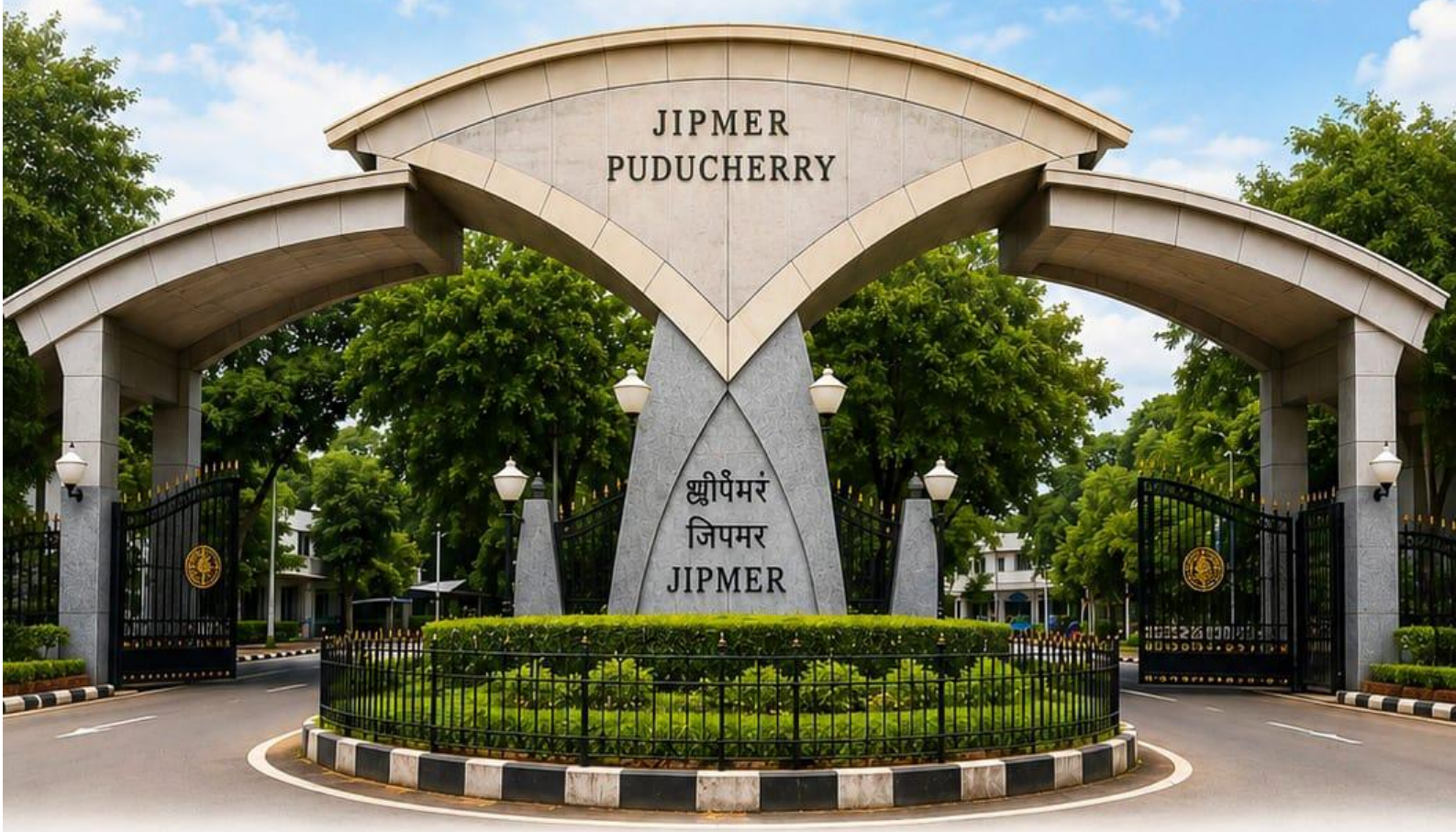
CURRICULUM

POSTGRADUATE

MDS Oral & Maxillofacial Surgery

From July 2026 session



JAWAHARLAL INSTITUTE OF POSTGRADUATE MEDICAL EDUCATION AND RESEARCH (JIPMER),
PUDUCHERRY – 605 006.

*****

This curriculum was approved at the 19th meeting of the Standing Academic Committee held on 28th January 2026 and ratified at the 22nd meeting of the Governing Body and will be applicable for students joining MDS Oral and Maxillofacial Surgery from the July 2026 session.

*****

CONTENT OF DOCUMENT

S. No.	Text	Pages
	Section 1	
1.	Goals of the course	4
2.	Terminology	5
3.	Content and curriculum	6
4.	Learning resources	7
5.	Educational strategy	9
6.	Workplace observation	10
7.	Assessment	11
8.	Model Question Papers	15
	Section 2	
1.	Annexure 1- Part A - Key-Capabilities	20
2.	Annexure 1- Part B - Core ideas in the practice of Key-capabilities / Syllabus	23
3.	Annexure 1- Part C - Peripheral posting	35
4.	Annexure 2 - Sample forms for evaluation/Feedback and Appraisal	37
5.	Annexure 3 – Feedback & Appraisal	41

GOAL OF THE COURSE

The goal of this postgraduate program in Oral and Maxillofacial Surgery is to train and shape a B.D.S. graduate into a competent dental specialist who shall,

1. Practice oral and maxillofacial surgery efficiently and effectively, backed by scientific knowledge and skills.
2. Recognize the oral and maxillofacial surgical needs of the community and carry out professional obligations with empathy and high ethical standards.
3. Evince keen interest in continuing professional education.
4. Have acquired a spirit of scientific enquiry and oriented to research methodology and evidence-based Oral and Maxillofacial Surgery.
5. Have acquired the basic skills in teaching dental and allied health professionals

TERMINOLOGY

Key-capabilities

They refer to the practices carried out by the specialists as part of their professional services. They represent the services required from them by patients, students, other medical/paramedical staff, or society in general. Thus, they refer to the specific tasks the postgraduate will be expected to do after completing the course.
For training, the tasks are broken down into units with distinct cognitive concepts unless they are predominantly procedural or attitude based.

Core ideas in the practice of Key-capabilities

They refer to the ideas that underlie the practice of the specialists. They include ideas and concepts about the structure and functioning of organs and organ systems in health and diseases, classification of diseases, equipment, tests, drugs, etc.

COURSE CONTENT

1. Key capabilities in the Oral and Maxillofacial Surgery
   (*details in Annexure 1 -Part A*)

2. Core ideas in the practice of key capabilities / Syllabus
   (details in Annexure 1 - Part B)

LEARNING RESOURCES

Suggested Books and Journals

This list of Journals/Textbooks is not an exhaustive list. The resident is advised to study relevant topics from other allied basic, medical and surgical specialty journals and textbooks as required.

Journals:

1. Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology (OOOO)
2. Journal of Craniofacial Surgery (JCFS)
3. British Journal of Oral and Maxillofacial Surgery (BJOMS)
4. Journal of Cranio-Maxillofacial Surgery (JCMFS)
5. Journal of Oral and Maxillofacial Surgery (JOMS)
6. Oral and Maxillofacial Surgery (OMS)
7. Journal of Maxillofacial and Oral surgery (JMOS)
8. International Journal of Oral and Maxillofacial Surgery (IJOMS)
9. Oral and Maxillofacial Clinics of North America
10. Atlas of Oral and Maxillofacial Surgery Clinics of North America
11. Craniomaxillofacial Trauma and Reconstruction (CMTR)
12. Journal of Plastic, Reconstructive & Aesthetic Surgery (JPRS)
13. Oral Surgery (OS)

Textbooks (*Please refer to latest editions*):

1. Oral and Maxillofacial Surgery Vol. I & Vol. II - **Daniel M Laskin**
2. Netter's Head and Neck Anatomy for Dentistry
3. Pocket Atlas of Sectional Anatomy - Head and Neck: Computed Tomography and Magnetic Resonance Imaging - Vol. 1– **Moeller**
4. Handbook of Local Anaesthesia - **Malamad**
5. Contemporary Oral and Maxillofacial Surgery- **Hupp J**
6. Dental Management of the Medically Compromised Patient - **Little and Falace**
7. Medical Emergencies in the Dental Office - **Malamad**
8. Minor Oral Surgery - **Geoffrey L. Howe**

9. Oral Surgery - **Fragiskos**Atlas of Minor Oral Surgery: Principles and Practice - **David McGowan**
10. Peterson's Principles of Oral & Maxillofacial Surgery Volume 1 & 2, 3rd Edition- **Micheal Miloro**
11. Oral and Maxillofacial Surgery: Vol 1, 2, 3- **Fonseca**
12. Dentist on the Ward: An Introduction to Oral and Maxillofacial Surgery for Postgraduate Core Trainees in Dentistry- **Andrew Sadler**
13. Oral and Maxillofacial Infections - **Topazian**
14. Oral and Maxillofacial Surgery Secrets - **Omar Abubaker**
15. Clinician's Manual of Oral and Maxillofacial Surgery - **Daniel Laskin**
16. Decision making in Oral & Maxillofacial Surgery - **Laskin and Abubaker**
17. Surgical Approaches to the Facial Skeleton- **Edward Ellis III**
18. Oral and Maxillofacial Trauma- **Fonseca**
19. Maxillofacial Injuries Volume 1 & 2 - **Rowe and Williams**
20. Principles of Internal Fixation of the Craniomaxillofacial Skeleton: Trauma and Orthognathic Surgery- **Micheal Ehrenfield**
21. Management of Temporomandibular Disorders and Occlusion - **Okeson**
22. Oral & Maxillofacial Surgery Review: A Study Guide - **Din Lam**
23. Clinical Review of Oral and Maxillofacial Surgery: A Case-based Approach- **Shahrokh Bagheri**
24. Orthognathic Surgery - 2 Volume Set: Principles and Practice 1st Edition - **Jeffrey Posnick.**
25. Management of complications in Oral and Maxillofacial Surgery- **Micheal Miloro**
26. Pediatric Oral and Maxillofacial Surgery- **Kaban**
27. Atlas of Operative Oral and Maxillofacial Surgery - **Christopher J. Haggerty**
28. Atlas of Oral and Maxillofacial Surgery - **Deepak Kademani**
29. Atlas of Temporomandibular Joint Surgery - **Peter Quinn**
30. Manual of Operative Maxillofacial Trauma Surgery - **Micheal Perry**
31. Operative Oral and Maxillofacial Surgery 3rd Edition - **Langdon**
32. Atlas of Craniomaxillofacial Osteosynthesis: Microplates, Miniplates and Screws. **Franz Haerle**
33. Cone Beam Computed Tomography: Oral and Maxillofacial Diagnosis and Applications 1st Edition - **David Sarment**
34. Craniofacial Distraction - **McCarthy**

EDUCATIONAL STRATEGY

Teaching-learning methods

- Seminars/Journal Clubs: Seminars/Journal Clubs; Interactive discussions, Case-based learning in the specialty and allied fields will be facilitated by the department faculty.
- Demonstrations and Hands-on training
- Dissertation: The residents shall submit a dissertation based on their research under the supervision of the postgraduate guide.
- Clinical training: Each trainee shall work in the clinics every day to acquire adequate professional skills and competency in managing various cases.
- Inter-disciplinary Meetings involving other dental and medical specialties
- Continuing Dental Education programs such as Conferences/Conventions/Workshops/Short courses: The trainees are encouraged to attend such programs and present at least one paper and one poster during their training.

Peripheral Posting

1. Surgical Oncology- 35 days
2. Plastic and Reconstructive Surgery-35 days
3. Neurosurgery-7 days
4. Anesthesiology- 7 days
5. Radiodiagnosis- 7 days
6. Radiation Oncology-7 days
7. Otolaryngology- 7 days
8. Ophthalmology-5 days.

Dissertation

- A research project should be undertaken and dissertation must be submitted as per Postgraduate Research Monitoring Committee (PGRMC) guidelines of JIPMER.
- Two hard copies of the dissertation, prepared from the research project, should be submitted to the Dean (Academics) JIPMER, at two and half years of the course to become eligible to appear for the final examination at the end of the course, as per the guidelines of JIPMER.
- Six monthly interim presentations of the dissertations will be done to monitor the progress of the research work and take corrective measures when faced with difficulties.
- **Please refer to Postgraduate Dissertation Regulations and Postgraduate Examination Regulations document for further details**

WORKPLACE OBSERVATION

Logbook

(Please refer Annexure 2 for sample forms)

Logbook

The logbook is the primary consolidated evidence of work during the residency and is mandatory for appearing in the final examinations.

The logbook should include the list of

1. Clinical cases handled during the course (observed/assisted/performed under supervision/performed independently)
2. Seminars presented in the department
3. Journal clubs presented in the department
4. Focused discussions
5. Case presentations
6. Ward rounds discussions
7. Conferences / Workshops / C.D.E.s attended – National/International
8. Papers presented at conferences
9. Posters presented at conferences
10. Papers published in the journal
11. Other co-scholastic activities

Workplace observation scheme

(Please refer Annexure 3 for sample forms)

The faculty in charge / HoD / Unit Head will assess the logbook periodically and provide feedback on the resident's performance every 6 months. The student also has to provide a self-assessment and challenges faced towards fulfilment of the learning outcomes.

ASSESSMENT

Marks

Exam	Marks	Description
Theory exit examination	400 marks	This is the written exam at the end of the course. Four theory examination papers as given in the curriculum document of the course.
Practical exit exam	400 marks	This is the practical examination at the end of the course. The detailed scheme is given in the curriculum document of the course.
Internal Assessment	Internal assessment Theory: 50 marks	Two exams should be conducted - one at the end of first year and the other at the end of second year. Portions for the examination and pattern of the examination must be notified to the students at least one month in advance. The pattern of the internal assessment test will be similar to one paper of the theory exit examination. Two faculty members will evaluate the paper of each candidate in a blinded manner and the average of the 2 scores will be taken as the final score for the internal assessment. If a resident misses one of the tests due to medical reasons (medical certificate from a faculty member of the treating department and duly forwarded by the HoD to the Dean (Academic)), he/she can be permitted to appear in the test that is held for the next batch 6 months later. This can be permitted only once in the course period. If a resident does not attend an internal assessment test, or if he/she fails to attend the rescheduled test due to medical reasons, the score will be considered as 0 for the test. No retests or re-evaluation will be permitted under any circumstances. The internal assessment marks should be communicated to the students within two months of conducting the exams. Internal assessment test marks will be added to the final aggregate to the tune of 100 marks (theory and practical). There is no cut off of internal assessment test scores for determining eligibility to appear in the exit examination or to decide pass/fail solely based on the internal assessment test scores. However, when a student secures less than 50%

Exam	Marks	Description
		marks in the internal assessment or when any concern is formally raised by the student with the Dean office, a review board with at least 3 faculty members should be constituted to review the student's performance with the student, recommend appropriate remedial measures, document the remedial plan, and submit a signed copy of the document to the Dean's Office. Additional periodic assessments can be held as part of formative assessment. Scores of these tests will not be considered for internal assessment and will not be considered for replacing scores of any of the internal assessment tests. Information to be provided to the Dean Office, before the final examination. 1. Dates of internal assessment examinations conducted 2. Names of faculty members involved in assessment against each date 3. Marks obtained by students in theory, practical and workplace-based observation in each exam session 4. Internal assessment marks for each student for Theory, Practical and Workplace based assessment. An average of the two theory and practical tests will be used to calculate scores for 50 and 25 marks respectively. Cumulative workplace-based assessment scores will be determined for 25 marks. 5. Copy of review documentations for periods of low performance of a student, if any, with remedial measures suggested by the departmental committee.
Internal Assessment (Practical and Workplace-based assessment)	Internal assessment Practical: 25 marks Internal assessment	For practical examinations, all members of the faculty of the department, from Assistant Professor to the senior-most faculty, shall participate in internal assessment on a rotating basis. The assessment shall be planned such that multiple faculty members are engaged for each student and different faculty members are engaged for the two assessments, wherever feasible. The pattern prescribed in the curriculum document shall be followed for practical assessments and the score shall be adjusted for 25 marks. Workplace-based assessment marks are given based on practice of the profession and affective

Exam	Marks	Description
	Workplace-based assessment: 25 marks	domain attributes in the workplace and in the learning environment. Workplace observation proforma should be provided to students at the time of joining the department. The method of workplace observation should be explained to the students at the beginning of the course.
Dissertation	100 marks	Dissertation marks will be calculated by the average of the scores provided by 2 external examiners. Approval of the dissertation with more than 50% scores awarded by the external examiners will be one of the eligibility criteria for appearing for the exit examination of the discipline.
Total	1000 marks	**Criteria for PASS:** 1. (a) A candidate will need to pass the final Theory Exit Exam and Practical Exit Exam independently. (b) A minimum of 50% marks in 'Theory Exit exam' (a minimum of 40% in each of the four papers) and 50% in 'Practical Exit exam' separately shall be mandatory 2. A candidate should also score 50% or above in the final aggregate marks (500 out of 1000) to pass in the degree course. If a student secures a pass score in theory and practical examination but fails in the aggregate score, he/she can re-appear in the exit examination of the subsequent session. There is no provision to improve internal assessment or dissertation scores.
Please refer to Postgraduate Examination Regulations document for further details		

Theory Exit Exam

The written examination shall consist of four papers, each for 100 marks, and three hours.

- **Paper I**: Applied Basic Sciences, Minor Oral Surgery, Local and General Anaesthesia
- **Paper-II**: Maxillofacial Trauma, Benign Maxillofacial Pathology, Maxillofacial Infections, Temporomandibular Joint, Salivary Glands
- **Paper III**: Orthognathic Surgery, Oral Oncology and Reconstruction, Cleft and Craniofacial Surgery, Facial Esthetic Surgery, Dental Implants

- **Paper IV**: Oral and Maxillofacial Surgery including Recent Advances

Practical Exit Exam

Clinical examination will be conducted on two consecutive days and will include

Practical / Clinical Examination: 400 marks.

1. Oral and Maxillofacial Surgery- 100 Marks.

The student is required to perform a surgical procedure under local anaesthesia/general anaesthesia. This may include removal of impacted third molar, cyst enucleation, open reduction and internal fixation of a mandible or Zygomatic complex fracture or any similar procedure where the student can demonstrate their professional skill in oral and maxillofacial surgery such as raising a flap, removing bone, application of osteosynthesis hardware, suturing the wound etc.

2. One Long Case presentation: 80 Marks
3. Two Short case presentation: 40 Marks each.
   (Cases can be actual/pretend patients, Clinical scenarios on a computer., etc)
4. Instrumentation in Oral and Maxillofacial Surgery-20 marks
5. Interpretation of diagnostic investigations relevant to Oral and Maxillofacial Surgery- 20 marks
6. Viva voce- 100 marks.

MODEL THEORY QUESTION PAPERS

M.D.S DEGREE EXAMINATIONS ORAL & MAXILLOFACIAL SURGERY

Paper I

Applied Basic Sciences, Minor Oral Surgery, Local and General Anaesthesia

Time: Three Hours Maximum Marks: 100

Answer ALL Questions Draw diagrams wherever necessary

1. What are the surgical landmarks to identify the facial nerve during maxillofacial surgery? Briefly describe an objective method to assess the recovery of an injured facial nerve. (6+4)

2. Discuss your protocol for the extraction of mandibular 1st molar in a 70-year-old patient with history of prosthetic heart valve replacement 3 years ago. (10)

3. Enumerate any four causes for loss of consciousness (LOC) in the dental chair. Discuss your management for an adult patient who has sudden LOC during a minor oral surgery. (2+8)

4. What are the causes of fever following maxillofacial surgery? Discuss in detail any one cause of post-operative fever. (3+7)

5. Discuss the management of an iatrogenic lingual displacement of an impacted Mandibular third molar. (10)

6. Describe "LEMON" in difficult Airway Assessment. (10)

7. Briefly discuss the biological adaptations that can occur with closed treatment of condylar fractures. (10)

8. Describe the histology of the mandibular condylar cartilage in a healthy adult. Briefly discuss the lubrication of the TMJ. (6+4)

9. Discuss surgical anatomy of the submandibular space. (10)

10. Discuss the clinical implications of venous communications in the maxillofacial region. (10)

M.D.S DEGREE EXAMINATIONS ORAL & MAXILLOFACIAL SURGERY

Paper II

Maxillofacial Trauma, Benign Maxillofacial Pathology, Maxillofacial Infections, Temporomandibular Joint, Salivary Glands

Time: Three Hours Maximum Marks: 100

Answer ALL Questions Draw diagrams wherever necessary

1. Classify ameloblastoma. Discuss the management of ameloblastoma of the posterior mandible. (3+7)
2. What are the indications for the open reduction of a fractured condyle? Briefly describe your surgical steps for the fixation of a fractured and medially dislocated condylar neck. (4+6)
3. Discuss parapharyngeal space infections - Anatomical boundaries, clinical features and surgical management. (4+2+4)
4. Briefly discuss the differential diagnosis of lateral neck swelling/s. (10)
5. How can TMJ ankylosis be classified based on radiographic findings? Briefly discuss Kaban's protocol for the management of TMJ ankylosis and measures to minimise the recurrence of this condition. (2+4+4)
6. Differentiate tracheostomy Vs. cricothyroidotomy – surgical landmarks. Briefly discuss the bedside care of a tracheostomized patient. (6+4)
7. Describe Wilke's classification of Internal Derangement of TMJ. Briefly describe the indications and technic for a TMJ arthrocentesis procedure. (3+7)
8. Enumerate the clinical features of zygomatic complex fractures. Discuss the internal fixation technics for this fracture pattern. (2+8)
9. Briefly discuss the investigation and management of vascular lesions of the jaws. (4+6)
10. Discuss management of submandibular sialolithiasis. (10)

M.D.S DEGREE EXAMINATIONS ORAL & MAXILLOFACIAL SURGERY

Paper III

Orthognathic Surgery, Oral Oncology and Reconstruction, Cleft and Craniofacial Surgery, Facial Esthetic Surgery, Dental Implants

Time: Three Hours Maximum Marks: 100

Answer ALL Questions Draw diagrams wherever necessary

1. Discuss sinus lift procedures in dental implant surgery. What are the post-operative instructions after this procedure? (7+3)
2. Name at least 3 incisions for neck dissections. Briefly discuss the complication of thoracic duct injury during neck dissection. (3+7)
3. Discuss on condylar Sag. (10)
4. Bone grafting in cleft alveolus. (10)
5. Describe the Lefort 1 maxillary osteotomy surgical procedure. Briefly mention the soft tissue changes associated with this orthognathic surgery. (6+4)
6. Classify bone grafts. Discuss the selection of a bone graft for a mandibular defect. (3+7)
7. Classify flaps. Discuss the use of nasolabial flaps in maxillofacial reconstruction. (3+7)
8. What are the indications for adjuvant RT in oral cancer management? Briefly describe measures to minimise the incidence of osteoradionecrosis of jaw bones (4+6)
9. Verrucous carcinoma- differential diagnosis and management. (2+8)
10. Discuss on bad splits in Bilateral Sagittal Split Osteotomy (BSSO). (10)

M.D.S DEGREE EXAMINATIONS ORAL & MAXILLOFACIAL SURGERY

Paper IV

Oral and Maxillofacial Surgery including Recent Advances

Time: Three Hours Maximum Marks: 100

Answer ALL Questions Draw diagrams wherever necessary

1. Fixation in maxillofacial trauma – advances in methods and materials. (10)
2. Enumerate the ATLS principles and discuss the use of Glasgow Coma Scale in maxillofacial trauma. (4+6)
3. Odontogenic Keratocyst - Controversies in nomenclature and current management. (10)
4. Briefly discuss the use of botulinum toxin in oral and maxillofacial surgery. (10)
5. Unilateral condylar hyperplasia- Clinical features and management (10)
6. Discuss your decision making in the management of frontal bone fractures. (10)
7. Post-operative monitoring of a radial forearm vascularised free flap. (10)
8. Describe the anatomical boundaries of the cervical nodal levels. What are the current concepts in the management of the neck in patient with oral cancer? (3+7)
9. Postoperative Nausea and Vomiting (PONV) in maxillofacial surgery-Risk factors and prevention. (10)
10. Access Osteotomies for Maxillofacial surgery - Discuss. (10)

Annexure 1 – Part A

Levels of performance: 1-knows; 2-can do with strict supervision; 3- can do with loose supervision; 4-can do independently; 5-can teach

	Key capabilities to be acquired in the program	Minimum expected performance at months					
		6	12	18	24	30	36
	PRECLINICAL SKILLS						
1	Suturing exercises	2	3	4			
2	Wiring exercises	2	3	4			
3	OPG and Lateral Cephalogram (Landmark identification & Tracing)	2	3	4			
4	Plain radiographs Landmark identification	2	3	4			
5	CT interpretation Landmark identification	1	2	3	4		
6	MRI interpretation Landmark identification		1	2	3		
7	Plate bending exercises		1	2	3	4	
8	Model Surgery for Orthognathic procedure			1	2	3	4
	MINOR OMFS SKILLS						
1	Intraoral Nerve Blocks,	2	3		4		
2	Simple Exodontia	2	3		4		
3	Suturing of simple oral lacerations	2	3		4		
4	Suture removal	3	4				
5	Arch Bar and Eyelet placement and removal	1	2	3	4		
6	Intraoral drainage of vestibular abscesses	1	2	3	4		
7	Assisting Minor Oral Surgery	1	2	3		4	
8	OMFS Emergency Services	1	2	3		4	
9	Complex Exodontia		1	2	3	4	
10	Incisional biopsies		1	2	3	4	
11	Suturing of simple facial lacerations	1	2	3		4	
12	Suturing of Complex orofacial lacerations		1	2		3	
13	Frenectomies	1	2	3		4	
14	Splinting of traumatized teeth		1	2	3	3	4
15	Closed reduction of mandibular fractures			1	2	3	4
16	Excisional biopsies			1	2	3	4
17	Dental cyst enucleation			1	2	3	4
18	Impacted mandibular 3rd molar removal (Mesioangular/Vertical)		1	1	2	3	4
19	Alveoloplasty		1	2	3	4	4

	Key capabilities to be acquired in the program	Minimum expected performance at months					
		6	12	18	24	30	36
20	Impacted mandibular 3rd molar removal (Horizontal/Distoangular)				1	2	3
21	Impacted canine removal				1	2	3
22	Zygomatic arch fracture elevation				1	2	3
23	Submandibular duct sialolith removal					1	2
24	Manual reduction of acute TMJ dislocation		1	2		3	4
25	TMJ Arthrocentesis					1	2
	WARD SKILLS						
1	Orientation to In-Patient Admission	1	2	3		4	
2	Surgical Work Up Assessment	1	2	2	3	4	
3	Placement of peripheral IV lines	1	2	3	4		
4	Placement of Nasogastric tube		1	2	3	4	
5	Placement of Foleys catheter		1	2	3	4	
	MAJOR OMFS SKILLS						
1	2nd Assistant for GA surgeries			1	2	3	4
2	Patient preparation and draping			1	2	3	4
3	1st Assistant for OMFS GA surgeries				1	2	3
4	Intraoral incisions for surgical access				1	2	3
5	ORIF of single site linear fractures of the mandible					1	2
6	Placement of extraoral incisions					1	2
7	Cyst enucleations					1	2
8	ORIF of multi-site linear fractures of the mandible					1	2
9	ORIF of uncomplicated Zygomatic Complex fractures					1	2
10	Benign tumour/lesion excision					1	2
	GENERIC						
1	Administer basic life support in health care settings and outside	1	2	3	4		
2	Planning and conducting research	1	2			3	
3	Scientific writing and publishing	1			2		3
4	Critical appraisal of a manuscript			1	2		3
5	Presentation skills in academic activities (Case presentation, Seminars, JC, conferences)		1	2			3
6	Continuing professional development			1	1	2	3

Annexure 1 - Part B

SYLLABUS

1.1. APPLIED BASIC SCIENCES

- Applied Anatomy,
- Physiology,
- Biochemistry,
- General and Oral Pathology and
- Microbiology and Pharmacology

1.1.1 APPLIED ANATOMY:

- Surgical anatomy of the scalp, temple and face
- Anatomy of the triangles of neck and deep structures of the neck
- Cranial and facial bones and surrounding soft tissues with applied aspects in maxillofacial injuries
- Muscles of head and neck
- Arterial supply, venous drainage and lymphatics of head and neck
- Congenital abnormalities of the head and neck
- Surgical anatomy of the cranial nerves
- Anatomy of the tongue and its applied aspects
- Surgical anatomy of the temporal and infratemporal regions
- Anatomy and its applied aspects of salivary glands, pharynx,thyroid and parathyroid gland, larynx, trachea oesophagus
- Tooth eruption, morphology, and occlusion.
- Surgical anatomy of the nose.
- The structure and function of the brain including surgical anatomy of intra cranial venous sinuses.
- Autonomous nervous system of head and neck
- Functional anatomy of mastication, deglutition, speech, respiration and circulation
- Development of face, paranasal sinuses and associated structures and their anomalies
- TMJ: surgical anatomy and function

1.1.2 APPLIED PHYSIOLOGY:

Nervous system

- Physiology of nerve conduction, pain pathway, sympathetic and parasympathetic nervous system, hypothalamus and mechanism of controlling body temperature.

Blood

- Composition
- Capillary and lymphatic circulation.
- Haemostasis, various blood dyscrasias and management of patients with the same

- Haemorrhage and its control
- Blood grouping, transfusing procedures.

Digestive system

- Saliva - composition and functions of saliva
- Mastication deglutition, digestion, assimilation
- Urine formation, normal and abnormal constituents

Respiration

- Control of ventilation, anoxia, asphyxia, artificial respiration
- Hypoxia – types and management

Cardiovascular System

- Cardiac cycle
- Shock
- Heart sounds
- Blood pressure
- Hypertension

Endocrinology

- General endocrinal activity and disorder relating to thyroid gland,
- Parathyroid gland, adrenal gland, pituitary gland, pancreas and gonads
- Metabolism of calcium

Nutrition

- General principles of a balanced diet, effect of dietary deficiency, protein energy malnutrition, Kwashiorkor, Marasmus.

1.1.3 APPLIED BIOCHEMISTRY:

- General principles governing the various biological activities of the body, such as osmotic pressure, electrolytes, dissociation, oxidation, reduction etc.
- Fluid and Electrolytic balance in maintaining haemostasis and significance in minor and major surgical procedures.
- General composition of the body Intermediary metabolism
- Carbohydrates, proteins, lipids, and their metabolism
- Nucleoproteins, nucleic acid and nucleotides and their metabolism Enzymes, vitamins and minerals
- Hormones
- Body and other fluids; Metabolism of inorganic elements; Detoxification in the body; Antimetabolites.

1.1.4. APPPLIED PATHOLOGY

Inflammation

- Repair and regeneration, necrosis and gangrene
- Role of component system in acute inflammation,
- Role of arachidonic acid and its metabolites in acute inflammation
- Growth factors in acute inflammation
- Role of molecular events in cell growth and intercellular signaling cell surface receptors
- Role of NSAIDs in inflammation,
- Cellular changes in radiation injury and its manifestation

Haemostasis

- Role of endothelium in thrombogenesis,
- Arterial and venous thrombi
- Disseminated Intravascular coagulation

Shock:

- Pathogenesis of haemorrhagic, neurogenic, septic, cardiogenic shock
- Circulatory disturbances, ischemia, hyperaemia, venous congestion, oedema, infarction

Chromosomal abnormalities:

- Marfans Syndrome, Ehler's Danlos Syndrome, Fragile X- Syndrome

Hypersensitivity:

- Anaphylaxis, type 2 hypersensitivity, type 3 hypersensitivity and cell mediated reaction and its clinical importance, systemic lupus erythematosus.
- Infection and infective granulomas.

Neoplasia:

- Classification of tumors.
- Carcinogenesis and carcinogen- chemical, viral and microbial
- Grading and staging of cancers, tumor Angiogenesis, Paraneoplastic syndrome, spread of tumors
- Characteristics of benign and malignant tumors

Others:

- Sex linked agammaglobulinemia.
- AIDS
- Management of immunodeficiency patients requiring surgical procedures
- De George Syndrome
- Ghons complex, post primary pulmonary tuberculosis – pathology and pathogenesis.

1.1.5 ORAL PATHOLOGY

- Developmental disturbances of oral and Para oral structures
- Regressive changes of teeth.
- Bacterial, viral and mycotic infections of oral cavity
- Dental caries, diseases of pulp and periapical tissues
- Physical and chemical injuries of the oral cavity
- Oral manifestations of metabolic and endocrinal disturbances
- Diseases of jawbones and TMJ
- Diseases of blood and blood forming organs in relation to oral cavity
- Cysts of the oral cavity
- Salivary gland diseases
- Role of laboratory investigations in oral surgery

1.1.6 APPLIED MICROBIOLOGY

- Immunity
- Knowledge of organisms commonly associated with disease of oral cavity.
- Morphology cultural characteristics of strepto, staphylo, pneumo, gono, meningo, clostridium group of organisms, spirochetes, organisms of TB, leprosy, diphtheria, actinomycosis and moniliasis
- Hepatitis B and its prophylaxis
- Culture and sensitivity test
- Laboratory determinations
- Blood groups, blood matching, RBC and WBC count
- Bleeding and clotting time etc, smears and cultures
- Urine analysis and cultures

1.1.7 MEDICAL STATISTICS

- In-house theory and practical sessions on epidemiology, biostatistics, and research methodology

- The goal of a formal study of medical statistics would be to train the candidate to intelligently select and peruse academic papers; write his/her own paper(s); conceptualize and develop a valid study design; and learn to perform scientifically valid and ethical research.

1.1.8. APPLIED PHARMACOLOGY AND THERAPEUTICS

- Definition of terminologies used
- Dosage and mode of administration of drugs.
- Action and fate of drugs in the body
- Drug addiction, tolerance and hypersensitivity reactions.
- Drugs acting on the CNS
- General and local anaesthetics, hypnotics, analeptics, and tranquilizers.
- Chemo therapeutics and antibiotics
- Analgesics and antipyretics
- Antitubercular and antisyphilitic drugs.
- Antiseptics, sialagogues and anti-sialagogues
- Haematinics
- Antidiabetics
- Vitamins A, B-complex, C, D, E,

1.2. ORAL AND MAXILLOFACIAL SURGERY

1.2.1 MINOR ORAL SURGERY:

- Principles of Surgery:
    - Developing A Surgical Diagnosis,
    - Necessities for Surgery,
    - Aseptic Technique,
    - Incisions, Flap Design Tissue Handling,
    - Haemostasis,
    - Dead Space Management,
    - Decontamination and Debridement,
    - Suturing,
    - Oedema Control,
    - Patient General Health And Nutrition.

- Medical Emergencies:
    - Prevention and Management of Altered Consciousness (Syncope, Orthostatic Hypotension, Seizures, Diabetes Mellitus, Adrenal Insufficiency),
    - Hypersensitivity Reactions,
    - Chest Discomfort and Respiratory Difficulty.

- Examination and Diagnosis:
    - Clinical History, Physical and Radiographic examination
    - Clinical And Laboratory Diagnosis,
    - Oral Manifestations Of Systemic Diseases,
    - Implications Of Systemic Diseases In Surgical Patients.

- Exodontia:
    - Principles of Extraction,
    - Indications and Contraindications,
    - Types of Extraction, Complications And Their Management,
    - Principles Of Elevators And Elevators Used In Oral Surgery.

- Impaction:
    - Surgical Anatomy,
    - Classification,
    - Indications and Contraindications,
    - Diagnosis, Procedures, Complications and Their Management.

- Surgical Aids to Eruption Of Teeth:
- Surgical Exposure Of Unerupted Teeth,
- Surgical Repositioning Of Partially Erupted Teeth.
- Transplantation of Teeth

1.2.1.1 **Surgical Endodontics:** Indications and Contraindications, Diagnosis, Procedures of Periradicular Surgery

1.2.1.2 **Preprosthetic Surgery:** Requirements, Types (Alveoloplasty, Tuberosity Reduction, Mylohyoid Ridge Reduction, Genial Reduction, Removal of Exostosis, Vestibuloplasty)

1.2.1.3 **Procedures to Improve Alveolar Soft Tissues**: Hypermobile Tissues-Operative / Sclerosing Method, Epulis Fissuratum, Frenectomy and Frenotomy

1.2.1.4 **Infection of Head and Neck:** Odontogenic and Non-Odontogenic Infections, Factors Affecting Spread Of Infection, Diagnosis and Differential Diagnosis, Management of Facial Space Infections, Ludwig

Angina, Cavernous Sinus Thrombosis

1.2.1.5 **Chronic Infections of the Jaws:** Osteomyelitis (Types, Aetiology, Pathogenesis, Management) Osteoradionecrosis

1.2.1.6 **Maxillary Sinus:** Maxillary Sinusitis – Types, Pathology, Treatment, Closure of Oro – Antral Fistula, Caldwell- Luc Operation

1.2.1.7 **Cysts of The Orofacial Region:** Classification, Diagnosis, Management Of OKC, Dentigerous, Radicular, Non-Odontogenic, Ranula

1.2.1.8 **Neurological Disorders of the Maxillofacial Region:** Diagnosis and Management of Trigeminal Neuralgia, MPDS, Bell's Palsy, Frey's Syndrome, Nerve Injuries.

1.2.1.9 **Implantology**: Definition, Classification, Indications and Contraindications, Advantages and Disadvantages, Surgical Procedure.

1.2.1.10 **Anaesthesia**

Local Anaesthesia:

Classification of Local Anaesthetic Drugs, Mode of Action, Indications And Contra Indications, Advantages and Disadvantages, Techniques - Complications and Their Management.

General Anaesthesia:

Classification, Stages of GA, Mechanism of Action, Indications, And Contra Indications, Advantages and Disadvantages, Post Anaesthetic Complications And Emergencies, Anaesthetic For Dental Procedures In Children, Pre Medication, Conscious Sedation, Legal Aspects For GA

1.2.2. **TRAUMA**

1.2.2.1. Surgical Anatomy of Head and Neck.

1.2.2.2. Aetiology of Injury.

1.2.2.3. Basic Principles of Treatment.

1.2.2.4. Primary Care: Resuscitation, Establishment of Airway, Management of Haemorrhage, Management of Head Injuries and Admission to Hospital.

1.2.2.5. **Diagnosis:** Clinical, Radiological

1.2.2.6. **Soft Tissue Injury of Face and Scalp:** Classification and Management Of Soft Tissue Wounds, Injuries to Structure Requiring Special Treatment.

1.2.2.7. Dento Alveolar Fractures: Examination and Diagnosis, Classification, Treatment, Prevention.

1.2.2.8. Mandibular Fractures: Classification, Examination and Diagnosis, General Principles of Treatment, Complications and Their Management

1.2.2.9. Fracture of Zygomatic Complex: Classification, Examination and Diagnosis, General Principles of Treatment, Complications and Their Management.

1.2.2.10. Orbital Fractures: Blow Out Fractur

1.2.2.11. Nasal Fractures

1.2.2.12. Fractures of Middle Third of The Facial Skeleton: Emergency care, Fracture of Maxilla, and Treatment of Le Fort I, II, III Fractures of Naso Orbito Ethmoidal Region.

1.2.2.13. Ophthalmic Injuries: Minor Injuries, Non-Perforating Injuries, Perforating Injuries, Retro Bulbar Hemorrhage, And Traumatic Optic Neuropathy.

1.2.2.14. Traumatic Injuries to Frontal Sinus: Diagnosis, Classification, Treatment

1.2.2.15. Maxillofacial Injuries in Geriatric and Pediatric Patients.

1.2.2.16. Gun Shot Wounds and War Injuries

1.2.2.17. Osseointegration in Maxillofacial Reconstruction

1.2.2.18. Metabolic Response to Trauma: Neuro Endocrine Responses, Inflammatory Mediators, Clinical Implications

1.2.2.19. Healing of Traumatic Injuries: Soft Tissues, Bone, Cartilage, Response of Peripheral Nerve to Injury

1.2.2.20. Nutritional Consideration Following Trauma.

1.2.2.21. Tracheostomy: Indications and Contraindications, Procedure, Complications and Their Management**.**

1.2.3. MAXILLOFACIAL SURGERY

Salivary gland

1.2.3.1 Sialography

1.2.3.2 Salivary fistula and management

1.2.3.3 Diseases of salivary gland – developmental disturbances, cysts, inflammation and sialolithiasis.

1.2.3.4 Mucocele and Ranula

1.2.3.5 Tumors of salivary gland and their management

1.2.3.6 Staging of salivary gland tumours

1.2.3.7 Parotidectomy

Temporomandibular Joint

1.2.3.8. Aetiology, history signs, symptoms, examination and diagnosis of temporomandibular joint disorders

1.2.3.9. Ankylosis and management of the same with different treatment modalities

1.2.3.10. MPDS and management

1.2.3.11. Condylectomy – different procedures

1.2.3.12. Various approaches to TMJ

1.2.3.13. Recurrent dislocations – Aetiology and Management

Oncology

1.2.3.14. Biopsy
1.2.3.15. Management of pre-malignant tumours of head and neck region
1.2.3.16. Benign and Malignant tumours of Head and Neck region
1.2.3.17. Staging of oral cancer and tumour markers
1.2.3.18. Management of oral cancer
1.2.3.19. Radical Neck dissection
1.2.3.20. Modes of spread of tumours
1.2.3.21. Diagnosis and management of tumours of nasal, paranasal, neck, tongue, cheek, maxilla and mandible
1.2.3.22. Radiation therapy in maxillofacial regions
1.2.3.23. Lateral neck swelling.

Orthognathic surgery

1.2.3.24. Diagnosis and treatment planning
1.2.3.25. Cephalometric analysis
1.2.3.26. Model surgery
1.2.3.27. Maxillary and mandibular repositioning procedures
1.2.3.28. Segmental osteotomies
1.2.3.29. Management of apertognathia, Gummy smile, Prognathic Jaw, Facial Asymmetery
1.2.3.30. Genioplasty
1.2.3.31. Distraction osteogenesis

Cysts and tumour of orofacial region

1.2.3.32. Odontogenic and non-Odontogenic tumours and their management
1.2.3.33. Giant Cell lesions of jawbone
1.2.3.34. Fibro osseous lesions of jawbone
1.2.3.35. Cysts of jaw

Laser surgery

1.2.3.36. The application of laser technology in surgical treatment of lesions

Cryosurgery

1.2.3.37. Principles, applications of cryosurgery in surgical management

Cleft lip and palate surgery

1.2.3.38. Detailed knowledge of the development of the face, head and neck: Diagnosis

and treatment planning

1.2.3.39. Current concepts in the management of cleft lip and palate deformity

1.2.3.40. Knowledge of Naso endoscopy and other diagnostic techniques in the evaluation of speech and hearing

1.2.3.41. Concept of multidisciplinary team management

Aesthetic facial surgery

1.2.3.42. Detailed knowledge of the structures of the face and neck including skin and underlying soft tissue

1.2.3.43. Diagnosis and treatment planning of deformities and conditions affecting facial skin

1.2.3.44. Underlying facial muscles, bone, Eyelids, external ear

1.2.3.45. Surgical management of post acne scarring, facelift, blepharoplasty, otoplasty, facial bone recontouring, etc

Craniofacial surgery

1.2.3.46. Basic knowledge of developmental anomalies of the face, head and neck

1.2.3.47. Basic concepts in the diagnosis and planning of various head and neck anomalies including facial clefts, craniosynostosis, syndromes, etc

1.2.3.48. Current concept in the management of Craniofacial anomalies

Surgical Infections –

1.2.3.49. Asepsis and antisepsis, Microbiological principles, Rational use of antibiotics, special infections like Synergistic Gangrene and Diabetic foot infection, Hepatitis and HIV infection and cross infection.

1.2.3.50. Reconstructive oral and maxillofacial surgery – hard tissue and soft tissue reconstruction

1.2.3.51. Tissue grafting – Understanding of the biological mechanisms involved in autogenous and heterogeneous tissue grafting.

1.2.3.52. Distraction osteogenesis in maxillofacial region Maxillofacial radiology / Radiodiagnosis / Other diagnostic methods and imaging techniques

1.3. ALLIED SPECIALTIES

1.3.1. General medicine: General assessment of the patient including children with special emphasis on cardiovascular diseases, endocrinal, metabolic respiratory and renal diseases, Blood dyscrasias

1.3.2. General surgery: Principles of general surgery, exposure to common general surgical procedures, wound care.

1.3.3. Neurosurgery: Evaluation of a patient with head injury, knowledge & exposure of various neurosurgical procedures

1.3.4. ENT: Examination of ear, nose, throat, exposure to ENT surgical procedures,

1.3.5. Ophthalmology: ophthalmic examination and evaluation, exposure to ophthalmic surgical procedures.

1.3.6. Orthopaedic: basic principles of orthopaedic surgery, bone diseases and trauma as relevant to Maxillofacial surgery, interpretation of radiographs, CT, MRI and ultrasound

1.3.7. Anaesthesia: Evaluation of patients for GA technique and management of emergencies, various IV sedation techniques

1.3.8. Critical Care: evaluation of critically ill patients, prioritization of treatment, principles of management

1.3.9. Surgical oncology: Evaluation, work up and management of neoplasms of the jaws, mouth and associated structures of face and neck

1.3.10. Casualty and Emergency: triage and work-up, supportive management, critical decision- making, emergency interventions, medicolegal documentation

Annexure 1 (Part C)

Peripheral Posting- Learning outcomes

Surgical Oncology- 35 days

- Gain practical experience in the initial evaluation, investigations of head and neck malignancies with special emphasis on oral cancer.
- Gain practical experience in the interdisciplinary management of oral cancer with special emphasis on the surgical and reconstructive options for curative and palliative care.

Plastic and Reconstructive Surgery- 35 days

- Gain practical experience in the initial evaluation, investigations of head and neck defects.
- Gain practical experience on the reconstructive options for head and neck defects.
- Gain practical experience on the follow up care of patients undergoing head and neck reconstructive surgery.

Neurosurgery-7 days

- Gain practical experience on the initial management of polytrauma patient with associated maxillofacial fractures and head injuries.

Anesthesiology- 7 days

- Gain practical experience on the basic airway skills, oral intubation, monitoring of ventilator patients.

Radiodiagnosis- 7 days

- Gain practical experience on the basic CT/MRI landmarks and interpretation of common maxillofacial conditions.

Radiation Oncology- 7 days

- Gain practical experience on the radiation protocols for head and neck cancer and management of complications.

Otolaryngology-7 days

- Gain practical experience on the management of nasal bleeding, endoscopic procedures, tracheostomy, nasogastric feeding

Ophthalmology-5 days

- Gain practical experience on the assessment of visual acuity after maxillofacial trauma, oculoplasty procedures

Annexure 2

EVALUATION OF JOURNAL CLUB PRESENTATIONS.

Name of the Resident:

Name of the Faculty/SR:

Date:

Poor - 0

Below Average - 1

Average - 2

Good - 3

Very Good - 4

	Items for observation during the presentation	**0**	**1**	**2**	**3**	**4**
1	Article chosen was					
2	The extent of understanding of the scope and objectives of the paper by the candidate					
3	Whether cross-references have been consulted					
4	Whether other relevant publications consulted					
5	Ability to discuss the paper					
6	Ability to respond to questions on the paper/subject					
7	Audio-Visual aids used					
8	Clarity of presentation					
9	Time Scheduling					
10	Any other observation					
	Total Score					

EVALUATION OF SEMINAR PRESENTATIONS.

Name of the Resident:

Name of the Faculty/SR

Title:

Date:

Poor - 0

Below Average - 1

Average - 2

Good - 3

Very Good - 4

No	Items for observation during the presentation	0	1	2	3	4
1	Completeness of Preparation					
2	Whether relevant publications have been consulted					
3	Understanding of Subject					
4	Ability to answer the questions					
5	Clarity of Presentation					
6	Time Scheduling					
7	Appropriate Visual aids use of Audio- visual aids					
8	Any other observation					
	Total Score					

EVALUATION OF TEACHING SKILL

Name of the Resident:

Name of the faculty/SR:

Date:

No.	**Items for observation during the presentation**	Strong Point	Weak Point
1.	Communication of the purpose of the talk		
2.	Evokes audience interest in the subject		
3.	The introduction		
4.	The sequence of ideas		
5.	The use of practical examples and illustrations		
	Speaking style (enjoyable, monotonous, etc., specify)		
7.	Attempts audience participation		
8.	Summary of the main points at the end		
9.	Ask questions		
10.	Answer questions asked by the audience		
11	Rapport of the speaker with his audience		
12.	Effectiveness of the talk		
13.	Uses A.V. aids appropriately		

Annexure 3

FEEDBACK AND APPRAISAL

Name of the Resident:

Name of the faculty:

Date*:*

	Parameters Assessed	**Unsatisfactory**	**Acceptable**	**Good**	**Excellent**
		<25%	25-50%	50-75%	>75%
1	Attendance and Punctuality				
2	Behaviour towards patients				
3	Behaviour towards colleagues				
4	Communication skills				
5	Theoretical Knowledge				
6	Attitude towards unanswered questions asked by faculty/SRs				
7	Clinical skills				
8	Clinical judgement & decision making				
9	Ability to work independently				
10	Ability to perform tasks within the deadline				
11	Willingness to take additional responsibilities				
12	Attitude towards criticism				
13	Leadership qualities				
14	Any other comments/suggestions				