thers.com, for detailed information on PGMEE books, visit our website www.jaypeebrothers.com, for detailed information on PGMEE books

DR BHATIA
MEDICAL COACHING INSTITUTE
Estd. 1996 No.1 PG Medical Coaching Institute Of India
"Best Faculties make Best Institute"

M D S Experts

Celebrating 50 Years
Passion, Quality and Innovation in Healthcare Publishing

LMRP

Dental Exam Series

Last Minute Revision Points *for*

NEET-MDS/AIIMS-MDS/PGI-MDS



Amit Lal
Jasmine Lal
Nachiket Bhatia

JAYPEE

Contents

1. **Anatomy** 1
2. **Physiology** 12
3. **Biochemistry** 24
4. **Dental Anatomy and Histology** 34
5. **Pathology** 49
6. **Microbiology** 61
7. **Pharmacology** 76
8. **Dental Materials** 92
9. **Medicine** 116
10. **Surgery and Anesthesia** 135
11. **Oral Pathology** 160
12. **Oral Medicine and Radiology** 175
13. **Orthodontics** 193
14. **Oral and Maxillofacial Surgery** 208
15. **Prosthodontics** 229
16. **Pedodontics** 245
17. **Periodontology** 258
18. **Public Health Dentistry** 273
19. **Conservative Dentistry and Endodontics** 313
20. **Preventive and Social Medicine** 329
21. **Fundamentals** 337

Chapter

4 Dental Anatomy and Histology

Dental Anatomy

1. The cranium consists of eight bones:
   - Unpaired bones—frontal, occipital, sphenoid and ethmoid.
   - Paired bones—parietal and temporal.
2. The facial skeleton consists of 14 bones:
   - Unpaired bones—vomer and mandible.
   - Paired bones—inferior nasal conchae, lacrimal, maxillae, nasal, palatine and zygomatic.
3. Superior and middle conchae are parts of ethmoid bone. Inferior concha is a separate bone.
4. Each maxilla has four processes—frontal, zygomatic, alveolar and palatine.
5. Mandible has two processes—condyle and coronoid.
6. The only movable bone of the skull is mandible.
7. The smallest bone of face is lacrimal bone and the largest bone is mandible.
8. Hard palate is formed by two bones—The palatine process of maxilla and horizontal plate of palatine bone.
9. Pterion is the junction of greater wing of sphenoid, squamous temporal parietal and frontal. It is an important landmark, as middle meningeal artery lies over this and can lead to serious complications if injured.
10. Important foramina in the head and nerves that passes through:
    - F. ovale—Mandibular nerve.
    - F. rotundum—Maxillary nerve.

JAYPEE BROTHERS

- Superior orbital fissure—Ophthalmic nerve, abducens nerve, trochlear nerve and oculomotor nerve.
- Mandibular Foramen—Inferior alveolar nerve.
- Infraorbital Foramen—Infraorbital nerve.
- Jugular Foramen—Glossopharyngeal, vagus and spinal accessory nerve.

11. Facial muscles are striated, voluntary and are inserted into the skin.
12. Motor nerve supply to facial muscles is by facial nerve.
13. Sphincters of facial openings are:
    - Orbicularis oculi—orbital opening.
    - Orbicularis oris—oral cavity.
    - Compressor nares—nasal cavity.
14. All the muscles of mastication help in elevating the mandible except the lateral pterygoid which helps in depressing the mandible.
15. The nerve supply to muscles of mastication is through motor branch of mandibular division of trigeminal nerve and the arterial supply is from the second part of maxillary artery.
16. The four recti muscles of the eye arise from the tendinous ring which is attached to the orbital surface of the apex of the orbit and insert into sclera.
17. Mylohyoid muscle forms the floor of the mouth. It originates from the mylohyoid line and inserts into the median raphe and hyoid bone.
18. The genioglossus muscle is a fan shaped extrinsic muscle of tongue, which forms the bulk of the tongue.
19. Chief blood supply of tongue is the lingual artery.
20. All muscles of tongue are supplied by hypoglossal nerve except for the palatoglossus, which is supplied by cranial root of accessory nerve through pharyngeal plexus.
21. Sensory supply to the face is mainly by three divisions of the trigeminal nerve and C2 & C3 cervical nerves.
22. Exclusively sensory cranial nerves are: I, II and VIII.
23. Exclusively motor cranial nerves are—III, IV, VI, XI and XII.

JAYPEE BROTHERS

24. Mixed cranial nerves are—V, VII, IX and X.
25. Pulpal innervation of maxillary teeth is as follows:
    - Incisors and Canines—Anterior superior alveolar nerve.
    - Premolars and Mesiobuccal root of first molar—middle superior alveolar nerve.
    - Distobuccal root of first molar and II and III molars—posterior superior alveolar nerve.
26. Pulpal innervation of Mandibular teeth is as follows:
    - Incisors and Canines—Incisive nerve.
    - Premolars and Molars—Inferior alveolar nerve.
27. Mucoperiosteal nerve supply is as follows:
    - Maxillary buccal—Anterior, middle and posterior superior alveolar nerve.
    - Palatal—Nasopalatine and greater palatine.
    - Mandibular buccal–Long buccal nerve.
    - Lingual—Lingual nerve.
28. Cranial nerves with unique features:
    - Longest—Vagus nerve.
    - Shortest—Olfactory nerve.
    - Largest—Trigeminal nerve.
    - Longest intra-osseous course—Facial nerve.
    - Longest intra-cranial course—Trochlear nerve.
    - Thickest—Optic nerve.
    - Only nerve that originates from the dorsal surface—Trochlear nerve.
29. Four nerves that carry parasympathetic fibers are as follows:
    - Oculomotor.
    - Facial.
    - Glossopharyngeal.
    - Vagus.
30. Arterial supply of face is by two branches of external carotid artery–Facial artery and Transverse facial artery (branch of superficial temporal artery).
31. Areas of face supplied by internal carotid artery are:
    - Orbital structures—Orbital artery.

JAYPEE BROTHERS

- Skin of forehead—Supratrochlear and Supraorbital.
- Eyelids—Medial palpebral branch.
- Upper part of nose—Dorsal nasal branch.

32. Venous drainage of face is by common facial vein.
33. Upper lip and lower part of the nose constitute danger area of face. This is because facial vein which drains these regions is connected to the cavernous sinus through deep facial vein and pterygoid plexus. Infection can spread from danger area to the cranium.
34. The retromandibular vein is formed by union of the superficial temporal and maxillary veins. It splits into two.
    - Anterior division unites with facial vein to form common facial vein.
    - Posterior division unites with posterior auricular vein to form external jugular vein.
35. Muscles of the eyeball are supplied by ophthalmic artery (branch of cerebral part of internal carotid artery).
36. Arterial supply of tongue is by lingual artery and venous drainage is by deep lingual vein.
37. On the basis of its relation to lateral pterygoid muscle, maxillary artery is divided into three parts—mandibular, pterygoid and pterygopalatine.
38. Upper jaw and teeth are supplied by infraorbital artery and palatine artery, which are branches of posterior superior alveolar artery.
39. Lower jaw and teeth are supplied by inferior alveolar artery.
40. Veins of the face have no valves. They drain into the neck and into the skull.
41. Pterygoid plexus is a network of veins which lies within and around lateral pterygoid muscle. It is drained by maxillary vein. It communicates with—Facial vein, cavernous sinus and inferior ophthalmic vein.
42. The lymphatic flow is unidirectional. Lymph channels possess valves that prevent backward flow of lymph.
43. The movement of lymph with lymphatic capillaries is dependent on skeletal muscle contraction.
44. Lymph nodes are secondary lymphoid organ and are the major sites of production of B lymphocytes.

JAYPEE BROTHERS

45. The three major functions of lymph are—fluid balance, defense against diseases and fat absorption.
46. Largest lymphoid organ is spleen.
47. Largest lymphatic vessel is thoracic duct.
48. In head and neck, lymphatics are absent in:
    - Cornea.
    - Central nervous system.
    - Superficial skin.
    - Bones.
49. Superficial lymph nodes are—submandibular, sublingual, parotid, mastoid and occipital nodes.
50. Deep lymph nodes are retro-pharyngeal, pre-tracheal, pre-laryngeal and cervical nodes.
51. The entire lymph from head and neck drains ultimately into deep cervical nodes.
52. Waldeyer's ring includes the following lymph nodes:
    - Two palatine tonsils.
    - Two tubal tonsils.
    - One lingual tonsil.
    - One pharyngeal tonsil.
53. Drainage of the nodes of head and neck are as follows:
    - Teeth and Upper lip—Submandibular nodes.
    - Lower lip and Tip of tongue—Submental nodes.
    - Anterior two-third of tongue (lateral region)—Submandibular nodes.
    - Anterior two-third of tongue (medial region)—Deep cervical nodes.
    - Posterior one third of tongue—Retropharyngeal nodes.
    - Anterior region of nasal cavity—Submandibular nodes.
    - Posterior region of nasal cavity—Deep cervical nodes.
54. FDI system is universally accepted system of tooth numbering and it is also accepted by WHO.
55. Variation of about 12 to 24 months for permanent teeth and 4 to 8 months for primary teeth of the expected eruption time is considered normal.

JAYPEE BROTHERS

56. Time of calcification and eruption can be used for age estimation, an important tool for forensic dentistry.
57. The spaces between the roots of maxillary first molar are known as 'furcation crotches'.
58. Oblique ridge runs from mesiolingual cusp to distobuccal cusp.
59. Cusp of carabelli is present on mesiolingual cusp in maxillary first molar.
60. In Maxillary first molar, Cusp size—ML>MB> DL> DB> 5TH.
61. In Mandibular first molar, Cusp size—MB>ML=DL>DB>Distal.
62. Permanent molars decrease in size from first to third, i.e. first>second>third.
63. In maxillary molar, size of distobuccal decreases from the first molar to third molar.
64. Occlusal surface of maxillary third molar is heart shaped.
65. Occlusal grove pattern in mandibular first molar is "Y" shaped and in second molar is "+" shaped.
66. Occlusal surface of mandibular third molars give wrinkled appearance because of supplementary grooves (one more tooth with this appearance is Maxillary second premolar).
67. Palatoradicular groove is present in maxillary lateral incisor.
68. Mesial marginal developmental groove and mesial marginal depression are seen in maxillary first premolar.
69. Mesiolingual developmental groove is present in mandibular first premolar.
70. Canines are called cuspids and premolars are called bicuspids.
71. Maxillary first premolar is the only premolar with two roots, rest all premolars have one root.
72. Mandibular central incisor is the most symmetrical tooth in permanent dentition.
73. Mandibular canine has the longest crown in permanent dentition. Maxillary canine has the longest root in permanent dentition.
74. Occlusal outline of Mandibular first molar—pentagonal, second molar is rectangular and third molar is ovoid.

JAYPEE BROTHERS

75. Occlusal outline of Maxillary first and second molar—rhomboid and third molar is heart shaped.
76. Parastyle is tubercle on mesiobuccal cusp of maxillary first molar whereas Protostylid is tubercle on mesiobuccal cusp of mandibular first molar.
77. Mandibular first premolar is smaller than mandibular second premolar.
78. Groove patterns in mandibular second premolar—"Y" (three cusp type) and "U" and "H" (two cusp type).
79. Cervical ridge is prominent in the labial surface of incisors and buccal surface of molars and is called as 'labial cingulum' and 'buccal cingulum' respectively.
80. Deciduous maxillary molars are larger than deciduous maxillary anterior teeth in all aspects and have three roots.
81. Deciduous maxillary first molar is uniquely shaped and resemble an intermediate between permanent maxillary premolar and molar.
82. Two occlusal patterns are seen in deciduous maxillary first molar–the four cusp type and the three cusp type.
83. Deciduous maxillary second molar resembles the permanent maxillary first molar and has five cusps—MB, DB, ML, DL and Cusp of Carabelli.
84. Deciduous mandibular first molar is unique in shape and does not resemble any other tooth in human dentition.
85. Deciduous mandibular second molar resembles permanent mandibular first molar.
86. Roots of primary molars are flared beyond the mesiodistal and buccolingual outline of the crown to accommodate the developing premolars.
87. Deciduous first molar erupts before deciduous canines.
88. Primate spaces are seen in maxillary arch between lateral incisor and canine and in mandibular arch between canine and first primary molar.
89. Molar relationship in primary dentition is determined by terminal planes (concept given by Moyers).

JAYPEE BROTHERS

90. Mesial step indicates greater probability of class I and lesser probability of class III molar relationship in permanent dentition.
91. Distal step terminal plane leads to—Class II in permanent dentition.
92. Leeway space is greater in mandible (1.7 mm per side) than in maxilla (0.9 mm per side).
93. Normal depth of Curve of spee is 1.5 mm as measured at second premolar (where curve assumes maximum depth).
94. Bonwill's triangle is an equilateral triangle of 4 inches.
95. In curve of Monson, glabella is the center (sphere radius is 4 inches).
96. In mandibular arch, both anterior and posterior teeth are mesially inclined. In maxillary arch anteriors are mesially inclined whereas posteriors are inclined distally.
97. Centric occlusion refers to relationship between maxillary and mandibular dentition when they are in maximum occlusal contact.
98. Centric relation refers to most posterior position of mandible relative to maxilla.
99. Palatal cusps of maxillary posteriors and buccal cusps of mandibular posteriors are supporting cusps or functional cusps.

Hisotlogy

100. Formation of primitive oral cavity takes place at 5 to 6 week of gestation.
101. Important Timelines:
    - 8th week—vestibular lamina complex
    - Pulp—8 week
    - TMJ—10 week
    - Condyle—10 to 12 weeks
    - Parotid gland—4 to 6 weeks
    - Submandibular gland—6 weeks
    - Capillaries & collagen fibre—8 to 12 weeks
    - Sublingual gland—8 to 12 weeks
    - Masticatory mucosa—10 to 12 weeks
    - Elastic fibres—17 to 20 weeks
    - Reticular fibre—6 to 8 weeks

JAYPEE BROTHERS

102. Oblique facial cleft is formed due to lack of fusion of maxillary & lateral nasal cleft.
103. Bilateral cleft lip is formed due to lack of fusion of maxillary and median nasal process.
104. Median cleft lip is formed due to lack of fusion of the two median nasal processes.
105. Macrostomia is due to failure of the maxillary and mandibular processes to fuse.
106. Microstomia is due to excessive merging of mandibular and maxillary process.
107. Tongue is derived from first, third and fourth pharyngeal arches.
108. Primary palate is the part of palate comprising central and lateral incisors, derived from frontonasal process (premaxilla).
109. Morula is 16 cell stage and is solid.
110. Morula with a cavity is called as blastocyst.
111. Meckel's cartilage does not form any part of mandible, it just guides the formation.
112. Mandible is an intra-membranous bone, except condyle, coronoid and symphysis (mental region) regions, which undergo endochondral ossification.
113. First pharyngeal arch is called as Mandibular arch.
114. Second pharyngeal arch is also called as Hyoid arch.
115. Frontonasal process is also called as Globular process or Premaxilla. Hence the name of developmental cyst found between maxillary lateral incisor and canine is Globulo-maxillary cyst or Premaxilla-maxillary cyst—a cyst formed from the entrapment of epithelium between these two processes (obsolete concept).
116. Formation of primary teeth starts at 6 week to 8 week.
117. Enamel organ is composed of outer enamel epithelium, inner enamel epithelium, stellate reticulum & stratum intermedium.
118. Basic function of enamel organ is formation of enamel.
119. Cells of tòoth germ are derived from ectoderm of first pharyngeal arch & ectomesenchymal of neural crest cells.
120. Formation of permanent teeth starts at 12 week of intrauterine life.

JAYPEE BROTHERS

121. Tooth germ is organised into 3 parts (1) enamel organ (avascular) (2) dental papilla (3) dental sac/follicle.
122. Cells of enamel organ gives rise to ameloblast & become a part of reduced enamel epithelium after maturation of enamel.
123. Dental Sac has 3 types of cells—cementoblasts (form cementum), osteoblasts (form bone) and fibroblasts (form PDL).
124. Dental Papilla has 2 types of cells—odontoblasts (formation of dentin) & mesenchymal cells (pulp formation).
125. Time line of human tooth development:
    - Age 42–48 days—Intrauterine life, dental lamina formation
    - 14 weeks—bell stage for dec teeth & bud stage for permanent teeth
    - 55–56 days—bud stage of decs incisors, canines & molars
    - 18 weeks dentin & ameloblast in deciduous teeth
    - 32 weeks dentin & ameloblast in permanent first molar.
126. All stages (bud, cap, bell, crown) growth & morphogenesis of teeth are regulated by a protein c/a sonic hedgehog (SHH).
127. Hormone required for tooth eruption—parathyroid hormone.
128. Enamel knot, enamel cords & enamel niche all are seen in bell stages.
129. Patterning genes for tooth formation are MSX, DLX, BARX
    - Molar—BARX1 & DLX1, 2
    - Incisor—MSX1, MSX2, ALX3
    - Premolars—MSX1
    - Canines—DLX1/2.
130. Oligodontia occur because of mutation in MSX1 & PAX9 gene.
131. Ectopic tooth formation is due to mutation in LEF1 gene.
132. All four layers of enamel organ are seen in bell stage of tooth development.
133. Supernumerary teeth are results of disturbance in proliferation stages of tooth development.
134. Histodifferentiation stage is related to bell stages of enamel organ.
135. Enamel hypoplasia, hypo calcification, intrinsic staining & concrescence is due to abnormal *apposition*.

JAYPEE BROTHERS

136. Dentinogenesis imperfecta or formation of atypical dentin are example of disturbance of histodifferentiation.
137. Morphodifferentiation stage is related to advanced bell stage of enamel organ e.g., dens in dente, peg shaped tooth, etc.
138. Supernumerary roots are common in mandibular canine & premolars.
139. Enamel niche is appearance of tooth germ having double attachment to oral epithelium.
140. Dental follicle is *not* a part of tooth bud.
141. Shape of the cells of stratum intermedium is flat.
142. Stellate reticulum is also called as pulp of enamel organ.
143. Enamel is a semipermeable membrane.
144. Enamel forms at the rate of 4 μm/day.
145. Ions present in enamel are strontium, magnesium, lead and fluoride.
146. Enamel is ectodermal in origin.
147. Vit A is important for enamel development.
148. Important disorder related to enamel formation is amelogenesis imperfecta.
149. Excessive fluoride can cause mottled enamel.
150. Formative stage is the stage of enamel matrix formation.
151. Reduced enamel epithelium is formed at protective stage.
152. Tomes processes is the projection of ameloblasts into enamel matrix.
153. Turner tooth—maxillary anterior (central incisor) & mandibular second premolar are commonly involved.
154. Hunter schreger bands/enamel tufts and enamel lamellae are ectodermal origin.
155. Enamel spindle—ectomesenchymal origin.
156. Plastic dental tissue is enamel and Elastic dental tissue is dentin.
157. Enamel thickness maximum at cusp tip.
158. Nitrogen is found in superficial enamel layer of older teeth.
159. Pulp is a loose vascular (fibrovascular) connective tissue.
160. Most numerous cell in pulp is fibroblast.

JAYPEE BROTHERS

161. Second most common cells in pulp are Odontoblast.
162. Wandering cells in pulp are histocytes.
163. Weigert stain is used to identify elastic fibres.
164. With age, number of cells decreases and fibers increases.
165. True pulp stones/denticles contain dentinal tubules.
166. Embedded pulp stones are completely surrounded by dentin.
167. Diffuse calcifications are usually seen along the blood vessels.
168. Some researchers believe, with progress of time the attached pulp stone becomes attached to dentin and is ultimately embedded in the dentin.
169. Pulp stones are one of the major hindrances for RCT, apart from variable morphology.
170. Vitality of pulp is determined by it blood supply and not by its nerve supply.
171. Subodontoblastic plexus of Raschkow occupies the cell free zone of weil.
172. Cell rich zone is also called as Layer of Hohl.
173. Substansia Ossea Dentis is another name for cementum.
174. Cellular cementum is absent in cleidocranial dysplasia.
175. Cementum is thinnest at CEJ and Thickest in apical third.
176. Knobs like projection of cementum is are called excementoses.
177. The processes of cementocytes in canaliculi are directed towards the PDL.
178. In 10% cases, there is a gap between the cementum and enamel.
179. Cementum present over the surface of enamel is Acellular afibrillar cementum.
180. Cementum is usually thicker around:
    - Apex of the tooth
    - Furcations of multi-rooted teeth.
181. Hypercementosis is seen in:
    - Excessive tension from orthodontic appliances or occlusal forces,
    - In teeth without antagonists,

JAYPEE BROTHERS

- Low grade periapical infection,
- Paget's disease.

182. Normal thickness of PDL is 0.15 to 0.38 mm.
183. Average width is 0.21 mm at 11 to 16 year of age, 0.18 mm at 32 to 56 year of age & 0.15 mm at 51 to 67 year.
184. Thickness progressively decreases with age.
185. PDL has 70% water.
186. Maximum number of fibers present in PDL are oblique fibers. They resist apically directed masticatory forces.
187. Major basic bone matrix protein BSP, osteopontin, osteocalcin, and collagen 1.
188. RANKL & RANK play major role in bone resorption.
189. Bone turnover rate is 30 to 100% per year in rapidly growing children.
190. Rate of cortical bone turn overrate 5% year whereas turnover rate of trabecular bone & endosteal surface of cortical bone can approach 15% per year.
191. Rapid remodeling of the alveolar bone is utilized in orthodontic tooth movement.
192. In acute blood loss the yellow marrow is converted to red marrow.
193. Maintains level of the tooth with in the oral cavity.
194. Distribute the occlusal load to the adjacent tissue through PDL.
195. Loss of lamina Dura(diagnostic for perapical changes).
196. Disappears gradually after the tooth is lost.
197. Odland bodies are present in uppermost cells of stratum spinosum.
198. Function of odland bodies is retention of fluid.
199. Mushròom shaped papillae are fungiform papillae.
200. Most abundant papillae are filliform papillae.
201. The only papillae which are keratinized are filliform papillae (circumvallate are partially keratinized).
202. The only papillae which does not have any taste buds are filliform papillae.

JAYPEE BROTHERS

203. The first papillae to get atrophied in any condition (like anemia, glossitis) is filliform papillae.
204. The most vascular papillae if fungiform papillae.
205. Taste sensation present on tongue are for bitter, sour, sweet, salty, umami (glutamic acid).
206. Nonkeratinized epithelium has shorter turn over time, is more thick (20 to 50 cell layers compared to 18 to 30 layers), flexible & distendable.
207. In keeping with complete or almost complete keratinization (ortho or para), the histo enzyme reaction for Acid phosphatase & Pentose shunt enzymes are very strong.
208. So in ortho & para keratinized epithelium glycogen is completely degraded by any of glycolytic pathways while in nonkeratinized epithelium we see glycogen content in intermediate layer.
209. As inflammation will reduce the keratinization, the concentration of glycogen in gingival epithelium indicates degree of inflammation.
210. Glycogen content—inflammation—1/degree of keratinization.
211. There are 19 types of keratin according to their molecular weight, K1 (68 kd) to K19 (40kd).
    - K1, K2, K10, K12—Specific for epidermal type differentiation, expressed more in ortho, less in para & not present in nonkeratinized mucosa.
    - K6 & K16—Characteristic of highly proliferative epithelium (exception is junctional epithelium).
    - K5 & K14—Stratification specific cytokeratin.
    - K19—Seen in parakeratinized, not present in orthokeratinized.
212. Melanocytes are associated with several pigmented lesions of oral mucosa.
213. Oral melanotic macule—Clinically mimicks a freckle. Histologically it reveals increased production of melanin without increase in melanocyte numbers. It is a harmless condition.
214. Nevus (Mole)—Benign proliferation of melanocytes. Clinically difficult to distinguish from melanoma.
215. Melanoma—A malignant tumor of melanocyte. Rare in oral cavity.
216. Secretions of serous gland are rich in albumin.

JAYPEE BROTHERS

217. Zymogen granules contain amylase.
218. Demilunes of giannuzzi are seen in serous cells.
219. Formation of saliva takes place in two stages.
220. In first stage primary saliva (isotonic) is secreted by cells of secretory end pieces and intercalated duct.
221. In second stage primary saliva is modified as it passes through the striated and excretory ducts by reabsorption and secretion of electrolytes (saliva formed is HYPOTONIC).
222. Major buffer in saliva is carbonate & bicarbonate.
223. Sialendoscopy is a technique that allows the visualization and removing the sialoliths in primary and secondary ductal systems.
224. Maxillary sinus:
    - Maxillary sinuses are largest of all sinuses.
    - These are the first sinuses to develop.
    - Only sinus to be present at birth.
    - Volume of Maxillary sinus is 15 mL.
    - Also called as Antrum of Highmore.
    - Development starts at 32 mm of crown hump length fetus.
    - It is pyramidal in shape.
225. **Hiatus semilunaris**
    - Half moon shaped depression seen in lateral wall of the nose
    - Landmark of openings of air sinuses.
        - Superiorly: Frontal sinus opening
        - Middle: Ethmoidal air sinuses
        - Inferiorly: Maxillary air sinus
226. Retained deciduous teeth—Without permanent successors or if successors are impacted. Most common retained teeth are upper lateral incisors.
227. Submerged deciduous teeth:
    - Cause can be trauma to either the dental follicle or the developing periodontal ligament.
    - Because of continued eruption of adjacent teeth and increased height of alveolar bone, they appear "submerged".

JAYPEE BROTHERS

for detailed information on PGMEE books, visit our website www.jaypeebrothers.com, for detailed information on PGMEE books, visit our w

Last Minute Revision Points
for
NEET-MDS/AIIMS-MDS/PGI-MDS

The book *Last Minute Revision Points for NEET-MDS/AIIMS-MDS/PGI-MDS* is the first of its kind and a much need of the hour in the entire Dental education sector. This book will be of immense help to all the BDS doctors aspiring for MDS entrance especially the three national level examinations. The uniqueness of the title lies in its idealistic approach towards solving the MCQs i.e. by *solving the problem directly*, what we popularly call as – *fill in the blanks methodology*. If the students start reading and remembering these MCQs as one-liners (as given in this book), they'll never get confused between the options, hence will score much higher. Also, these one-liners are the easiest for a quick revision of all subjects in last month of preparation.

Salient Features

- The Last Minute Revision Points (LMRPs) are written by the Best Faculties for MDS entrance in India
- Accuracy of the content – with all latest updates incorporated from latest editions of the textbooks
- Covers all 19 subjects relevant to NEET MDS exam. Also included are relevant LMRPs from subjects like PSM, Anaesthesia and ENT which are important from NEET and AIIMS point of view.
- A new section added in the last called: Funda-Mentals, which includes only most important concepts and facts from all major subjects which have been asked in the past papers.
- A special chapter on Hematology – the most important topic from medical subjects.
- Easy to read and remember these LMRPs, especially during the last days of preparation like a month/week/days before the main exams.
- Many questions in the upcoming exams are expected from such an elaborate yet precise compilation.

Amit Lal is a mentoring force for all MDS aspirants across the Indian subcontinent since 2006, with an impeccable career record of maximum selections of his students in MDS entrances in last 12+ years.

Jasmine Lal is very popular amongst students for constant motivation towards success in career and life, apart from her lectures in physiology and medicine for MDS entrance.

Nachiket Bhatia is a famous personality amongst students pan India in the medical sector of PG entrance, and is also a co-author in the title LMRP for NEET-PG.

Available at all medical bookstores
or buy online at www.jaypeebrothers.com



JAYPEE BROTHERS
Medical Publishers (P) Ltd.
www.jaypeebrothers.com

Join us on facebook.com/JaypeeMedicalPublishers

