles (e.g. after IANB hitting the medial pterygoid).

Answer: (B) [Go Back to Q25](#)

Q26.

Solution**Concept – Lignocaine Doses:**

- Plain lignocaine (no vasoconstrictor): 4.5 mg/kg, max 300 mg.
- Lignocaine with adrenaline: 7 mg/kg, max 500 mg.

The vasoconstrictor slows systemic absorption, allowing a higher total dose.

Answer: (C) [Go Back to Q26](#)

Q27.

Solution

Concept – IANB Landmark: The needle is directed at the pterygomandibular raphe at the level of the coronoid notch (the deepest concavity on the anterior border of the ramus), 6–10 mm above the mandibular occlusal plane. The syringe barrel lies over the premolars of the contralateral side.

Answer: (B) [Go Back to Q27](#)

Q28.

Solution

Concept – Akinosi Technique: Performed with the mouth closed; the needle is inserted medial to the mandibular ramus at the level of the maxillary tuberosity while the mouth remains shut. Avoids the need for wide opening, making it ideal for patients with trismus.

Answer: (C) [Go Back to Q28](#)

Q29.

Solution

Concept – Gow-Gates Block: Targets the mandibular nerve at the neck of the condyle (lateral aspect of the condylar neck), anaesthetising the entire mandibular division (V3), including the inferior alveolar, lingual, buccal, mental, mylohyoid, and auriculotemporal nerves. Success rate higher than conventional IANB.

Answer: (D) [Go Back to Q29](#)

Q30.

Solution

Concept: Flumazenil competitively antagonises GABA-A receptors, reversing benzodiazepine-induced sedation. Naloxone reverses opioids; neostigmine reverses neuromuscular blockade; atropine reverses muscarinic effects of organophosphates.

Answer: (A) [Go Back to Q30](#)



Q31.

Solution

Concept: Early bone contact in IANB usually means the needle struck the medial ramus surface too anteriorly (the syringe barrel may have been positioned too far posteriorly at entry). Redirect: bring the barrel further toward the contralateral side (more posterior), so the needle approaches the mandibular foramen correctly.

Answer: (B) [Go Back to Q31](#)

Q32.

Solution

Concept – Vasovagal Syncope vs LA Toxicity: Vasovagal syncope: sudden pallor, bradycardia, hypotension, transient LOC; triggered by anxiety/pain; responsive to Trendelenburg position and ammonia inhalants. LA toxicity produces tachycardia/arrhythmia and CNS excitation before collapse. Anaphylaxis: urticaria, bronchospasm, tachycardia.

Answer: (D) [Go Back to Q32](#)

Q33.

Solution

Concept: The mental nerve (terminal branch of the inferior alveolar nerve, exiting the mental foramen) supplies only soft tissue: lower lip, chin skin, and buccal mucosa/gingiva of the lower premolars and anteriors. It does NOT anaesthetise the teeth themselves.

Answer: (A) [Go Back to Q33](#)

Q34.

Solution

Concept: Bupivacaine 0.5% with adrenaline provides pulpal anaesthesia for 4–8 hours and soft tissue numbness for up to 12 hours, the longest of routinely used dental local anaesthetics. Useful for prolonged surgical procedures and post-operative analgesia.

Answer: (B) [Go Back to Q34](#)



Q35.

Solution

Concept: Prilocaine is metabolised to o-toluidine, which converts haemoglobin to methaemoglobin. Risk increases at doses > 600 mg. Benzocaine (topical) causes similar problems. Lignocaine, mepivacaine, and bupivacaine do not cause methaemoglobinaemia at clinical doses.

Answer: (D) [Go Back to Q35](#)

Q36.

Solution

Concept: Adrenaline (epinephrine) causes local vasoconstriction, reduces blood flow at the injection site, slows systemic absorption of the LA, lowers peak plasma concentration (reducing toxicity risk), and prolongs the duration of anaesthesia. It also reduces intra-operative bleeding.

Answer: (C) [Go Back to Q36](#)

Q37.

Solution

Concept: Ester anaesthetics (procaine, benzocaine, tetracaine, chloroprocaine) share a common metabolite (PABA) that causes allergy. Amide anaesthetics (lignocaine, bupivacaine, mepivacaine, prilocaine) are metabolised differently and have virtually no cross-reactivity with esters.

Answer: (D) [Go Back to Q37](#)

Q38.

Solution

Concept – LAST (Local Anaesthetic Systemic Toxicity): Classic biphasic presentation: early CNS excitation (metallic taste, circumoral tingling, tinnitus, then convulsions) followed by CNS and cardiovascular depression (bradycardia, hypotension, cardiac arrest). Treatment: airway, benzodiazepine for convulsions, Intralipid 20% IV for refractory cases.

Answer: (D) [Go Back to Q38](#)



Q39.

Solution

Concept: In India, the standard dental local anaesthetic cartridge contains lignocaine 2% with adrenaline 1:80,000. Internationally (US/Europe), 1:100,000 and 1:200,000 are more common. The Indian standard is 1:80,000.

Answer: (C) [Go Back to Q39](#)

Q40.

Solution

Concept: In the pterygomandibular space, the lingual nerve lies 1–2 mm antero-medial to the inferior alveolar nerve. The LA deposited for IANB diffuses anteriorly and anaesthetises the lingual nerve en route.

Answer: (A) [Go Back to Q40](#)

Q41.

Solution

Concept: Ludwig's angina is a bilateral, rapidly progressive cellulitis (not an abscess) of the bilateral sublingual, bilateral submandibular, and submental spaces. The infection spreads along fascial planes, not through lymphatics. It elevates and pushes the tongue posteriorly, threatening the airway.

Answer: (C) [Go Back to Q41](#)

Q42.

Solution

Concept: The buccal roots of the mandibular first molar are often long enough that their apices lie below the mylohyoid line. Infection tracks into the submandibular space. If the apex is above the mylohyoid, it enters the sublingual space instead.

Answer: (C) [Go Back to Q42](#)



Q43.

Solution

Concept: The facial vein (anterior facial vein) has no valves. Thrombophlebitis from maxillary anterior tooth infections can propagate retrogradely via the angular vein → ophthalmic vein → cavernous sinus. Mandibular infections typically drain inferiorly, away from the cavernous sinus.

Answer: (D) [Go Back to Q43](#)

Q44.

Solution

Concept: In Ludwig's angina, as the floor of mouth swells, the tongue is elevated and pushed posteriorly. This is the hallmark sign of impending airway loss. Secure the airway (awake fiberoptic intubation preferred) before attempting I&D.

Answer: (C) [Go Back to Q44](#)

Q45.

Solution

Concept: Buccal space lies between the buccinator and the skin of the cheek. The extraoral incision is placed at the inferior convexity of the swelling, approximately 2–3 cm below the zygomatic arch and parallel to it, to avoid the facial nerve (zygomatic branches above, marginal mandibular below).

Answer: (D) [Go Back to Q45](#)

Q46.

Solution

Concept: Odontogenic infections are predominantly mixed (aerobic + anaerobic). Streptococcus viridans (particularly S. milleri group: S. constellatus, S. intermedius, S. anginosus) are the dominant facultative anaerobes isolated. Staphylococcus is NOT a primary odontogenic pathogen.

Answer: (B) [Go Back to Q46](#)



Q47.

Solution

Concept: Pericoronitis involves the pericoronal tissues. The pterygomandibular and submasseteric spaces are immediately adjacent. Inflammatory exudate and bacterial toxins reaching the medial pterygoid and masseter muscles cause protective reflex spasm → trismus.

Answer: (B) [Go Back to Q47](#)

Q48.

Solution

Concept: Amoxicillin provides broad-spectrum cover against the streptococcal and mixed flora of odontogenic infections. Metronidazole is added for strict anaerobes when indicated. Clindamycin is the alternative for penicillin-allergic patients.

Answer: (A) [Go Back to Q48](#)

Q49.

Solution

Concept: Necrotizing fasciitis: synergistic polymicrobial infection (group A streptococci, anaerobes, Gram-negative bacilli) that produces enzymes (hyaluronidase, lipase) dissolving fascial barriers. Extensive debridement of all necrotic tissue + broad-spectrum IV antibiotics + hyperbaric oxygen. Mortality 20–40%.

Answer: (B) [Go Back to Q49](#)

Q50.

Solution

Concept: The retropharyngeal space (between the posterior pharyngeal wall and the prevertebral fascia) and the adjacent “danger space” (between the alar and prevertebral fascia layers) extend from the skull base to the posterior mediastinum at the level of T4, providing a direct gravitational path for descending cervical infections.

Answer: (C) [Go Back to Q50](#)



Q51.

Solution

Concept: Pericoronitis = inflammation of the operculum (soft tissue flap over a partially erupted tooth). The operculum traps food debris and bacteria, leading to acute and chronic cycles of infection. Definitive treatment: operculectomy or extraction of the causative tooth.

Answer: (A) [Go Back to Q51](#)

Q52.

Solution

Concept: Surgical drainage removes pus under pressure, relieving pain and preventing spread. Antibiotics penetrate poorly into avascular pus-filled cavities. Without drainage, antibiotics alone are insufficient and may promote resistant organisms.

Answer: (D) [Go Back to Q52](#)

Q53.

Solution

Concept – Le Fort III (Craniofacial Dysjunction): Fracture passes through the nasofrontal suture, medial and lateral orbital walls, zygomatic arch, and pterygoid plates – completely separating the entire midface from the cranial base. Clinical signs: total midface mobility, bilateral periorbital ecchymosis (“racoon eyes”), bilateral subconjunctival haemorrhage, CSF rhinorrhoea.

Answer: (C) [Go Back to Q53](#)

Q54.

Solution

Concept – Le Fort II (Pyramidal Fracture): Fracture passes through: nasal bones → frontal process of maxilla → lacrimal bones → orbital floor and medial orbital wall → infraorbital rim → pterygoid plates. The mobile segment is shaped like a pyramid. Signs: infraorbital nerve hypoaesthesia, bilateral infraorbital ecchymosis, nasal bridge step.

Answer: (B) [Go Back to Q54](#)



Q55.

Solution

Concept – Le Fort I (Guerin's Fracture): Fracture at the level of the nasal floor, passing through the pyriform aperture, lateral walls of the maxillary sinuses, and pterygoid plates. Only the upper alveolus (palate + upper teeth) moves; the rest of the midface is stable. "Floating palate."

Answer: (C) [Go Back to Q55](#)

Q56.

Solution

Concept: To test Le Fort I mobility, grasp the upper anterior teeth/alveolus between thumb and index finger and attempt to move it in an antero-posterior direction. Movement of the alveolus while the rest of the midface and skull remain stable confirms Le Fort I.

Answer: (A) [Go Back to Q56](#)

Q57.

Solution

Concept – Zygomatic Complex (Tripod/Trimalar) Fracture: Three fracture sites: (1) Zygomaticofrontal suture; (2) Zygomaticomaxillary buttress (infraorbital rim + anterior sinus wall); (3) Zygomatic arch. These three "legs" anchor the zygoma; when all three fail, the zygoma is free to displace.

Answer: (D) [Go Back to Q57](#)

Q58.

Solution

Concept: The sphenopalatine artery (maxillary artery terminal branch) supplies the posterior nasal septum (Woodruff's area) and is the commonest source of posterior epistaxis in trauma. The anterior ethmoidal artery supplies the anterior septum (Kiesselbach's area). Both are disrupted in midface fractures.

Answer: (D) [Go Back to Q58](#)



Q59.

Solution

Concept: Kazanjian advocated closed reduction using IMF (wiring the jaws together in occlusion) as the primary method for condylar fractures. Elastic traction guides the mandible back into occlusion. ORIF (Spiessl) is used for displaced condylar fractures where IMF alone is insufficient.

Answer: (A) [Go Back to Q59](#)

Q60.

Solution

Concept: The SMV (submentovertex / jug-handle) view projects the skull in an axial plane, displaying the zygomatic arches end-on. Isolated arch fractures ("M" deformity) are best seen on SMV. Waters' view shows the overall zygomatic complex but not the arch in profile.

Answer: (B) [Go Back to Q60](#)

Q61.

Solution

Concept: Muscles attached to mandibular fragments determine displacement. E.g. in subcondylar fracture: the masseter, medial pterygoid, and temporalis pull the proximal (condylar) fragment upward-medially; the mylohyoid, geniohyoid, and digastric pull the anterior fragment downward-posteriorly. Understanding muscle vectors is essential for reduction planning.

Answer: (D) [Go Back to Q61](#)

Q62.

Solution

Concept – Champy's Principle (1978): Computer analysis of mandibular stress showed areas of maximum tension during function (superior border of the corpus, oblique line at the angle). Placing a monocortical miniplate along these tension lines neutralises the deforming forces without excessive plate bulk.

Answer: (A) [Go Back to Q62](#)



Q63.

Solution

Concept: Bilateral condylar fracture: both condyles are displaced medially-anteriorly and upward by the lateral pterygoid muscles. This shortens the posterior facial height bilaterally, causing premature contact of the posterior teeth, anterior open bite, and apparent retrognathia.

Answer: (B) [Go Back to Q63](#)

Q64.

Solution

Concept – Spiessl Classification:

- Type I: Condylar fracture without displacement.
- Type II: Low condylar neck fracture with lateral deviation.
- Type III: High condylar fracture, medial override.
- Type IV: High condylar fracture, lateral override.
- Type V: Diacapitular (intra-articular) fracture.
- Type VI: Any type with additional fractures.

Answer: (D) [Go Back to Q64](#)

Q65.

Solution

Concept: In 2005, WHO classified OKC as a “Keratocystic Odontogenic Tumour” due to aggressive behaviour, PTCH1 gene mutations, and satellite cysts. However, 2017 WHO re-classified it as “OKC” (cyst) because the evidence for true neoplastic independence (autonomous growth, invasion, metastasis) remained insufficient compared to established tumours.

Answer: (C) [Go Back to Q65](#)

Q66.

Solution

Concept – OKC Histology: The diagnostic features of OKC lining are: thin uniform epithelium (6–8 cells), parakeratosis with a corrugated/rippled surface, palisaded columnar or cuboidal basal cells with hyperchromatic nuclei, and a flat epithelial-connective tissue interface (no rete ridges).



Answer: (B) [Go Back to Q66](#)

Q67.

Solution

Concept: Radicular (periapical) cysts account for approximately 52–68% of all jaw cysts (Shear). They arise from Malassez epithelial rests in the PDL stimulated by periapical inflammation of non-vital teeth.

Answer: (A) [Go Back to Q67](#)

Q68.

Solution

Concept: Dentigerous cyst develops from the reduced enamel epithelium surrounding the crown of an unerupted tooth when fluid accumulates between the epithelium and the crown. Most common location: mandibular third molar (~45%), followed by maxillary canine, maxillary third molar, and mandibular premolars.

Answer: (D) [Go Back to Q68](#)

Q69.

Solution

Concept: Radicular cyst management: (1) RCT (remove inflammatory stimulus); (2) Enucleation with curettage (small cysts); (3) Marsupialization → delayed enucleation for large cysts near vital structures. Extraction is only required if the tooth is non-restorable.

Answer: (C) [Go Back to Q69](#)

Q70.

Solution

Concept: OKC recurrence mechanisms: (1) thin friable lining tears during enucleation, leaving epithelial rests; (2) daughter (satellite) cysts in the capsule left behind; (3) new cysts from adjacent dental lamina rests (not residual). Carnoy's solution application to the bony cavity after enucleation significantly reduces recurrence.

Answer: (A) [Go Back to Q70](#)



Q71.

Solution

Concept – Gorlin-Goltz Syndrome (NBCCS): Autosomal dominant; PTCH1 gene mutation. Features: multiple OKCs (not dentigerous cysts), multiple basal cell naevi/carcinomas, calcified falx cerebri (earliest sign), bifid/fused ribs, vertebral anomalies, macrocephaly, ocular hypertelorism, and intracranial medulloblastoma.

Answer: (B) [Go Back to Q71](#)

Q72.

Solution

Concept: Marsupialization (Parks I): converts the cyst into an open pouch communicating with the oral cavity. Intra-cystic pressure decreases, allowing gradual bone infilling. Preferred when complete enucleation risks damage to the IAN, tooth follicles, or the sinus.

Answer: (C) [Go Back to Q72](#)

Q73.

Solution

Concept – Stafne's Bone Cyst: A normal anatomical variant; not a true cyst. Located in the posterior mandible below the IAN canal (inferior to the mylohyoid line), contains submandibular gland tissue. Radiographically: well-defined, round radiolucency below the canal. CT/MRI confirms salivary tissue. No treatment needed.

Answer: (A) [Go Back to Q73](#)

Q74.

Solution

Concept: OKC's classic features: posterior mandible predilection in young adults, multilocular or unilocular radiolucency, thin/friable lining, straw-coloured (keratinous) aspirate at high pressure. Ameloblastoma aspirate is brownish fluid or empty; dentigerous cyst has clear/straw aspirate but around a specific tooth crown.

Answer: (B) [Go Back to Q74](#)



Q75.

Solution

Concept: Ameloblastoma is the most important (clinically significant) benign odontogenic tumour. While odontoma is more common by incidence (hamartoma), it is treated by simple enucleation and does not recur. Ameloblastoma recurs frequently ($> 50\%$ after conservative treatment) and causes significant jaw destruction.

Answer: (A) [Go Back to Q75](#)

Q76.

Solution

Concept: The multilocular “soap bubble” appearance results from multiple cyst-like compartments separated by bony septa. The “honeycomb” variant has smaller compartments. In the anterior jaw, ameloblastoma sometimes appears unilocular. Root resorption of adjacent teeth is common.

Answer: (D) [Go Back to Q76](#)

Q77.

Solution

Concept – Unicystic Ameloblastoma: Presents as a unilocular cyst, often associated with an unerupted tooth (mimics dentigerous cyst). Has a more favourable behaviour; recurrence after enucleation $\sim 10\text{--}25\%$ (vs $> 50\%$ for solid/multicystic). Subclassified by the location of the ameloblastic epithelium relative to the cyst wall (Ackermann et al.).

Answer: (B) [Go Back to Q77](#)

Q78.

Solution

Concept – AOT “Two-Thirds” Rule: $2/3$ are in the maxilla (usually anterior); $2/3$ are in females; $2/3$ are associated with an impacted canine (often mimics dentigerous cyst). Good prognosis; simple enucleation is curative with virtually no recurrence.

Answer: (C) [Go Back to Q78](#)



Q79.

Solution

Concept: Peripheral ameloblastoma is an extraosseous variant arising from the gingival surface epithelium or remnants of dental lamina. Because it does not invade bone, simple excision with a small soft-tissue margin is curative. Recurrence is extremely rare.

Answer: (B) [Go Back to Q79](#)

Q80.

Solution

Concept: Mandibular posterior region (molar-ramus) accounts for ~70% of ameloblastomas; maxilla is the next most common site (~15%), usually in the posterior maxilla/sinus. Anterior jaw ameloblastomas are less common but do occur.

Answer: (A) [Go Back to Q80](#)

Q81.

Solution

Concept – CEOT (Pindborg's Tumour): Histology: sheets of closely packed polyhedral epithelial cells with pleomorphism and prominent intercellular bridges; amyloid-like material (Congo red positive, green birefringence with polarised light) secreted by epithelial cells; concentric calcifications (Liesegang rings). Benign but locally aggressive.

Answer: (C) [Go Back to Q81](#)

Q82.

Solution

Concept: Solid/multicystic ameloblastoma infiltrates the medullary bone trabeculae 1–2 cm beyond the apparent radiographic margin. A 1–1.5 cm margin of apparently normal bone on imaging is required to ensure microscopically tumour-free margins and prevent recurrence. Continuity defects require immediate or delayed reconstruction with bone graft or alloplastic prosthesis.

Answer: (B) [Go Back to Q82](#)



Q83.

Solution**Concept – Wilkes Staging of TMJ Internal Derangement:**

- Stage I: Disc displacement with reduction; normal morphology.
- Stage II: Disc displacement with reduction; slight deformity.
- Stage III: Disc displacement WITHOUT reduction; moderate deformity; early OA.
- Stage IV: Disc displacement without reduction; severe deformity; advanced OA.
- Stage V: Perforation of disc; extensive OA.

Answer: (D) [Go Back to Q83](#)

Q84.

Solution

Concept: With reduction: disc recaptures over the condyle on opening (click) and slips off on closing (closing click) → reciprocal click. Without reduction: disc is permanently anterior to condyle; on opening, mandible deviates to affected side and maximum opening is restricted (< 35 mm). No click; instead, deviation and limited opening.

Answer: (B) [Go Back to Q84](#)

Q85.

Solution

Concept – Eminectomy: Removes the articular eminence of the temporal bone. Without the steep posterior slope of the eminence to retain the condyle, spontaneous dislocation becomes mechanically impossible. Alternative procedures for recurrent dislocation: eminoplasty (augmenting the eminence with bone graft), Leclerc's procedure, and intermaxillary fixation.

Answer: (D) [Go Back to Q85](#)

Q86.

Solution

Concept: The American Association of Oral and Maxillofacial Surgeons (AAOMS) and AADR guidelines advocate reversible, non-invasive conservative management as first-line for most TMJ disorders. Invasive procedures are reserved for cases failing 3–6 months of conservative therapy.

Answer: (A) [Go Back to Q86](#)

Q87.

Solution

Concept: Post-traumatic TMJ ankylosis in children: condylar fracture → haemarthrosis → organisation → fibrosis → ossification. Children are more susceptible because the condylar cartilage is highly vascular and the thin condylar head fractures easily. Early mobilisation after condylar fractures in children prevents ankylosis.

Answer: (D) [Go Back to Q87](#)

Q88.

Solution

Concept – Gap Arthroplasty for Ankylosis: The ankylosed bony mass is resected, creating a gap of ≥ 1.5 cm to prevent re-ankylosis. In growing children, a costochondral rib graft is used because it has growth potential. In adults, an alloplastic total joint prosthesis (Biomet, TMJ Concepts) provides a more predictable outcome. Interpositional materials (temporalis fascia, dermis, silicone) are placed in the gap.

Answer: (C) [Go Back to Q88](#)

Q89.

Solution

Concept – Arthrocentesis: Two needles are inserted percutaneously into the superior joint space (upper compartment) using surface landmarks (canthal-tragal line). Physiological saline is flushed through the joint, removing inflammatory mediators, blood clots, and fibrinous adhesions. Often combined with intra-articular hyaluronic acid or corticosteroid injection.

Answer: (C) [Go Back to Q89](#)



Q90.

Solution

Concept: Reciprocal click (opening click + closing click) is pathognomonic of anterior disc displacement with reduction. Crepitus (grinding) is associated with osteoarthritis or disc perforation. Myofascial pain syndrome has no articular sounds; fibrous ankylosis has restricted, silent opening.

Answer: (A) [Go Back to Q90](#)

Q91.

Solution

Concept: Le Fort I osteotomy mobilises the entire maxilla as one unit, allowing it to be moved in any direction: anteriorly (advancement for maxillary retrusion), superiorly (impaction for vertical excess), inferiorly (downgraft for vertical deficiency), or posteriorly. It is the most versatile maxillary procedure.

Answer: (A) [Go Back to Q91](#)

Q92.

Solution

Concept – BSSRO (Dal Pont–Hunsuck–Epker Modification): The sagittal split divides the mandibular ramus into proximal (condyle + coronoid) and distal (tooth-bearing) segments. Wires or titanium screws fix the segments in a new position. The most versatile mandibular orthognathic procedure: can advance or set back by 10–15 mm.

Answer: (C) [Go Back to Q92](#)

Q93.

Solution

Concept – Cephalometric Landmarks:

- Point A (Subspinale): deepest midline point on the anterior maxillary concavity.
- Point B (Supramentale): deepest midline point on the anterior mandibular concavity.
- Pogonion: most anterior point of chin.
- Gnathion: lowest-most anterior point of chin.



ANB angle (A–N–B) reflects the sagittal jaw relationship.

Answer: (D) [Go Back to Q93](#)

Q94.

Solution

Concept: The Le Fort I cut is made at least 5 mm above the root apices of the upper teeth (to avoid root injury), runs through the lateral maxillary sinus wall, curves across the pyriform aperture (nasal floor), through the nasal septum, and posteriorly to the pterygomaxillary fissure where the pterygoid plates are separated with a curved osteotome.

Answer: (A) [Go Back to Q94](#)

Q95.

Solution

Concept: The IAn runs through the medullary space of the ramus that is surgically split during BSSRO. The osteotome splitting the medullary bone between the cortices can stretch or lacerate the nerve. Post-operative neurosensory disturbance (hypoesthesia/paraesthesia of the lower lip and chin) occurs in 9–85% of cases, with permanent impairment in ~9%.

Answer: (B) [Go Back to Q95](#)

Q96.

Solution

Concept: Alveoloplasty removes sharp bony prominences, undercuts, and inter-radicular septa after multiple extractions, producing a smooth ridge. It is classified as simple (conservative, done at time of extraction) or radical (more aggressive, done separately). Essential for optimal denture fit and comfort.

Answer: (A) [Go Back to Q96](#)



Q97.

Solution

Concept: Torus mandibularis: bony exostosis on the lingual surface of the mandible, usually bilateral. Removal is via an intraoral midline lingual incision (for bilateral tori), mucoperiosteal flap reflection, torus removal with a fissure bur and osteotome, and bone file smoothing. Complication: damage to the lingual nerve.

Answer: (D) [Go Back to Q97](#)

Q98.

Solution

Concept: Vestibuloplasty procedures (Clark's, Godwin's, Obwegeser's submucous, Edlan-Mejchar) deepen the labial or buccal sulcus to extend the denture-bearing area. Resorbed ridges lose sulcus depth as the mucosal attachments encroach. The deepened sulcus allows a longer denture flange and improved retention via peripheral seal.

Answer: (D) [Go Back to Q98](#)

Q99.

Solution

Concept – Hypoglycaemia Management:

- Conscious: 15–20 g oral fast-acting glucose (4 glucose tablets, 150 mL fruit juice, 3 tsp sugar). Re-check in 15 min. Repeat if < 70 mg/dL.
- Unconscious: IV 50 mL of 50% dextrose, OR intramuscular/subcutaneous glucagon 1 mg.

Adrenaline (option A) is for anaphylaxis, not hypoglycaemia.

Answer: (C) [Go Back to Q99](#)

Q100.

Solution

Concept – Adrenaline in Anaphylaxis (NICE/Resuscitation Council UK):

- Adult dose: 0.5 mg (0.5 mL of 1:1000) IM into anterolateral thigh.
- Child > 12 years: 0.5 mg; child 6–12 years: 0.3 mg; child < 6 years: 0.15



mg.

- Repeat after 5 min if no improvement.
- IM route is preferred over SC (faster absorption). IV only in ICU by specialists.

Answer: (B) [Go Back to Q100](#)



Answer Key – NEET MDS Oral and Maxillofacial Surgery Sample Paper 1

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	A	2	A	3	C	4	C	5	D
6	D	7	A	8	D	9	B	10	B
11	C	12	A	13	B	14	A	15	B
16	C	17	A	18	C	19	C	20	D
21	A	22	B	23	B	24	D	25	B
26	C	27	B	28	C	29	D	30	A
31	B	32	D	33	A	34	B	35	D
36	C	37	D	38	D	39	C	40	A
41	C	42	C	43	D	44	C	45	D
46	B	47	B	48	A	49	B	50	C
51	A	52	D	53	C	54	B	55	C
56	A	57	D	58	D	59	A	60	B
61	D	62	A	63	B	64	D	65	C
66	B	67	A	68	D	69	C	70	A
71	B	72	C	73	A	74	B	75	A
76	D	77	B	78	C	79	B	80	A
81	C	82	B	83	D	84	B	85	D
86	A	87	D	88	C	89	C	90	A
91	A	92	C	93	D	94	A	95	B
96	A	97	D	98	D	99	C	100	B

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