



CRANIOFACIAL-II MODULE

3rd Year BDS

TABLE 1: THEMES

S#	Theme	Duration in Hours/Weeks
1	Orofacial pain and Headache	28 hours
2	Orofacial swellings	29 hours
3	Orofacial deformity/asymmetry/aesthetic imbalance/functional difficulty	30 hours
4	Non healing lesions	38 hours
		Total: 125 hours

Teaching Hours Allocation

Table 2: Hours allocation for different subjects

S. No	Subject	Hours
1	Oral pathology	53 hours
2	Oral medicine diagnosis and treatment	16 hours
3	Periodontology	19 hours
4	General Medicine	8 hours
5	General Surgery	8 hours
7	Oral and Maxillofacial Surgery	14 hours
8	Pre-Clinical Prosthodontics	7 hours
	Total	125

General Learning Objectives

By the end of this Module, 3rd year BDS students will be able to:

1. Describe the etiology, pathogenesis, clinical, radiographic, and histopathological features of inflammatory disorders of bone such as alveolar osteitis and osteomyelitis.
2. Define, classify, and describe odontogenic and non-odontogenic cysts and discuss their clinical, radiographic and histopathological presentations.
3. Classify odontogenic tumors (epithelial, mesenchymal, and mixed) and describe their pathogenesis, clinical, radiological, and histopathological features.
4. Explain the classification, etiopathogenesis, clinical-radiographic-histopathological features, and syndromic associations of benign and malignant bone tumors of the jaws, including tori, osteoma, chondroma, osteosarcoma, chondrosarcoma, and Ewing's sarcoma.
5. Define and classify fibro-osseous lesions and describe features of fibrous dysplasia, ossifying fibroma, cemento-osseous dysplasias, and cherubism.
6. Enlist and describe developmental anomalies of teeth (number, size, shape, structure, and eruption) and relate them to craniofacial syndromes.
7. List the developmental, metabolic, and endocrine disorders of bone (Paget's disease, rickets, hyperparathyroidism, osteomalacia) and describe their clinical, radiographical and histopathological features.
8. Recall the salient features of Oral Potentially Malignant Disorders (OPMDs).

9. Define epithelial dysplasia, list its architectural and cytological features, and describe its histopathological grading while distinguishing carcinoma in situ from invasive squamous cell carcinoma.
10. Distinguish various white lesions—including frictional keratosis, nicotinic stomatitis, chemical burn-related keratosis, leukoedema, and white sponge nevus—based on etiopathogenesis and diagnostic characteristics.
11. Explain the etiological factors, risk determinants, molecular basis (oncogenes and tumor suppressor genes), clinical presentation, prognostic indicators, and histopathological grading/staging of oral squamous cell carcinoma.
12. Describe the clinical, radiographic, and histopathological features of major variants of oral and cutaneous carcinomas, including verrucous carcinoma, spindle cell carcinoma, and basal cell carcinoma.

Table 1: Learning Objectives Theme-wise

Theme I: OROFACIAL PAIN AND HEADACHE			
S.No	Topic	Hours	Learning objectives
Oral Pathology			
1.	Tooth wear	1	<ol style="list-style-type: none"> 1. Define tooth wear 2. Describe the main types of tooth wear such as attrition, abrasion, erosion, and abfraction. 3. Distinguish etiological factors contributing to each type of tooth wear. 4. Describe clinical features of tooth wear, including hypersensitivity, loss of vertical dimension, and associated pain. 5. Describe systemic and local causes (e.g., bruxism, GERD, dietary acids) associated with patterns of wear. 6. Discuss consequences of advanced wear (pulpal inflammation, periapical lesions, cracked tooth syndrome).
2.	Inflammatory disorders of bone	2	<ol style="list-style-type: none"> 7. Enumerate inflammatory disorders of bone. 8. Describe etiology and pathogenesis of alveolar osteitis and osteomyelitis. 9. Discuss clinical features of alveolar osteitis (dry socket) and list different types of osteomyelitis. 10. Describe acute and chronic osteomyelitis clinically and radiographically. 11. Explain histopathological features of osteomyelitis. 12. Distinguish osteomyelitis from other radiolucent lesions of the jaw (such as central giant cell granuloma and cystic lesions). 13. Define osteoradionecrosis and MRONJ. 14. Explain their pathogenesis. 15. Discuss salient features of osteoradionecrosis and MRONJ.

General Medicine

3.	Trigeminal Neuralgia and Giant cell arteritis	1	16. Describe the pathophysiology of trigeminal neuralgia and GCA. 17. Differentiate between the two pathologies on clinical grounds 18. Develop an effective clinical approach to these symptoms. 19. Outline the treatment plan for TN and GCA
4.	Headache syndrome	1	20. Enlist different types of headaches. 21. Discuss the diagnosis of Headache Syndrome. 22. Enumerate red flags and plan investigations accordingly. 23. Discuss the treatment plan.
5.	Facial nerve weakness	1	24. Discuss the etiological factors behind Facial nerve weakness 25. Discuss the main clinical features in the history and examination of Bell's palsy 26. Differentiate between upper and lower neuron types of facial weakness 27. Outline the treatment plan for Bell's palsy.
6.	Seizures (Epilepsy)	1	28. Define epilepsy and seizures. 29. List the common types and causes of epilepsy. 30. Differentiate between epileptic seizures and other causes of transient loss of consciousness. 31. Enlist the investigations to reach the cause of seizures. 32. Discuss the management of epilepsy. 33. Enlist the side effects of common antiepileptic drugs.
7.	Cerebro-vascular Accident (CVA)	1	34. Define cerebrovascular accident. 35. Enlist different types of stroke. 36. Describe the risk factors of Stroke. 37. Discuss the main clinical features of stroke. 38. Outline investigation plan for stroke. 39. Describe treatment options for stroke. 40. Enlist complications and the preventive strategies of Stroke
8.	Gullain-Barré Syndrome (GBS)	1	41. Define Guillain-Barré Syndrome 42. Enlist main clinical variants of GBS.

			<p>43. Enlist the infectious agents and immune mechanisms commonly associated with the development of GBS.</p> <p>44. Differentiate between various subtypes of GBS based on their clinical features.</p> <p>45. Discuss the role of molecular mimicry in the immunopathogenesis of GBS.</p> <p>46. Outline the diagnostic approach to a patient with suspected GBS.</p> <p>47. Enumerate the principles of management and prognostic factors in GBS.</p>
Oral Medicine			
9.	Orofacial pain	3	<p>48. Define orofacial pain</p> <p>49. Classify different types of pains affecting the head and neck</p> <ul style="list-style-type: none"> • Somatic pain (odontogenic, maxillary sinus etc.) • Neurogenic pain • Pain from Vascular origin • Psychogenic pain <p>50. Describe in detail the clinical features, pathophysiology, diagnosis and management plan of the following conditions affecting the head and neck</p> <ul style="list-style-type: none"> • Trigeminal neuralgia • Pre-trigeminal neuralgia • Post herpetic neuralgia • Glossopharyngeal neuralgia • Ramsay hunt syndrome • Neuropathic pain secondary to other conditions • Giant cell arteritis • Migraine • Cluster headache • Tension headache
10.	Neurological disorders 1. Multiple sclerosis 2. Frey's syndrome	1	<p>51. Describe the clinical features, pathophysiology, diagnosis and management plan of</p> <ul style="list-style-type: none"> • Frey's syndrome • Multiple sclerosis\ • Facial nerve paralysis

	3. Facial nerve paralysis		
11.	Psychogenic oro facial problems Atypical facial pain Atypical odontalgia Oral dysesthesia Burning mouth syndrome Delusional symptoms Self-injurious behavior Dysmorphophobia Drugs and alcohol	2	52. Discuss in detail the clinical features, causes, diagnosis and management for patient with <ul style="list-style-type: none"> • Atypical facial pain • Atypical odontalgia • Oral dysesthesia • Burning mouth syndrome • Self-injurious behavior • Dysmorphophobia • Drugs and alcohol
12.	Medical emergencies in dentistry Prevention of medical emergencies	1	53. Discuss the principles of clinical risk management for a patient undergoing dental treatment. 54. Discuss the significance of ASA (American society of Anesthesiologist) classification 55. Enlist the common drugs used in emergency along with necessary equipment in dentistry. 56. Discuss the indication and protocols of emergency drugs in dentistry. 57. Discuss the ABCDE protocol for emergency management in dentistry. 58. Discuss the significance of CPR
13.	Syncope	1	59. Discuss in detail the causes, clinical features, diagnosis, prevention, management and complications of a patient with syncope undergoing dental treatment.

14.	Epileptic seizures and CVA stroke)	1	60. Discuss in detail the causes, clinical features, diagnosis, prevention, management and complications of a patient with epilepsy and status epilepticus undergoing dental treatment. 61. Discuss in detail the causes, clinical features, diagnosis, prevention, management and complications of a patient with stroke undergoing dental treatment. 62.
Periodontology			
15.	Bone loss Patterns in Periodontology and Trauma from Occlusion	2	63. Differentiate between different Bone destruction patterns in periodontal disease 64. Describe Bone destruction caused by trauma from occlusion and systemic disorders 65. Discuss the factors determining bone morphology in periodontal disease 66. Differentiate between <ul style="list-style-type: none"> • Acute & Chronic trauma from occlusion • Primary & Secondary trauma from occlusion 67. Describe consequences of trauma from occlusion. 68. Discuss tissue response of trauma from occlusion. 69. Explain the role of occlusal adjustment and splinting in management of TFO
General Surgery			
16.	Trigeminal Neuralgia	1	70. Describe the etiology & pathophysiology of Trigeminal neuralgia 71. List the clinical features and investigations for diagnosis of trigeminal neuralgia. 72. Describe briefly the surgical techniques used in the management of this disease.
17.	Head Injury	2	73. Classify Head Injury. Describe the Glasgow Coma scale. 74. Discuss the clinical presentation and radiological features of head injury. 75. List the indications for CT scan in head injury. 76. Explain the ABCDE approach and the definitive surgical management of head injury.

Oral and Maxillofacial Surgery			
18.	Introduction to Maxillofacial Trauma	1	77. Enumerate causes of maxillofacial trauma. 78. Discuss primary and secondary survey. 79. Explain clinical features of a patient with maxillofacial trauma.
19.	Anatomic Considerations for LA	1	80. Describe the main anatomical features of the maxilla and mandible in relation to local anesthesia. 81. Discuss the clinical importance of key landmarks, e.g., infraorbital foramen, maxillary tuberosity, mental foramen, and mandibular foramen. 82. Explain the bone structure, i.e., cortical vs. cancellous, in relation to the effectiveness of local anesthesia in the maxilla and mandible. 83. Explain the course and significance of major neurovascular structures, e.g., infraorbital, inferior alveolar, and mental nerve, in relation to dental procedures. 84. Describe anatomical variations of the maxilla and mandible to their clinical implications in oral surgery and anesthesia techniques.
20.	Trigeminal Nerve	1	85. Describe the origin, course, and distribution of each division of trigeminal nerve, i.e., ophthalmic, maxillary, and mandibular. 86. Explain the sensory and motor functions of the trigeminal nerve. 87. Recall the sensory areas of the face supplied by each division. 88. Discuss the clinical relevance of the trigeminal nerve, including neuralgia, anesthesia, and nerve injuries.
Prosthodontics			
21.	Direct retainers	2	89. Define a direct retainer. 90. Discuss the function of direct retainer in a removable cast partial denture. 91. Discuss basic principles of clasp design. 92. Classify direct retainers based on location. 93. Explain the components of a clasp assembly. 94. Compare commonly used clasp designs.

			95. Explain the concept of reciprocation and bracing. 96. Describe the factors affecting the effectiveness of direct retainers.
Theme-II: Orofacial Swellings			
Oral Pathology			
22.	Odontogenic cysts	4	97. Define cyst 98. Define odontogenic and non-odontogenic cysts 99. Classify cyst of jaw according to etiology and tissue of origin 100. Define radicular cyst 101. Describe clinical, radiographical and histopathological features of radicular cyst 102. Explain pathogenesis of radicular cyst 103. Explain expansions of cyst 104. Define Dentigerous cyst and keratocyst 105. Describe clinical features of Dentigerous cyst and keratocyst 106. Describe radiographic features of Dentigerous cyst and keratocyst 107. Explain histopathological features of Dentigerous cyst Dentigerous cyst and keratocyst 108. Explain pathogenesis of Dentigerous cyst and keratocyst 109. Explain Gorlin Goltz syndrome associated with keratocyst 110. Describe other odontogenic cysts including lateral periodontal cyst, paradental cyst, gingival cyst, eruption cyst and glandular odontogenic cyst.
23.	Non- odontogenic cysts	1	111. Enumerate non odontogenic cyst 112. Describe clinical, radiographical and histopathological features of Non odontogenic cysts.

24.	Non-epithelial primary bone cysts	1	<p>113. List non epithelial primary bone cysts.</p> <p>114. Describe clinical, radiographical and histopathological features of non-epithelial primary bone cysts.</p> <p>115. Enumerate unilocular and multilocular lesions of jaw.</p>
25.	Epithelial odontogenic tumors	4	<p>116. Classify tumours of odontogenic origin.</p> <p>117. Define Ameloblastoma.</p> <p>118. List types of Ameloblastoma clinically, radio graphically and histopathologically.</p> <p>119. Describe clinical and radiographic features of Ameloblastoma with emphasis on follicular and plexiform pattern.</p> <p>120. Explain pathogenesis and behaviour of Ameloblastoma.</p> <p>121. Describe briefly unicystic Ameloblastoma.</p> <p>122. Describe clinical, radiographical and histopathological features of AOT and CEOT.</p> <p>123. Describe remaining epithelial odontogenic tumours including squamous odontogenic cyst and calcifying odontogenic cyst.</p>
26.	Mesenchymal odontogenic tumors	2	<p>124. Enumerate mesenchymal odontogenic tumors (odontogenic fibroma, odontogenic myxoma, cementoblastoma, others).</p> <p>125. Explain the pathogenesis and tissue of origin for each tumor type.</p> <p>126. Describe their clinical features and their radiographic features.</p> <p>127. Describe histopathological characteristics of each tumor.</p>

27.	Mixed odontogenic tumors	2	<p>128. Enlist different odontomes occurring in oral cavity.</p> <p>129. Define complex and compound odontomes.</p> <p>130. Discuss clinical, radiographical and histopathological features of complex and compound odontomes.</p> <p>131. Describes pathogenesis, clinical, radiographic, and histopathological features of invaginated odontomes.</p> <p>132. Explain briefly evaginated odontome and enamel pearl.</p> <p>133. Summarize the clinical, radiological, and histological features of remaining mixed odontogenic tumors (e.g., ameloblastic fibroma, ameloblastic fibro-odontoma).</p> <p>134. Describe malignant mixed odontogenic tumors (e.g., ameloblastic fibrosarcoma) in a tabulated form for classification, clinical, radiographic, and histological features.</p>
28.	Tumours of bone	2	<p>135. Define and classify benign and malignant bone tumors of the jaws.</p> <p>136. Enumerate types of tori and describe clinical and radiographical features of tori.</p> <p>137. Describe etiology, clinical, radiographic, and histopathological features of benign jaw tumors such as osteoma and chondroma and Correlate syndromic associations, with emphasis on Gardner syndrome.</p> <p>138. Describe etiology, pathogenesis, clinical presentation, radiographic and histopathological features of osteosarcoma, chondrosarcoma, and Ewing's sarcoma.</p>
29.	Central giant cell granuloma (CGCG)	1	<p>139. Define CGCG</p> <p>140. Discuss clinical, radiographical and histopathological features of CGCG</p>

Periodontology

30.	Gingival Enlargement	2	<p>141. Recall the classification of gingival enlargement</p> <p>142. Describe clinical and histopathological features of different types of gingival enlargement</p> <p>143. Discuss the management strategies of gingival enlargement according to the periodontal treatment plan</p>
31.	Periodontal Health in Children	1	<p>144. Describe age-specific periodontal conditions</p> <p>145. Discuss syndromic associations (e.g., Down syndrome).</p> <p>146. Outline preventive and therapeutic strategies-</p>
32.	Osseus defects	2	<p>147. Define and explain the concept of osseous deformities and their significance in periodontal disease progression.</p> <p>148. Classify and describe the different types of osseous defects – horizontal, vertical, craters, fenestrations, and dehiscence.</p> <p>149. Discuss the etiologic factors and pathogenesis leading to the development of osseous deformities.</p> <p>150. Explain the diagnostic methods used to detect and evaluate osseous defects clinically and radiographically.</p> <p>151. Differentiate and compare one-wall, two-wall, and three-wall defects based on morphology and regenerative potential.</p> <p>152. Describe and illustrate the surgical approaches used for the correction of osseous deformities, including osteoplasty and ostectomy.</p>

Pre-clinical Prosthodontics

33.	Indirect retainers	1	153. Define an indirect retainer. 154. Describe the role of indirect retainers in distal extension cases. 155. Explain the factors influencing the effectiveness of an indirect retainer. 156. Describe the common forms of indirect retainers.
Oral and Maxillofacial Surgery			
34.	Armamentarium for Local Anesthesia & Maxillary Injection Techniques	2	157. Discuss Armamentarium for Local Anesthesia 158. Describe indications, contraindications, advantages, disadvantages, technique and complications of supraperiosteal injection, Posterior Superior Alveolar nerve block, Middle Superior Alveolar nerve block, Anterior Superior Alveolar nerve block, Greater Palatine nerve block, Nasopalatine nerve block, Maxillary nerve block.
Lab Work			
Oral pathology			
35.	Histopathological interpretation of common Cysts and odontogenic tumors	2	159. Interpret the histopathology & radiography of radicular, dentigerous cyst and OKC under microscope. 160. Interpret the histopathology & radiography of ameloblastoma, complex and compound odontomes under microscope. 161. Interpret the histopathology & radiography of osteosarcoma and multiple myeloma under microscope.
36.	CGCG	2	162. Interpret the histopathology & radiography of giant cell granuloma under microscope.
Theme III: Facial Deformity/Asymmetry			
Oral Pathology			

37.	Disturbance in number, shape and size of teeth.	3	<p>163. Enumerate the abnormalities of morphodifferentiation and histodifferentiation.</p> <p>164. Classify and describe developmental anomalies related to size, number, eruption, and shedding of teeth.</p> <p>165. Describe salient features of hypodontia, anodontia, hyperdontia, microdontia, and macrodontia.</p> <p>166. Define and discuss conditions such as dilaceration, taurodontism, double teeth, and concrescence.</p> <p>167. Correlate these anomalies with syndromes (e.g., cleidocranial dysplasia, Down syndrome, ectodermal dysplasia).</p>
38.	Syndromes with oral manifestations	1	<p>168. Enumerate craniofacial syndromes and explain their genetic and developmental basis.</p> <p>169. Describe the etiology, inheritance pattern, and pathogenesis of Down syndrome, Treacher Collins syndrome, and Crouzon syndrome.</p> <p>170. Explain the characteristic craniofacial and oral manifestations of each syndrome, including facial deformities, dental anomalies, and skeletal abnormalities.</p> <p>171. Describe radiographic and, where relevant, histopathological features associated with craniofacial deformities.</p>
39.	Disturbance in the structure of enamel	1	<p>172. Explain the disturbances in enamel structure occurring in different stages of amelogenesis.</p> <p>173. List the local and systemic causes of enamel developmental anomalies.</p> <p>174. Describe in detail enamel opacities, chronological hypoplasia, congenital syphilis-related enamel defects, and dental fluorosis.</p> <p>175. Recall salient features of amelogenesis imperfecta.</p>

40.	Disturbance in the structure of dentine	1	<p>176. Enumerate the different dentine developmental disorders.</p> <p>177. Define dentinal dysplasia, classify and describe its different types.</p> <p>178. Correlate systemic and metabolic disturbances (e.g., rickets, osteogenesis imperfecta) with dentine anomalies.</p> <p>179. Recall salient features of dentinogenesis imperfecta.</p> <p>180. Outline the role of genetics and molecular mechanisms in dentine developmental anomalies.</p>
41.	Fibro-osseous lesions	3	<p>181. Define and Classify fibro-osseous lesions (fibrous dysplasia, cemento-osseous dysplasias, ossifying fibroma, cherubism).</p> <p>182. Explain the role of genetic mutations in the development of fibro-osseous lesions, with special reference to fibrous dysplasia.</p> <p>183. Describe the clinical, radiographic, and histopathological features of Fibrous dysplasia, Cemento-osseous dysplasias (focal, periapical, florid), Ossifying fibroma (juvenile and conventional types) and Cherubism</p> <p>184. Compare ossifying fibroma with fibrous dysplasia and cemento-osseous dysplasias in terms of clinical, radiological, and histopathological features.</p>
42.	Developmental disorders of bone (osteogenesis imperfecta, osteopetrosis, achondroplasia and cleidocranial dysplasia)	01	<p>185. List various developmental bone disorders</p> <p>186. Describe clinical features of inherited and developmental disorders of bone.</p> <p>187. Describe radiographical features of inherited and developmental disorders of bone.</p> <p>188. Explain the histopathology of inherited and developmental disorders of bone.</p>
43.	Metabolic and endocrine disorders	3	<p>189. Enumerate various metabolic and endocrine disorder of the bone</p>

	(Paget's disease, hyperparathyroidism, Rickets and Osteomalacia)		<p>190. Describe clinical manifestations and etiological factors of Paget's disease, Rickets, Hyperparathyroidism, Osteomalacia and acromegaly</p> <p>191. Describe the radiographic and histopathological features of metabolic and endocrine disorders.</p>
Oral Medicine			
44.	Diseases of lips	1	<p>192. Enlist the diseases of lips.</p> <p>193. Differentiate between different causes of lip swellings and their treatment.</p> <p>194. Describe in detail the aetiology, clinical features, diagnosis and treatment plan for the diseases of lips including:</p> <ul style="list-style-type: none"> • Lip fissures • Angular cheilitis • Allergic cheilitis • Actinic cheilitis • Exfoliative cheilitis • Perioral dermatitis • Lick eczema • Cheilocandidosis
45.	Diseases of tongue	2	<p>195. Describe in detail the aetiology, clinical features, diagnosis and treatment plan for the diseases of tongue including:</p> <ul style="list-style-type: none"> • Developmental anomalies • Morphological anomalies • Tongue fissures • Coated tongue • Hairy tongue • Lingual epithelial atrophy • Traumatic irritation of tongue

			<ul style="list-style-type: none"> • Enlargement of foliate papillae • Geographic tongue • Median rhomboid glossitis • Explain the association of systemic diseases with tongue. Identify the tongue manifestations of systemic diseases and its treatment. <p>196. Enlist the causes of altered/bad taste and its treatment.</p> <p>197. Define halitosis and explain its causes, pathogenesis, diagnosis and treatment</p>
Oral and Maxillofacial Surgery			
46.	Principles of hard tissue biopsy	2	<p>198. Define biopsy</p> <p>199. Enumerate clinical indications of biopsy</p> <p>200. Discuss principles of hard tissue biopsy</p> <p>201. Describe the technique of taking intra osseus biopsy</p>
47.	Management of bony disorders	1	<p>202. Enumerate the indications, merits and demerits of enucleation, marsupialization and curettage</p> <p>203. Enlist the different types of jaw resection</p>
48.	Mandibular Injection Techniques	1	<p>204. Describe indications, contraindications, advantages, disadvantages, technique and complications of the following:</p> <ul style="list-style-type: none"> • Inferior Alveolar nerve block. • Buccal nerve block • The Gow Gates Technique • Vazirani-Akinosi Closed-Mouth Mandibular Block • Mental nerve block. • Incisive nerve block.
Periodontology			
49.	Furcation	2	<p>205. Explain the anatomy of tooth furcation.</p> <p>206. Discuss the etiology of furcation involvement.</p>

			<p>207. Explain various anatomical considerations in furcation management.</p> <p>208. Classify furcation involvement according to Miller & Hamp's classification.</p> <p>209. Discuss management options and prognosis for each class (regeneration/GTR).</p>
50.	Recession	3	<p>210. Define gingival recession and its clinical relevance.</p> <p>211. Discuss etiologic and predisposing factors of gingival recession</p> <p>212. Classify gingival recession according to Miller's classification</p> <p>213. Describe clinical features and diagnosis of gingival recession</p> <p>214. Explain clinical consequences such as sensitivity and esthetic issues.</p> <p>215. Outline preventive and patient education measures.</p>
General Medicine			
51.	Metabolic bone disorder	1	<p>216. Define vitamin D deficiency, osteopenia, and osteoporosis.</p> <p>217. Describe the role of vitamin D and calcium in bone metabolism.</p> <p>218. Explain the pathophysiology of decreased bone mineral density.</p> <p>219. Explain the risk factors, clinical features, and complications of each condition.</p> <p>220. Outline the diagnostic criteria for osteopenia and osteoporosis.</p> <p>221. Discuss the management and prevention, including supplementation, lifestyle changes, and pharmacologic therapy</p>
52.	Acromegaly	1	<p>222. Define Acromegaly and describe its pathophysiology.</p> <p>223. Enlist the clinical features of Acromegaly in adults.</p> <p>224. Outline workup to reach the diagnosis of acromegaly and its etiology.</p> <p>225. Describe the management approach to Acromegaly.</p> <p>226. Enlist complications of acromegaly.</p>
Preclinical Prosthodontics			

53.	Indirect Retainers according to Kennedy classification	1	227. Discuss the auxiliary functions of indirect retainers. 228. Discuss the placement of indirect retainers in: <ul style="list-style-type: none"> • Kennedy Class I distal extension • Kennedy Class II unilateral distal extension • Kennedy Class IV anterior edentulous situations
LAB WORK			
Oral Pathology			
54.	Fibrous dysplasia and ossifying fibroma	2	229. Interpret the histopathology of fibrous dysplasia and ossifying fibroma under microscope.
Theme IV: Non healing lesions			
Oral Pathology			
55.	OPMDs and Epithelial dysplasia	2	230. Enumerate OPMDs and recall their salient features. 231. Define epithelial dysplasia. 232. Enumerate the architectural and cellular features of epithelial dysplasia. 233. Describe histopathological grading of epithelial dysplasia. 234. Distinguish between carcinoma in situ and squamous cell carcinoma.
56.	Keratosis	1	235. Define keratosis 236. Classify white lesions of the oral mucosa according to the aetiology 237. Describe different white lesions of the oral cavity with focus on frictional keratosis, nicotinic stomatitis, Chemical burn-related keratosis, leukoedema and white sponge nevus. 238. Distinguish between different white lesions.
57.	OSCC		239. Define oral squamous cell cancer and describe its various aetiological factors 240. Describe risk factors responsible for causing OSCC

			<p>241. Recall normal cell cycle and describe the role of oncogenes and tumor suppressor genes in cell cycle.</p> <p>242. Describe the factors responsible for good or bad prognosis of OSCC.</p> <p>243. Describe clinical presentation of an early and late lesion for OSCC.</p> <p>244. Explain the patterns and clinical significance of cervical lymph node involvement in oral squamous cell carcinoma, and discuss how nodal status influences staging, prognosis, and treatment planning.</p> <p>245. Describe histopathological grading of OSCC and clinical staging of OSCC</p> <p>246. Enumerate variants of OSCC and briefly describe them.</p> <p>247. Explain the clinical and histopathological features of Verrucous carcinoma, spindle cell carcinoma</p>
58.	Basal cell carcinoma	1	<p>248. Define basal cell carcinoma.</p> <p>249. Describe variants of basal cell carcinoma.</p> <p>250. Describe the clinical features and radiographic features of BCC.</p> <p>251. Discuss various histopathological features basal cell carcinoma.</p>
Oral Medicine			
59.	Pre- malignant lesions and conditions	3	<ul style="list-style-type: none"> ● Define and classify oral pre-malignant lesions and condition. ● Discuss in detail the risk factors and mechanism of transformation of premalignant lesion and conditions into malignancy. <p>Describe in detail the etiology, clinical features, diagnosis and treatment plan for the OPMDs such as</p> <p>Leukoplakia Speckled Leukoplakia Candidal Leukoplakia Erythroplakia Oral submucous fibrosis Sideropenic dysphagia Lichen planus Discoïd lupus erythematosus Tertiary syphilis</p>

			252.
60.	Oral squamous cell carcinoma	1	<p>253. Define oral squamous cell carcinoma and explain its epidemiology.</p> <p>254. Describe etiopathogenesis including tobacco, betel nut, alcohol, viral infections (HPV), and genetic factors.</p> <p>255. Discuss clinical features and common sites of occurrence.</p> <p>256. Classify OSCC based on TNM staging.</p> <p>257. Outline diagnostic approach: history, examination, adjunctive tools, biopsy, and imaging.</p> <p>258. Correlate clinical presentation with histopathological findings and discuss grading of tumour.</p> <p>259. Explain prognosis and complications (recurrence, metastasis).</p> <p>260. Discuss prevention, patient education, and early detection.</p>
Oral and Maxillofacial Surgery			
61.	Supplemental Injection Techniques	1	<p>261. Describe indications, contraindications, advantages, disadvantages, technique and complications of the following:</p> <ul style="list-style-type: none"> • Periodontal ligament injection. • Intraseptal injection. • Intraosseous injection. • Intrapulpal injection.
62.	Soft Tissue Biopsy	1	<p>262. Discuss suspicious indicators of potentially malignant and malignant lesions</p> <p>263. Describe technique and principles of soft tissue biopsy</p>
63.	Management of malignancy	1	<p>264. Enumerate malignancies of head and neck region</p> <p>265. Discuss different modalities, for treatment of squamous cell carcinoma of head and neck region</p> <p>266. Discuss the different techniques of radiotherapy used in management of oral squamous cell carcinoma</p> <p>267. Enumerate different chemotherapeutic agents in use for management of oral squamous cell carcinoma</p>

64.	Management of patients undergoing radiotherapy	1	268. Discuss oral problems of patients undergoing radiotherapy 269. Describe evaluation of dentition before radiotherapy 270. Discuss method of performing pre radiation extractions 271. Describe management of third molar in a patient of radiotherapy 272. Define ORN 273. Discuss mechanism of ORN 274. Enumerate treatment options of managing ORN
65.	Management of patients undergoing chemotherapy	1	275. Describe the oral problems of patient undergoing chemotherapy 276. Discuss extraction of teeth in patients undergoing chemotherapy
Periodontology			
66.	Chemical & Mechanical means of plaque removal	2	277. Discuss the use of manual and Powered Toothbrushes in plaque control 278. Explain the role of different constituents and active ingredients in dentifrices prescribed to the patients 279. Explain and demonstrate various Toothbrushing Methods according to the patients' clinical conditions 280. Describe indications of different Interdental Cleaning Aids. 281. Recall Chemical Plaque Biofilm and its Control using Oral Rinses and Disclosing Agents 282. Discuss the role of Patient Motivation and Education in plaque biofilm control
67.	PHASE I/ Non-Surgical Periodontal Therapy	2	283. Discuss the rationale and considerations in the of Phase1 periodontal therapy 284. Describe the sequence of Procedures carried out during Phase 1 therapy 285. Explain periodontal healing and referral protocol after phase 1 therapy 286. Compare the advantages and disadvantages of different debridement procedures
68.	Host Modulation Therapy Shift to blood	1	287. Define and explain the concept and rationale of host modulation in the management of periodontal diseases. 288. Correlate the similarities between periodontal diseases and other chronic inflammatory conditions.

			<p>289. Explain the host immune-inflammatory response and identify potential targets for host modulation.</p> <p>290. Describe and discuss the pharmacologic agents used for host modulation, including their mechanisms of action.</p> <p>291. Explain the clinical features, diagnosis, and progression of HIV-related gingival and periodontal lesions.</p> <p>292. Discuss the management and treatment modifications required for HIV-positive patients.</p>
69.	Chemotherapeutic Agents	2	<p>293. Define and explain the rationale behind the use of chemotherapeutic agents in periodontology.</p> <p>294. Describe and discuss the clinical indications of systemic antibiotics in various periodontal conditions.</p> <p>295. Outline the commonly used antibiotic regimens in periodontal therapy, including their mechanisms, dosages, and combinations.</p> <p>296. Describe and evaluate the role and application of local drug delivery systems in the management of periodontal diseases.</p> <p>297. Differentiate between systemic and local antimicrobial approaches with respect to site specificity, concentration, and side effects.</p> <p>298. Discuss the clinical evidence supporting adjunctive antimicrobial use alongside conventional mechanical therapy.</p>
General Surgery			
70.	Malignancies of Oral cavity	2	<p>299. Describe the premalignant lesions of the oral cavity.</p> <p>300. Discuss the causes, risk factors and complications of tongue cancer.</p> <p>301. Describe the clinical features and investigations for the diagnosis and staging of the disease.</p> <p>302. Describe the principles of surgical management palliative care and multidisciplinary approach.</p>
71.	Skin & sub-cutaneous lesions of the face	1	<p>303. Discuss the various premalignant and benign lesions (warts, papilloma, nevi) of the skin, their clinical presentation, diagnosis and treatment.</p>
72.	Non-healing wounds	2	<p>304. List the common skin cancers of the face (BCC, SCC, malignant melanoma).</p> <p>305. Describe their individual types, risk factors and clinical features</p> <p>306. Differentiate between SCC, BCC and Malignant melanoma.</p>

			<p>307. Describe the Staging and classification systems for SCC, BCC and Malignant melanoma.</p> <p>308. Discuss the investigations done for diagnosis and staging</p> <p>309. Describe the principles of surgical management.</p> <p>310. Discuss the role of Moh's Micrographic surgery in the surgical management of facial skin cancers.</p>
Preclinical Prosthodontics			
73.	Denture base	1	<p>311. Discuss function of denture bases in control of prosthesis movement.</p> <p>312. Discuss the methods of attaching denture bases to framework.</p> <p>313. Discuss and compare the different denture base material.</p> <p>314. Describe the methods of attaching artificial teeth to denture bases.</p>
74.	Preparation of abutment teeth	2	<p>315. Describe the sequence of abutment preparation for cast partial denture.</p> <p>316. Explain indications and techniques for abutment preparation using conservative e restorations (inlays, onlays, resin restorations).</p> <p>317. Discuss abutment preparation using full coverage surveyed crowns</p> <p>318. Describe the principles and rationale of splinting abutment teeth to distribute occlusal loads.</p> <p>319. Identify the considerations for using isolated teeth as abutments and their biomechanical limitations.</p> <p>320. Discuss management of cases with missing anterior teeth and their influence on RPD design.</p>
Lab Work			
Oral Pathology			
75.	OED/ CIS	2	<p>321. Interpret the histopathology of epithelial dysplasia & Carcinoma in Situ under microscope</p>

76.	OSCC	2	322. Interpret the histopathology of OSCC under microscope.
77.	BCC	2	323. Interpret the histopathology of basal cell carcinoma under microscope
Learning Resources			
	Oral pathology	<ul style="list-style-type: none"> • Textbook of Soams and Southam's Oral Pathology • Contemporary Oral and Maxillofacial Pathology • Oral and Maxillofacial Pathologies by Neville 	
	Oral medicine	<ul style="list-style-type: none"> • Tyldesley's Oral Medicine Textbook • Burket's Oral Medicine Diagnosis and Treatment Textbook 	
	Periodontology	<ul style="list-style-type: none"> • Newman and Caranza's Clinical Periodontology and Implantology, 14th edition • Lindh's Clinical Periodontology and Implantology Dentistry, 7th Edition 	
	General medicine	<ul style="list-style-type: none"> • Davidson's Principles and Practice of Medicine 	
	General surgery	<ul style="list-style-type: none"> • Bailey & Love's Short Practice of Surgery 	