



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY

— Deemed to be University —

MASTER OF DENTAL SURGERY (M.D.S.) DEGREE

REGULATIONS -2017

(For students admitted from 2017 - 2018 onwards)

PROSTHODONTICS AND CROWN & BRIDGE

FACULTY OF MEDICINE AND HEALTH SCIENCES

SRM Institute of Science and Technology

(Formerly Known as SRM UNIVERSITY)

Kattankulathur – 603 203

REGULATIONS -2017
MASTER OF DENTAL SURGERY (M.D.S.)
PROSTHODONTICS AND CROWN & BRIDGE

1. SHORT TITLE AND COMMENCEMENT:

These regulations shall be called '**MASTER OF DENTAL SURGERY REGULATIONS 2017**' under SRM Institute of Science and Technology, Kattankulathur, Kancheepuram District, Tamilnadu. The regulations are in compliance to the Dental Council of India Master of Dental Surgery course regulations 2017 released in the Gazette of India dated 05.09.2017. The same has been placed and approved by the 36th Academic council meeting of SRM Institute of Science and Technology held on 25.10.2017.

The regulations shall come into force for the candidates admitted from the academic year 2017-2018 onwards.

DEFINITIONS:

PROSTHODONTICS AND CROWN & BRIDGE

Prosthodontics and Crown & Bridge and Oral Implantology i.e. that branch of dental art and science pertaining to the restoration and maintenance of oral function, health, comfort and appearance by the replacement of missing or lost natural teeth and associated tissues either by fixed or removable artificial substitutes.

NEET:

NEET means the National Eligibility–cum–Entrance Test conducted by the National Board of Examination for admission to post-graduate courses

2. GOALS & OBJECTIVES:

2. A. GOALS:

The goals of postgraduate training in various specialties are to train B.D.S. graduate who will, after successful completion of the course:

- ✓ Practice respective specialty efficiently and effectively, backed by scientific knowledge and skill.
- ✓ Exercise empathy and a caring attitude and maintain high ethical standards.
- ✓ Continue to evince keen interest in continuing professional education in the specialty and allied specialties irrespective of whether in teaching or practice.
- ✓ Willing to share the knowledge and skills with any learner, junior or a colleague.
- ✓ Develop the faculty for critical analysis and evaluation of various concepts and views, to adopt the most rational approach.

2. B. OBJECTIVES:

The objective is to train a candidate so as to ensure higher competence in both general and special area of interest and prepare him for a career in teaching, research and speciality practice. A candidate must achieve a high degree of clinical proficiency in the subject matter and develop competence in research and its methodology as related to the field concerned.

The above objectives are to be achieved by the time the candidate completes the course. The objectives may be considered as under -

1. Knowledge (Cognitive domain)
2. Skills (Psycho motor domain)
3. Human values, ethical practice and communication abilities

KNOWLEDGE:

- ✓ Demonstrate understanding of basic sciences relevant to speciality.
- ✓ Describe aetiology, patho-physiology, principles of diagnosis and management of common problems within the speciality in adults and children.
- ✓ Identify social, economic, environmental and emotional determinants in a given case and take them into account for planning treatment.
- ✓ Recognise conditions that may be outside the area of speciality/competence and to refer them to an appropriate specialist.
- ✓ Update knowledge by selfstudy and by attending courses, conferences, and seminars relevant to speciality.
- ✓ Undertake audit, use information technology and carryout both research and clinical with the aim of publishing or presenting the work at various scientific gatherings.

The students undergoing postgraduate courses shall be exposed to the following:-

- Basics of statistics to understand and critically evaluate published research papers.
- Few lectures on other type of exposure to human behavior studies.
- Basic understanding of pharmaco-economics.
- Introduction to the non-linear mathematics.

SKILLS:

- ✓ Take a proper clinical history, examine the patient, perform essential diagnostic procedures and order relevant tests and interpret them to come to a reason diagnosis about the condition.
- ✓ Acquire adequate skills and competence in performing various procedure required in the speciality.

HUMAN VALUES, ETHICAL PRACTICE AND COMMUNICATION ABILITIES:

- ✓ Adopt ethical principles in all aspects of practice.
- ✓ Professional honesty and integrity are to be fostered.
- ✓ Patient care is to be delivered irrespective of social status, caste, creed or religion of the patient.
- ✓ Develop communication skills, in particular and skill to explain various option available in management and to obtain a true informed consent from the patient
- ✓ Provide leadership and get the best out of his team in a congenial working atmosphere.
- ✓ Apply high moral and ethical standards while carrying out human or animal research.
- ✓ Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed.
- ✓ Respect patient's rights and privileges including patient's right to information and right to seek a second opinion.

3. ELIGIBILITY FOR SELECTION CRITERIA OF STUDENTS:

A candidate for admission to the Master of Dental Surgery course, must possess a recognized degree of Bachelor of Dental Surgery awarded by a university or institute in India and registered with the State Dental Council and has obtained provisional or permanent registration and has undergone compulsory rotatory internship of a year in an approved/recognized dental college:

Provided that in the case of a foreign national, the following procedure shall be followed:—

The Council may, on payment of the prescribed fee for registration, grant temporary registration for the duration of the post-graduate training restricted to the dental college/institution to which he or she is admitted for the time being exclusively for post-graduate studies.

Provided further that temporary registration to such foreign national shall be subject to the condition that such person is duly registered as medical practitioner in his/her own country from which he/she has obtained his/her basics dental qualification and that his/her degree is recognized by the corresponding state dental council or concerned authority.

3.A. SELECTION OF CANDIDATE FOR POST-GRADUATE COURSES:

There shall be a uniform NEET for admission to the post-graduate dental courses in each academic year conducted in the manner, as prescribed by the National

Board of Examination or any other authority appointed by the Central Government in this behalf. The overall superintendence, direction and control of the NEET shall vest with the Council.

3.B. QUALIFYING CRITERIA FOR ADMISSION TO POST-GRADUATE COURSES :

- (a) The candidate has to secure the following category-wise minimum percentile in NEET for admission to post-graduate courses held in a particular academic year. Provided that the percentile shall be determined on the basis of highest marks secured in the All-India common merit list in NEET for post-graduate courses:

General	50th Percentile
Person with locomotor disability of lower limbs	45 th percentile
Scheduled castes, Scheduled tribes, other backward classes	40 th percentile

Provided further, that when sufficient number of candidates in the respective categories fail to secure minimum marks as prescribed in NEET held for any academic year for admission to post-graduate courses, the Central Government in consultation with the Council may, at its discretion lower the minimum marks required for admission to post-graduate courses for candidates belonging to respective categories and marks so lowered by the Central Government shall be applicable for the said academic year only.

- (b) The reservation of seats in dental college/institutions for respective categories shall be as per applicable laws prevailing in States/Union territories. An all India merit list as well as State-wise merit list of the eligible candidates shall be prepared on the basis of the marks obtained in NEET Test and candidates shall be admitted to post-graduate courses from the said merit list only.
- (c) A candidate who has failed to secure the minimum percentile as prescribed in these regulations, shall not be admitted to any post-graduate courses in any academic year.

3.C. COMMON COUNSELING:

(1) There shall be a common counseling for admission to all post-graduate specialties (MDS) on the basis of merit list of the NEET to be conducted by the Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India.

3.D. REQUIRED DOCUMENTS:

No candidate shall be admitted to any Postgraduate MDS course unless the candidate has obtained and produced eligibility certificate issued by University. The candidate has to make an application to the University with the following documents along with the prescribed fee:

- a. BDS pass / degree certificate issued by the University.
- b. Marks cards of all the university examinations passed (I to IV BDS year course).
- c. Attempt Certificate issued by the Principal.
- d. Certificate regarding the recognition of the Dental College by the Dental Council of India.
- e. Completion of paid rotatory internship certificate from a recognized college.
- f. Registration by any State Dental Council and
- g. Proof of SC/ ST or Category I, as the case may be.

Candidates should obtain the Eligibility Certificate before the last date for admission as notified by the University.

A candidate who has been admitted to postgraduate course should register his / her name in the University within a month of admission after paying the registration fee.

4. COURSE OVERVIEW:

4.A. DURATION OF THE COURSE:

The Course shall be of three years duration. All the candidates for the degree of MDS are required to pursue the prescribed course for at least three academic years course as full-time candidates under the direction of the Head of the Department, who has to be a recognized postgraduate teacher in that specialty.

4.B. MAXIMUM DURATION OF THE COURSE:

The time period required for passing out of the MDS course shall be a maximum of 6 years from the date of admission in said course.

5. COMMENCEMENT OF ACADEMIC SESSION:

The classes for the course shall commence from 1st week of May and the cut –off date for admission will be 31st May.

6. MIGRATION:

Under no circumstances, the migration or the transfer of students undergoing post-graduate degree shall not be permitted by SRM Institute Of Science And Technology

or the authority. No interchange of the speciality in the same institution or in any other institution shall be permitted after the date of commencement of session

7. COMMENCEMENT OF EXAMINATION:

Written examination shall consist of Basic Science -Part 1, which will be conducted at the end of 1st year of MDS course. Part 2 examination shall be conducted during the 1st week of June after completion of 3 years/ 36 months. Examinations for the repeaters /arrears shall be conducted in the month of December every academic year.

The University shall conduct not more than two examinations in a year, for any subject, with an interval of not less than 4 and not more than 6 months between the two examinations.

8. STRUCTURE OF PROGRAM:

M.D.S - Prosthodontics and Crown and Bridge		
Subject Code		Subject Title
Part - I		
17MDS211	Part - I	Applied Basic Sciences: Applied Anatomy, Embryology, Growth and Development Genetics, Immunology, Anthropology, Physiology, Nutrition and Biochemistry, Pathology, and Microbiology, Virology, Applied Pharmacology, Research Methodology and bio statistics,. Applied Dental anatomy and histology, Oral Pathology and Oral Microbiology, Adult and Geriatric psychology. Applied Dental Materials.
Part – II		
17MDS221	Paper - 1	Removable Prosthodontics and Implant supported Prosthesis(Implantology), Geriatric Dentistry Cranio facial Prosthodontics.
17MDS222	Paper - 2	Fixed Prosthodontics, occlusion, TMJ and Esthetics.
17MDS223	Paper - 3	Descriptive and Analysing type question
17MDS224	Paper - 4	Practical and Clinical
17MDS225	Paper - 5	Viva - Voce and Pedagogy

9. ATTENDANCE , PROGRESS AND CONDUCT:

A candidate pursuing degree/diploma course should work in the concerned department of the institution for the full period as a full time student. No candidate

is permitted to run a clinic/ work in a clinic / laboratory /nursing home while studying post graduate course.

No candidate shall join any other course of study or appear for any other examination conducted by this university or any other university in India or abroad during the period of registration. Each year shall be taken as a unit for the purpose of calculating attendance. Every candidate shall have not less than 80 percent of attendance in each year of the course. However, candidates should not be continuously absent as the course is a full time one.

Every candidate shall attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, case presentation, clinics and lectures during each year as prescribed by the department and not absent himself /herself from work without valid reasons.

CONDONATION:

There is no condonation for MDS courses

10. MONITORING PROGRESS OF STUDIES:

10.1. WORK DIARY / LOG BOOK:

- ✓ Every Post Graduate candidate shall maintain a record of skills [Log Book] he has acquired during the three years training period, certified by the various Heads of Departments he has undergone training.
- ✓ The candidate should record his / her participation in the training program conducted by the department such as journal reviews, seminars, etc. in the Log book.
- ✓ Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.
- ✓ The Head of the Department shall scrutinize the Log Book every 3 months.
- ✓ At the end of the course, the candidate should summarize the contents and the Log Book certified by the Head of the Department and Head of the Institution.
- ✓ The Log Book should be submitted at the time of University practical / Clinical examination for the scrutiny of the board of Examiners.

10.2. PERIODIC TESTS:

In case of degree courses of three years duration, the concerned departments may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the

final examination. The tests may include written papers, practical/clinical and viva voce. Records and marks obtained in such tests will be maintained by the Head of the Department and sent to the University, when called for.

10.3. RECORDS:

Records and marks obtained in tests will be maintained by the Head of the Department and will be made available to the University when called for.

11. DISSERTATION:

The trainees shall prepare a dissertation based on the clinical or experimental work or any other study conducted by them under the supervision of the guide.

11.1. DISSERTATION:

The dissertation is aimed to train a postgraduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, comparison of results and drawing conclusions.

Every candidate shall submit to the Registrar of the University in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within six months from the date of commencement of the course on or before the dates notified by the University. The synopsis shall be sent through the proper channel.

Such synopsis will be reviewed and the dissertation topic will be registered by the University. No change in the dissertation topic or guide shall be made without prior approval of the University.

The dissertation should be written under the following headings:

- i. Introduction
- ii. Aims or Objectives of study
- iii. Review of Literature
- iv. Material and Methods
- v. Results
- vi. Discussion
- vii. Conclusion
- viii. Summary

The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27"

x 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.

The completed dissertation should be submitted six months before the final examination as per calendar of events.

The dissertation shall be valued by examiners appointed by the University. Approval of dissertation work is an essential precondition for a candidate to appear in the University examination.

Guide: The academic qualification and teaching experience required for recognition by this University as a guide for dissertation work is as laid down by Dental Council of India.

Co-guide: A co-guide may be included provided the work requires substantial contribution from a sister department or from another institution recognised for teaching/training by the Dental Council of India. The co-guide shall be a recognised postgraduate teacher of the University.

Change of guide: In the event of a registered guide leaving the college for any reason or in the event of death of guide, guide may be changed with prior permission from the university.

12. EXAMINATION:

ELIGIBILITY: The following requirements shall be fulfilled by the candidate to become eligible for the final examination.

- (i) **Attendance:** Every candidate shall secure (80% attendance during each academic year).
- (ii) **Progress and conduct:** Every candidate shall participate in seminars, journal review meetings, symposia, conferences, case presentations, clinics and didactic lectures during each year organised by the concerned department.
- (iii) **Work diary and log book:** Every candidate shall maintain a work diary and log book as per Annexure-I appended to these regulations for recording his or her participation in the training programmes conducted by the department. The work diary and log book shall be verified and certified by the Head of the Department of the institution. The certification of satisfactory progress is based on the work diary and log book.

UNIVERSITY EXAMINATION. The university examination shall consist of theory, practical and clinical examination and viva-voce and Pedagogy

12.1. THEORY:

Part-I: Shall consist of one paper. There shall be a theory examination in the Basic Sciences at the end of 1st year of course. The question papers shall be set and evaluated by the concerned Department/Specialty. The candidates shall have to secure a minimum of 50% in the Basic Sciences and shall have to pass the Part-I examination at least six months prior to the final (Part-II) examination.

Part-II: Shall consist of three papers, namely:–

(ii) Practical and Clinical Examination;

(iii) Viva-voce; and (iv) Pedagogy.

A candidate who wishes to study in a second speciality, shall have to undergo the full course of three years duration in that speciality.

12.2 DISSERTATION:

Every candidate appearing for the post-graduate degree examination shall at least six months prior to the examinations, submit with his form for examination, four typewritten copies of the dissertation undertaken by the candidate, prepared under the direction and guidance of his/her guide. The dissertation so submitted shall be referred to the examiners for their examination and acceptance of it shall be a condition precedent to allow the candidate to appear for the written part of the examination.

Provided that a candidate whose dissertation has been accepted by the examiner, but declared failed at the examination, shall be permitted to re-appear at the subsequent examination without a new dissertation: Provided further that if the dissertation is rejected by the examiner, the examiner shall assign reasons therefor with suggestions for its improvement to the candidate and such candidate shall resubmit his/ her dissertation to the examiner who shall accept it before appearing in the examination.

CLINICAL/PRACTICAL EXAMINATION:

Clinical/practical examination is designed to test the clinical skill, performance and competence of the candidate in skills such as communication, clinical examination, medical/dental procedures or prescription, exercise prescription, latest techniques, evaluation and interpretation of results so as to undertake independent work as a specialist. SRM university shall ensure that the candidate has been given ample

opportunity to perform various clinical procedures. The practical/clinical examination in all the specialities shall be conducted for six candidates in two days.

Provided that practical/clinical examination may be extended for one day, if it is not complete in two days.

VIVA-VOCE EXAMINATION:

Viva voce examination aims at assessing the depth of knowledge, logical reasoning, confidence and communication skill of the students.

SCHEME OF EXAMINATION:

Theory: Part-I: Basic Sciences Paper - **100 Marks**

Part-II: Paper-I, Paper-II & Paper-III - **300 Marks** (100 Marks for each Paper)

Written examination shall consist of Basic Sciences (Part-I) of three hours duration shall be conducted at the end of First year of MDS course. Part-II Examination shall be conducted at the end of Third year of MDS course. Part-II Examination shall consist of Paper-I, Paper-II and Paper-III, each of three hours duration. Paper-I & Paper-II shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Paper-III will be on Essays. In Paper-III three Questions will be given and student has to answer any two questions. Each question carries 50 marks. Questions on recent advances may be asked in any or all the papers.

12.3 DISTRIBUTION OF MARKS:

THEORY: (TOTAL 400 MARKS)

(1) PART I UNIVERSITY EXAMINATION (100Marks):

There shall be 10 questions of 10 marks each (Total of 100 Marks)

(2) PART II (3 papers of 100 Marks):

- (i) **Paper-I:** 2 long essay questions of 25 marks each and 5 short essays of 10 marks each. (Total of 100 Marks)
- (ii) **Paper-II:** 2 long essay questions of 25 marks each and 5 short essays of 10 marks each. (Total of 100 Marks)
- (iii) **Paper III:** 2 out of 3 essay questions (50 x 2 = 100 Marks)

PRACTICAL EXAMINATION : 200 MARKS

VIVA-VOCE AND PEDOGOGY: 100 MARKS

(MODEL QUESTION PATTERN)
MDS DEGREE EXAMINATIONS
PART I
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

TIME : 3 HRS
Answer All the Questions

MAX.MARKS:100
(10x10=100 marks)

- 1.-----
- 2.-----
- 3.-----
- 4.-----
- 5.-----
- 6.-----
- 7.-----
- 8.-----
- 9.-----
- 10.-----

(MODEL QUESTION PATTERN)
MDS DEGREE EXAMINATIONS
PART II- PAPER I
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

TIME : 3 HRS
Section A
Answer All the Questions

MAX.MARKS:100
(2x25=50 marks)

- 1.-----
- 2.-----

Section B
Answer All the Questions

(5x10=50 marks)

- 3.-----
- 4.-----
- 5.-----
- 6.-----
- 7.-----

(MODEL QUESTION PATTERN)
MDS DEGREE EXAMINATIONS
PART II- PAPER II
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

TIME : 3 HRS

MAX.MARKS:100

Section A

(2x25= 50 marks)

Answer All the Questions

- 1.-----
- 2.-----

Section B

(5x10= 50 marks)

Answer All the Questions

- 3.-----
- 4.-----
- 5.-----
- 6.-----
- 7.-----

(MODEL QUESTION PATTERN)
MDS DEGREE EXAMINATIONS
PART II- PAPER III
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

TIME : 3 HRS

MAX.MARKS:100

Section A

(2x50= 100 marks)

Answer Any 2 Questions

- 1.-----
- 2.-----
- 3.-----

M.D.S - Prosthodontics and Crown and Bridge				
Subject Code		Subject Title	Passing Minimum	Maximum Marks
Part - I				
17MDS211	Paper1	Applied Basic Sciences: Applied Anatomy, Embryology, Growth and Development Genetics, Immunology, Anthropology, Physiology, Nutrition and Biochemistry, Pathology, and Microbiology, Virology, Applied Pharmacology, Research Methodology and bio statistics, Applied Dental anatomy and histology, Oral Pathology and Oral Microbiology, Adult and Geriatric psychology. Applied Dental Materials.	50	100
		Theory Aggregate	50	100
Part – II				
17MDS221	Paper 1	Removable Prosthodontics and Implant supported Prosthesis(Implantology), Geriatric Dentistry Cranio facial Prosthodontics.		100
17MDS222	Paper 2	Fixed Prosthodontics, occlusion, TMJ and Esthetics.		100
17MDS223	Paper 3	Descriptive and Analysing type question		100
		Theory Aggregate	150	300
17MDS224	Paper 4	Practical and Clinical		200
17MDS225	Paper 5	Viva - Voce and Pedagogy		100
		Practical Aggregate	150	300

***Note:** The Topics assigned to the different papers are generally evaluated under those sections. However a strict division of the subject may not be possible and some overlapping of topics is inevitable. Students should be prepared to answer overlapping topics.

PRACTICAL EXAMINATIONS: PRACTICAL/CLINICAL EXAMINATION:200 MARKS

Examination shall be for three days. If there are more than 6 candidates, it may be extended for one more day. Each candidate shall be examined for a minimum of three days, six hours per day including viva voce.

DAY 1, DAY 2 & DAY 3 SEPARATE:

1. Presentation of treated patients and records during their 3 years training period - 25 Marks

- a. C.D. - 1 mark
- b. R. P.D. - 2 marks
- c. F.P.D. including single tooth and surface restoration - 2 marks
- d. I.S.P. - 5 marks
- e. Occlusal rehabilitation - 5 marks
- f. T.M.J. - 5 marks
- g. Maxillofacial Prosthesis - 5 marks

2. Present actual treated patients C.D. Prosthesis and Insertion - 90 Marks

- a. Discussion on treatment plan and patient review - 10 marks
- b. Tentative jaw relation records - 5 marks
- c. Face Bow - transfer - 5 marks
- d. Transferring it on articulators - 5 marks
- e. Extra, oral, tracing and securing centric
And protrusive/lateral, record - 25 marks
- f. Transfer in on articulator - 5 marks
- g. Selection of teeth - 5 marks
- h. Arrangement of teeth - 15 marks
- i. Waxed up denture trial - 10 marks
- j. Fit, insertion and instruction of previously processed characterised,
anatomic complete denture prosthesis - 5 marks

All steps will include chairside, lab and viva voce

3. Fixed Partial Denture - 50 Marks

- a. Case discussion and selection of patients for F.P.D.
- b. Abutment preparation isolation and fluid control
- c. Gingival retraction and impressions
- d. Cementation of provisional restoration

4. Removable Partial Denture - 35 Marks

- a. Surveying and designing of partial dentate cast.
- b. Discussion on components and material selection including occlusal scheme

5. Viva-voce and Pedagogy: 100 Marks

- ✓ Viva-Voce examination: 80 marks
All examiners will conduct viva-voce conjointly on candidate's comprehension, analytical approach, expression, interpretation of data and 'communication skills. It includes all components of course contents. It includes presentation and discussion on dissertation also.
- ✓ Pedagogy Exercise: 20 mark
A topic will be given to each candidate in the beginning of clinical examination. He/ she will be asked to make a presentation on the topic for 8-10 minutes.

13. EVALUATION METHOD

13.1. EXAMINERS:

PART I:

There shall be one internal and one external examiner for three students appointed by the affiliating university for evaluating the answer scripts of the same specialty. However, the number of examiner/s may be increased with the corresponding increase in number of students.

PART II:

There shall be four examiners in each subject. Out of them, two (50%) shall be external examiners and two (50%) shall be internal examiners. Both external examiners shall be from a university other than the affiliating university and one examiner shall be from a university of different State.

13.2. QUALIFICATION AND EXPERIENCE FOR EXAMINERS:

The qualification and experience for appointment of an examiner shall be as under:-

- (i) Shall possess qualification and experience of a Professor in a post-graduate degree programme;
- (ii) A person who is not a regular post-graduate teacher in the subject shall not be appointed as an examiner;
- (iii) The internal examiner in a subject shall not accept external examinership in a college for the same academic year;
- (iv) No person shall be appointed as an external examiner for the same institution for more than two consecutive years. However, if there is a break of one year, the person can be re-appointed.

13.3. VALUATION OF ANSWER BOOKS:

PART-I & II:

Answer books shall be evaluated by four examiners, two internal and two external and the average marks shall be computed.

14. PASSING MINIMUM:

To pass the university examination, a candidate shall secure in both theory examination and in practical/clinical including viva voce independently with an aggregate of 50% of total marks allotted (50 out of 100 marks in Part I examination and 150 marks out of 300 in Part II examination in theory and 150 out of 300, clinical plus viva voce together). A candidate securing marks below 50% as mentioned above shall be declared to have failed in the examination. A candidate who is declared successful in the examination shall be granted a Degree of Master of Dental Surgery in the respective specialty.

15. RE-VALUATION AND RE-TOTALLING:

There is no provision for re-evaluation or re-totalling of answer books.

16. CLASSIFICATION:

As the Master of Dental Surgery course is more of training and practice oriented giving class is precluded.

MEDALS AND RANKINGS:

All papers should be cleared in the first attempt and percentage of marks secured should be above 60.

17. SYLLABUS:

Part-I -Applied Basic Sciences

Part-II

1. Paper-I : Removable Prosthodontics and Implant supported prosthesis (Implantology), Geriatric dentistry and Cranio facial Prosthodontics
2. Paper-II : Fixed Prosthodontics, occlusion, TMJ and esthetics.
3. Paper-III : Descriptive and analyzing type question

DETAILED SYLLABUS:

PART I	Applied Basic Sciences: Applied anatomy, embryology, growth and development Genetics, Immunology, anthropology, Physiology, nutrition and Biochemistry, Pathology and Microbiology, virology, Applied pharmacology, Research Methodology and bio statistics,. Applied Dental anatomy and histology, Oral pathology & oral Microbiology, Adult and geriatric psychology. Applied dental materials.
PART II	
Paper-1	Removable Prosthodontics and Implant supported prosthesis(Implantology), Geriatric dentistry and Cranio facial Prosthodontics
Paper-2	Fixed Prosthodontics, occlusion, TMJ and esthetics.
Paper-3	Descriptive and analyzing type question

PART I

SUBJECT CODE	PAPER	SUBJECT TITLE
17MDS211	PAPER 1	Applied Basic Sciences: Applied Anatomy, Embryology, Growth and Development Genetics, Immunology, Anthropology, Physiology, Nutrition and Biochemistry, Pathology, and Microbiology, Virology, Applied Pharmacology, Research Methodology and bio statistics, Applied Dental anatomy and histology, Oral Pathology and Oral Microbiology, Adult and Geriatric psychology. Applied Dental Materials.

PAPER 1: Applied Anatomy, Physiology Pathology and Dental Materials

APPLIED ANATOMY OF HEAD AND NECK:

General Human Anatomy - Gross Anatomy, anatomy of Head and Neck in detail. Cranial and facial bones, TMJ and function, muscles of mastication and facial expression, muscles of neck and back including muscles of deglutition and tongue, arterial supply and venous drainage of the head and neck, anatomy of the Para nasal sinuses with relation to the Vth cranial nerve. General consideration of the structure and function of the brain. Brief considerations of V, VII, XI, XII, cranial nerves and autonomic nervous system of the head and neck. The salivary glands, Pharynx, Larynx Trachea, Esophagus, Functional Anatomy of mastication, Deglutition, speech, respiration, and circulation, teeth eruption, morphology, occlusion and function. Anatomy of TMJ, its movements and myofacial pain dysfunction syndrome

Embryology - Development of the face, tongue, jaws, TMJ, Paranasal sinuses, pharynx, larynx, trachea, esophagus, Salivary glands, Development of oral and Para oral tissue including detailed aspects of tooth and dental hard tissue formation.

Growth & Development - Facial form and Facial growth and development overview of Dentofacial growth process and physiology from fetal period to maturity and old age, comprehensive study of craniofacial biology. General physical growth, functional and anatomical aspects of the head, changes in craniofacial skeletal, relationship between development of the dentition and facial growth

Dental Anatomy - Anatomy of primary and secondary dentition, concept of occlusion, mechanism of articulation, and masticatory function. Detailed structural and functional study of the oral dental and Para oral tissues. Normal occlusion, development of occlusion in deciduous mixed and permanent dentitions, root length, root configuration, tooth-numbering system.

Histology - histology of enamel, dentin, Cementum, periodontal ligament and alveolar bone, pulpal anatomy, histology and biological consideration. Salivary glands and Histology of epithelial tissues including glands.

Histology of general and specific connective tissue including bone, hematopoietic system, lymphoid etc.

Muscle and neural tissues, Endocrinal system including thyroid, Salivary glands, Histology of skin, oral mucosa, respiratory mucosa, connective tissue, bone, cartilage, cellular elements of blood vessels, blood, lymphatic, nerves, muscles, tongue, tooth and its surrounding structures.

Anthropology & Evolution - Comparative study of tooth, joints, jaws, muscles of mastication and facial expression, tongue, palate, facial profile and facial skeletal system. Comparative anatomy of skull, bone, brain, musculo - skeletal system, neuromuscular coordination, posture and gait – plantigrade and orthograde posture.

Applied Genetics and Heredity - Principles of orofacial genetics, molecular basis of genetics, genetic risks, counseling, bioethics and relationship to Orthodontic management. Dentofacial anomalies, Anatomical, psychological and pathological characteristic of major groups of developmental defects of the orofacial structures. Cell biology - Detailed study of the structure and function of the mammalian cell with special emphasis on ultra structural features and molecular aspects. Detailed consideration of Inter cellular junctions. Cell cycle and division, cell-to-cell and cell-extra cellular matrix interactions.

APPLIED PHYSIOLOGY AND NUTRITION:

Introduction, Mastication, deglutition, digestion and assimilation, Homeostasis, fluid and electrolyte balance. Blood composition, volume, function, blood groups and hemorrhage, Blood transfusion, circulation, Heart, Pulse, Blood pressure, capillary and lymphatic circulation, shock, respiration, control, anoxia, hypoxia, asphyxia, artificial respiration. Endocrine glands in particular reference to pituitary, parathyroid and thyroid glands and sex hormones. Role of calcium and Vit D in growth and development of teeth, bone and jaws. Role of Vit.A, C and B complex in oral mucosal and periodontal health. Physiology and function of the masticatory system. Speech mechanism, mastication, swallowing and deglutition mechanism, salivary glands and Saliva.

ENDOCRINES:

General principles of endocrine activity and disorders relating to pituitary, thyroid, pancreas, parathyroid, adrenals, gonads, including pregnancy and lactation. Physiology of saliva, urine formation, normal and abnormal constituents, Physiology of pain, Sympathetic and parasympathetic nervous system. Neuromuscular co-ordination of the stomatognathic system.

APPLIED PATHOLOGY:

Inflammation, repair and degeneration, Necrosis and gangrene, Circulatory disturbances, Ischemia, hyperemia, chronic venous congestion, edema, thrombosis, embolism and infarction. Infection and infective granulomas, Allergy and hypersensitive reaction, Neoplasm; Classification of tumors, Carcinogenesis, characteristics of benign and malignant tumors, spread of tumors. Applied histo pathology and clinical pathology.

APPLIED DENTAL MATERIAL:

- ✓ All materials used for treatment of craniofacial disorders - Clinical, treatment, and laboratory materials, Associated materials, Technical consideration, shelf life, storage, manipulations, sterilization, and waste management.
- ✓ Students shall be trained and practiced for all clinical procedures with an advanced knowledge of theory of principles, concepts and techniques of various honorably accepted methods and materials for Prosthodontics, treatment modalities includes honorableaccepted methods of diagnosis, treatment plan, records maintenance, and treatment and laboratory procedures and after care and preventive.
- ✓ Understanding all applied aspects for achieving physical, psychological well being of the patients for control of diseases and / or treatment related

- syndromes with the patient satisfaction and restoring function of Cranio mandibular system for a quality life of a patient
- ✓ The theoretical knowledge and clinical practice shall include principles involved for support, retention, stability, esthetics, phonation, mastication, occlusion, behavioural, psychological, preventive and social aspects of science of Prosthodontics including Crown & Bridge and Implantology
 - ✓ Theoretical knowledge and clinical practice shall include knowledge for laboratory practice and material science. Students shall acquire knowledge and practice of history taking, systemic and oro and Craniofacial region and diagnosis and treatment plan and prognosis record maintaining. A comprehensive rehabilitation concept with pre prosthetic treatment plan including surgical Reevaluation and prosthodontic treatment plan, impressions, jaw relations, utility of face bow and articulators, selection and positioning of teeth for retention, stability, esthetics, phonation and psychological comfort. Fit and insertion and instruction for patients after care and preventive Prosthodontics, management of failed restorations.
 - ✓ TMJ syndromes, occlusion rehabilitation and craniofacial esthetics. State of the art clinical methods and materials for implants supported extra oral and intra oral prosthesis.

ESSENTIAL KNOWLEDGE:

APPLIED NUTRITION:

General principles, balanced diet, effect of dietary deficiencies and starvation, Diet, digestion, absorption, transportation and utilization, diet for elderly patients.

APPLIED BIOCHEMISTRY:

General principles governing the various biological activities of the body, such as osmotic pressure, electrolytic dissociation, oxidation-reduction, etc. general composition of the body, intermediary metabolism, Carbohydrates, proteins, liquids and their metabolism, Enzymes, Vitamins, and minerals, Hormones, Blood and other body fluids, Metabolism of inorganic elements, Detoxication in the body, Anti metabolites.

APPLIED PHARMACOLOGY & THERAPEUTICS:

Definition of terminologies used - Dosage and mode of administration of drugs. Action and fare of drugs in the body, Drug addiction, tolerance and hypersensitive reactions, Drugs acting on the central nervous system, general anesthetics hypnotics. Analeptics and tranquilizers, Local anesthetics, Chemotherapeutics and antibiotics, Antitubercular and anti syphilitic drugs, Analgesics and antipyretics, Antiseptics, styptics, Sialogogues and antisialogogues, Haematinics, Cortisone,

ACTH, insulin and other antidiabetics vitamins: A, D, B - complex group C and K etc. Chemotherapy and Radiotherapy

APPLIED MICROBIOLOGY:

Immunity, knowledge of organisms commonly associated with diseases of the oral cavity (morphology cultural characteristics etc) of strepto, staphylo, pneumo, gono and meningococci, Clostridia group of organisms, Spirochetes, organisms of tuberculosis, leprosy, diphtheria, actinomycosis and moniliasis etc. Virology, Cross infection control, sterilization and hospital waste management.

APPLIED 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 endocrine disturbances, Diseases of the blood and blood forming organism in relation to the oral cavity, Periodontal diseases, Diseases of the skin, nerves and muscles in .relation to the Oral cavity.

LABORATORY DETERMINATIONS:

Blood groups, blood matching, R.B.C. and W.B.C. count, Bleeding and clotting time, Smears and cultures - urine analysis and culture.

BIOSTATISTICS:

Study of Biostatistics as applied to dentistry and research. Definition, aim characteristics and limitations of statistics, planning of statistical experiments, sampling, collection, classification and presentation of data (Tables, graphs, pictograms etc) Analysis of data.

INTRODUCTION TO BIOSTATISTICS: Scope and need for statistical application to biological data. Definition of selected terms - scale of measurements related to statistics, Methods of collecting data, presentation of the statistical diagrams and graphs.

Frequency curves, mean, mode of median, Standard deviation and co-efficient of variation, Correlation - Co-efficient and its significance, Binominal distributions normal distribution and Poisson distribution, Tests of significance

RESEARCH METHODOLOGY:

Understanding and evaluating dental research, scientific method and the behavior of scientists, understanding to logic - inductive logic - analogy, models, authority,

hypothesis and causation, Quacks, Cranks, Abuses of Logic, Measurement and Errors of measurement, presentation of results, Reliability, Sensitivity and specificity diagnosis test and measurement, Research Strategies, Observation, Correlation, Experimentation and Experimental design. Logic of statistical interference balance judgements, judgement under uncertainty, clinical vs., scientific judgement, problem with clinical judgement, forming scientific judgements, the problem of contradictory evidence, citation analysis as a Means of literature evaluation, influencing judgement : Lower forms of Rhetorical life, Denigration, Terminal, Inexactitude.

APPLIED RADIOLOGY:

Introduction, radiation, background of radiation, sources, radiation biology, somatic damage, genetic damage, protection from primary and secondary radiation, Principles of X-ray production, Applied principles of radio therapy and after care.

ROENTGENOGRAPHIC TECHNIQUES:

Intra oral: Extra oral roentgenography, Methods of localization digital radiology and ultra sound, Normal anatomical landmarks of teeth and jaws in radiograms, temporomandibular joint radiograms, neck radiograms.

APPLIED MEDICINE:

Systemic diseases and its influence on general health and oral and dental health. Medical emergencies in the dental offices - Prevention, preparation, medico legal consideration, unconsciousness, respiratory distress, altered consciousness, seizures, drug related emergencies, chest pain, cardiac arrest, premedication, and management of ambulatory patients, resuscitation, applied psychiatry, child, adult and senior citizens. Assessment of case, premedication, inhibition, monitoring, extubation, complication assist in D.T. for anesthesia.

APPLIED SURGERY & ANESTHESIA:

General principles of surgery, wound healing, incision wound care, hospital care, control of hemorrhage, electrolyte balance. Common bandages, sutures, splints, shifting of critically ill patients, prophylactic therapy, bone surgeries, grafts, etc, surgical techniques, nursing assistance, anesthetic assistance.

Principles in speech therapy, surgical and radiological craniofacial oncology, applied surgical ENT and ophthalmology.

PLASTIC SURGERY:

Applied understanding and assistance in programmes of plastic surgery for prosthodontics therapy.

- Student shall acquire knowledge of testing biological, mechanical and other physical property of all material used for the clinical and laboratory procedures in prosthodontic therapy.
- Students shall acquire full knowledge and practice Equipments, instruments, materials, and laboratory procedures at a higher competence with accepted methods.
- All clinical practice shall involve personal and social obligation of cross infection control, sterilization and waste management.

PART II

SUBJECT CODE	PAPER	SUBJECT TITLE
17MDS221	PAPER 1	Removable Prosthodontics and Implant supported Prosthesis (Implantology), Geriatric Dentistry Cranio facial Prosthodontics.

PART -II

PAPER-1 REMOVABLE PROSTHODONTICS AND ORAL IMPLANTOLOGY

I. REMOVABLE PROSTHODONTICS AND IMPLANTS

- Prosthodontic treatment for completely edentulous patients - Complete denture, immediate complete denture, single complete denture, tooth supported complete denture, Implant supported Prosthesis for completely edentulous
- Prosthodontic treatment for partially edentulous patients: - Clasp-retained partial dentures, intra coronal and extra coronal precision attachments retained partial dentures, maxillofacial prosthesis.

Prosthodontic treatment for edentulous patients: - Complete Dentures and Implant supported Prosthesis.

Complete Denture Prosthesis - Definitions, terminology, G.P.T., Boucher's clinical dental terminology Scope of Prosthodontic - the Cranio Mandibular system and its functions, the reasons for loss of teeth and methods of restorations, Infection control, cross infection barrier - clinical and laboratory and hospital and lab waste management

- Edentulous Predicament, Biomechanics of the edentulous state, Support mechanism for the natural dentition and complete dentures, Biological

- considerations, Functional and Para functional considerations, Esthetic, behavioral and adaptive responses, Temporomandibular joints changes.
- b) Effects of aging of edentulous patients - aging population, distribution and edentulism in old age, impact of age on edentulous mouth - Mucosa, Bone, saliva, jaw movements in old age, taste and smell, nutrition, aging, skin and teeth, concern for personal appearance in old age.
 - c) Sequelae caused by wearing complete denture - the denture in the oral environment - Mucosal reactions, altered taste perception, burning mouth syndrome, gagging, residual ridge reduction, denture stomatitis, flabby ridge, denture irritation hyperplasia, traumatic Ulcers, Oral cancer in denture wearers, nutritional deficiencies, masticatory ability and performance, nutritional status and masticatory functions.
 - d) Temporomandibular disorders in edentulous patients - Epidemiology, etiology and management, Pharmacotherapy, Physical modalities, and Bio-behavioral modalities.
 - e) Nutrition Care for the denture wearing patient - Impact of dental status on food intake, Gastrointestinal functions, nutritional needs and status of older adults, Calcium and bone health, vitamin and herbal supplementation, dietary counseling and risk factor for malnutrition in patients with dentures and when teeth are extracted.
 - f) Preparing patient for complete denture patients - Diagnosis and treatment planning for edentulous and partially edentulous patients - familiarity with patients, principles of perception, health questionnaires and identification data, problem identification, prognosis and treatment identification data, problem identification, prognosis and treatment planning - contributing history - patient's history, social information, medical status - systemic status with special reference to debilitating diseases, diseases of the joint, cardiovascular, disease of the skin, neurological disorders, oral malignancies, climacteric, use of drugs, mental health - mental attitude, psychological changes, adaptability, geriatric changes - physiologic, pathological, pathological and intra oral changes. Intra oral health - mucose membrane, alveolar ridges, palate and vestibular sulcus and dental health.
- Data collection and recording, visual observation, radiography, palpation, measurement - sulci or fossae, extra oral measurement, the vertical dimension of occlusion, diagnostic casts.
- Specific observations - existing dentures, soft tissue health, hard tissue health - teeth, bone Biomechanical considerations - jaw relations, border tissues, saliva, muscular development - muscle tone, neuromuscular co-ordination, tongue, cheek and lips. Interpreting diagnostic findings and treatment planning

- g) Pre prosthetic surgery - Improving the patients denture bearing areas and ridge relations: - non surgical methods - rest for the denture supporting tissues, occlusal correction of the old prosthesis, good nutrition, conditioning of the patients musculature, surgical methods - Correction of conditions, that preclude optimal prosthetic function - hyperplastic ridge – epulis fissuratum and papillomatosis, frenular attachments and pendulous maxillary tuberosities, ridge augmentation, maxillary and Mandibular oral implants, corrections of congenital deformities, discrepancies in jaw size, relief of pressure on the mental foramen, enlargement of denture bearing areas, vestibuloplasty, ridge augmentation, replacement of tooth roots with Osseo integrated denture implants.
- h) Immediate Denture - Advantages, disadvantages, contra indication, diagnosis treatment plan and prognosis, Explanation to the patient, Oral examinations, examination of existing prosthesis, tooth modification, prognosis, referrals/adjunctive care, oral prophylaxis and other treatment needs. First extraction/surgical visit, preliminary impressions and diagnostic casts, management of loose teeth, custom trays, final impressions and final casts two tray or sectional custom impression tray, location of posterior limit and jaw relation records, setting the denture teeth / verifying jaw relations and the patient try in, laboratory phase, setting of anterior teeth, Wax contouring, flasking and boil out, processing and finishing, surgical templates, surgery and immediate denture insertion, post operative care and patient instructions, subsequent service for the patient on the immediate denture, over denture tooth attachments, implants or implant attachments.
- i) Over dentures (tooth supported complete dentures) - indications and treatment planning, advantages and disadvantages, selection of abutment teeth, lose of abutment teeth, tooth supported complete dentures. Non-coping abutments, abutment with copings, abutments with attachments, submerged vital roots, preparations of the retained teeth.
- j) Single Dentures: Single Mandibular denture to oppose natural maxillary teeth, single complete maxillary denture to oppose natural Mandibular teeth to oppose a partially edentulous Mandibular arch with fixed prosthesis, partially edentulous Mandibular arch with removable partial dentures. Opposing existing complete dentures, preservation of the residual alveolar ridge, necessity for retaining maxillary teeth and mental trauma.
- k) Art of communication in the management of the edentulous predicament - Communication - scope, a model of communication, why communication important, what are the elements , of effective communications, special significance of doctor / patient communication, doctor behavior, The iatrosedative (doctor & act of making calm) recognizing and acknowledging

the problem, exploring and identifying the problem, interpreting and explaining the problem, offering a solution to the problem for mobilize their resources to operate most efficient way, recognizing and acknowledging the problem, interpreting and explaining the problem, offering a solution to the problem.

- l) Materials prescribed in the management of edentulous patients - Denture base materials, General requirements of biomaterials for edentulous patients, requirement of an ideal denture base, chemical composition of denture base resins, materials used in the fabrication of prosthetic denture teeth, requirement of prosthetic denture teeth, denture lining materials and tissue conditioners, cast metal alloys as denture, bases - base metal alloys.
- m) Articulators - Classification, selection, limitations, precision, accuracy and sensitivity, and Functional activities of the lower member of the articulator and uses.
- n) Fabrications of complete dentures - complete denture impressions - muscles of facial expressions and anatomical landmarks, support, retention, stability, aims and objectives - preservation, support, stability, aesthetics, and retention. Impression materials and techniques - need of 2 impressions the preliminary impression and final impression Developing an analogue / substitute for the maxillary denture bearing area anatomy of supporting structures - mucous membrane, hard palate, residual ridge, shape of the supporting structure and factors that influence the form and size of the supporting bones, incisive foramen, maxillary tuberosity, sharp spiny process, torus palatines, Anatomy of peripheral or limiting structures, labial vestibule, Buccal vestibule, vibrating line, preliminary and final impressions, impression making, custom tray and refining the custom tray, preparing the tray to secure the final impression, making the final impression, boxing impression and making the casts.
Developing an analogue / substitute for the Mandibular denture bearing area-Mandible - anatomy of supporting structure, crest of the residual ridge, the Buccal shelf, shape of supporting structure, mylohyoid ridge, mental foramen, genial tubercles, torus mandibularis, Anatomy of peripheral or limiting structure - labial vestibule, Buccal vestibule, lingual border, mylohyoid muscle, retromylohyoid fossa, sublingual gland region, alveolingual sulcus, Mandibular impressions - preliminary impressions, custom tray, refining, preparing the tray \ , final impressions.
- o) Mandibular movements, Maxillo mandibular relation and concepts of occlusion - Gnathology, identification of shape and location of arch form - Mandibular and maxillary, occlusion rim, level of occlusal plane and recording of trail denture base, tests to determine vertical dimension of occlusion, interocclusal, centric relation records, Biological and clinical considerations in making jaw relation records and transferring records from the patients to the articulator,

Recording of Mandibular movements -influence of opposing tooth contacts, Temporomandibular joint, muscular involvements, neuromuscular regulation of Mandibular motion, the envelope of motion, rest position, Maxillo - Mandibular relations - the centric, eccentric, physiologic rest position, vertical dimension, occlusion, recording methods - mechanical, physiological, Determining the horizontal jaw relation - Functional graphics, tactile; or interocclusal check record method, 'Orientation / sagittal relation records, Arbitrary / Hinge axis and face bow record, significance and requirement, principles and biological considerations and securing on articulators.

- p) Selecting and arranging artificial teeth and occlusion for the edentulous patient -anterior tooth selection, posterior tooth selection, and principles in arrangement of teeth, and factors governing position of teeth - horizontal, vertical. The inclinations and arrangement of teeth for aesthetics, phonetics and mechanics - to concept of occlusion.
- q) The Try in - verifying vertical dimension, centric relation, establishment of posterior palatal seal, creating a facial and functional harmony with anterior teeth, harmony of spaces of individual teeth position, harmony with sex, personality and age of the patient, co-relating aesthetics and incisal guidance.
- r) Speech considerations with complete dentures - speech production - structural and functional demands, neuropsychological background, speech production and the roll of teeth and other oral structures - bilabial sounds, labiodentals sounds, linguodental sounds, linguoalveolar sound, articulatoric characteristics, acoustic characteristics, auditory characteristics, linguopalatal and linguoalveolar sounds, speech analysis and prosthetic considerations.
- s) Waxing contouring and processing the dentures their fit and insertion and after care -laboratory procedure - wax contouring, flasking and processing, laboratory remount procedures and selective, finishing and polishing. Critiquing the finished prosthesis -doctors evaluation, patients evaluation, friends evaluation, elimination of basal surface errors, errors in occlusion, interocclusal records for remounting procedures - verifying centric relation, eliminating occlusal errors, special instructions to the patient -appearance with new denture, mastication with new dentures, speaking with new dentures, speaking with new dentures, oral hygiene with dentures, preserving of residual ridges and educational material for patients, maintaining the comfort and health of the oral cavity in the rehabilitated edentulous patients. Twenty-four hours oral examination and treatment and preventive Prosthodontic periodontic recall for oral examination 3 to 4 months intervals and yearly intervals.
- t) Implant supported Prosthesis for partially edentulous patients - Science of Osseo integration, clinical protocol for treatment with implant supported over

dentures, managing problems and complications, implant Prosthodontics for edentulous patients: current and future directions.

- u) Implant supported prosthesis for partially edentulous patients - Clinical and laboratory protocol: Implant supported prosthesis, managing problems and complications
 - i Introduction and Historical Review
 - ii Biological, clinical and surgical aspects of oral implants
 - iii Diagnosis and treatment planning
 - iv Radiological interpretation for selection of fixtures
 - v Radiological interpretation for selection of fixtures
 - vi Splints for guidance for surgical placement of fixtures
 - vii Intraoral plastic surgery
 - viii Guided bone and Tissue generation consideration for implants fixture.
 - ix Implants supported prosthesis for complete edentulism and partial edentulism
 - x Occlusion for implants support prosthesis.
 - xi Peri-implant tissue and Management
 - xii Peri - implant and management
 - xiii Maintenance and after care
 - xiv Management of failed restoration.
 - xv Work authorization for implant supported prosthesis -definitive instructions, legal aspects, delineation of responsibility.

Prosthodontic treatment for partially edentulous patients Removable Partial Prosthodontics -

- a. Scope, definition and terminology, Classification of partially edentulous arches- requirements of an acceptable methods of classification, Kennedy's classification, Applegate's rules for applying the Kennedy classification
- b. Components of RPD - major connector - mandibular and maxillary, minor connectors, design, functions, form and location of major and minor connectors, tissue stops, finishing lines, reaction of tissue to metallic coverage.

Rest and rest seats - from of the Occlusal rest and rest seat, interproximal Occlusal rest seats, internal Occlusal rests, possible movements of partial dentures, support for rests, lingual rests on canines and incisor teeth, incisal rest and rest seat.

Direct retainer- Internal attachment, extracoronal direct retainer, relative uniformity of retention, flexibility of clasp arms, stabilizing - reciprocal clasp are, criteria for

selecting a given clasp design, the basic principles of clasp design, circumferential clasp, bar clasp, combination clasp and other type of retainers.

Indirect Retainer - denture rotation about an axis, factors influencing effectiveness of indirect retainers, forms of indirect retainers, auxiliary Occlusal rest, canine extensions from Occlusal rests, canine rests, continuous bar retainers and linguoplates, modification areas, rugae support, direct - indirect retention.

Principles of removable partial Denture design - bio mechanic considerations, and the factors influence after mouth preparations - Occlusal relationship of remaining teeth, orientation of Occlusal plane, available space for restoration, arch integrity, tooth morphology, response of oral structure to previous stress, periodontal conditions, abutment support, tooth supported and tooth and tissue supported, need for indirect retention, clasp design, need for rebasing, secondary impression, need for abutment tooth modification, type of major connector, type of teeth selection, patients past experience, method of replacing single teeth or missing anterior teeth.

Difference between tooth supported and tissue supported partial dentures, essential of partial denture design, components of partial denture design, tooth support, ridge support, stabilizing components, guiding planes, use of splint bar for denture support, internal clip attachments, overlay abutment as support for a denture base, use of a component partial to gain support.

- c. Education of patient
- d. Diagnosis and treatment planning
- e. Design, treatment sequencing and mouth preparation
- f. Surveying - Description of dental surveyor, purposes of surveying, Aims and objectives in surveying of diagnostic cast and master cast, Final path of placement, factors that determine path of placement and removal, Recording relation of cast to surveyor, measuring retention, Blocking of master cast - paralleled blackout, shaped blackout, arbitrary blackout and relief.
- g. Diagnosis and treatment planning - Infection control and cross infection barriers - clinical and laboratory and hospital waste management, Objectives of prosthodontic treatment, Records, systemic evaluation, Oral examination, preparation of diagnostic cast, interpretation of examination data, radiographic interpretation, periodontal considerations, caries activity, prospective surgical preparation, endodontic treatment, analysis of occlusal factors, fixed restorations, orthodontic treatment, need for determining the design of components, impression procedures and occlusion, need for reshaping remaining teeth, reduction of unfavorable tooth contours, differential

diagnosis:fixed or removable partial dentures, choice between complete denture and removable partial dentures, choice of materials

- h. Preparation of Mouth for removable partial dentures - Oral surgical preparation, conditioning of abused and irritated tissues, periodontal preparation - objectives of periodontal therapy, periodontal diagnosis, control therapy, periodontal surgery.
- i. Preparation of Abutment teeth - Classification of abutment teeth, sequence of abutment preparations on sound enamel or existing restorations, conservative restoration using crowns, splinting abutment teeth, utilization, temporary crowns to be used as abutment.
- j. Impression Materials and Procedures for Removable Partial Dentures - Rigid materials, thermoplastic materials, Elastic materials, Impressions of the partially edentulous arch, Tooth supported, tooth tissue supported, Individual impression trays.
- k. Support for the Distal Extension Denture Base - Distal extension removable partial denture, Factors influencing the support of distal extension base, Methods for obtaining functional support for the distal extension base.
- l. Laboratory Procedures - Duplicating a stone cast, Waxing the partial denture framework, Anatomic replica patterns, Spruing, investing, burnout, casting and finishing of the partial denture framework, making record bases, occlusion rims, making a stone occlusal template from a functional occlusal record, arranging posterior teeth to an opposing cast or template, types of anterior teeth, waxing and investing the partial denture before processing acrylic resin bases, processing the denture, remounting and occlusal correction to an occlusal template, polishing the denture.
- m. Initial placement, adjustment and servicing of the removable partial denture - adjustments to bearing surfaces of denture framework, adjustment of occlusion in harmony with natural and artificial dentition, instructions to the patient, follow - up services
- n. Relining and Rebasings the removable partial denture - Relining tooth supported dentures bases, relining distal extension denture bases, methods of reestablishing occlusion on a relined partial denture.
- o. Repairs and additions to removable partial dentures - Broken clasp arms, fractured occlusal rests, distortion or breakage of other components - major and minor connectors, loss of a tooth or teeth not involved in the support or retention of the restoration, loss of an abutment tooth necessitating its replacement and making a new direct retainer, Other types of repairs, Repair by soldering.
- p. Removable partial denture considerations in maxillofacial prosthetics - Maxillofacial prosthetics, intra oral prosthesis, design considerations, maxillary

prosthesis, Obturators, speech aids, palatal lifts, palatal augmentations, mandibular prosthesis, treatment 'planning, framework design, class I resection, Class II resection, mandibular flange prosthesis, jaw relation record.

q. Management of failed restorations and work authorization

(ii) MAXILLOFACIAL REHABILITATION:

Scope, terminology, definitions, cross infection control and hospital waste management, work authorization.

Behavioral and psychological issues in Head and neck cancer, Psychodynamic interactions -clinician and patient - Cancer Chemotherapy: Oral Manifestations, Complications, and management, Radiation therapy of head and neck tumors: Oral effects, Dental manifestations and dental treatment: Etiology, treatment and rehabilitation (restoration) - Acquired defects of the mandible, acquired defects of hard palate, soft palate, clinical management of edentulous and partially edentulous maxillectomy patients, Facial defects, Restoration of speech, Velopharyngeal function, cleft lip and palate, cranial implants, maxillofacial trauma, Lip and cheek support prosthesis, Laryngectomy aids, Obstructive sleep apnoea, Tongue prosthesis, Esophageal prosthesis, Vaginal radiation carrier, Burn stents, Nasal stents, Auditory inserts, trismus appliances, mouth controlled devices for assisting the handicapped, custom prosthesis for lagophthalmos of the 'eye. Osseo integrated supported facial and maxillofacial prosthesis. Resin bonding for maxillofacial prosthesis, Implant rehabilitation of the mandible compromise by radiotherapy, Craniofacial Osseo integration, Prosthodontic treatment, Material and laboratory procedures for maxillofacial prosthesis.

PART II

SUBJECT CODE	PAPER	SUBJECT TITLE
17MDS222	PAPER 2	Fixed Prosthodontics, occlusion, TMJ & Esthetics.

PAPER-II FIXED PROSTHODONTICS

Scope, definitions and terminology, classification and principles, design, mechanical and biological considerations of components - Retainers, connectors, pontics, work authorization.

- Diagnosis and treatment planning - patients history and interview, patients desires and expectations and needs, systemic and emotional health, clinical examinations - head and neck, oral - teeth, occlusal and periodontal, Preparation of diagnostic cast, radiographic interpretation, Aesthetics, endodontics considerations, abutment selection - bone support, root proximities and inclinations, selection of abutments, for cantilever, pier

abutments, splinting, available tooth structures and crown morphology, TMJ and muscles mastication and comprehensive planning and prognosis.

- Management of Carious teeth - caries in aged, caries control, removal carious, protection of pulp, reconstruction measure for compromising teeth - retentive pins, horizontal slots, retention grooves, prevention of caries, diet, prevention of root caries and vaccine for caries.
- Periodontal considerations - attachment units, ligaments, gingivitis, periodontitis. Microbiological aspect of periodontal diseases, marginal lesion, occlusal trauma, periOdontal pockets attached gingiva, interdental papilla, gingival embrasures, gingival/ periodontal prosthesis, radiographic interpretations of Periodontia, intraoral, periodontal splinting - Fixed prosthodontics with periodontially compromised dentitions, placement of margin restorations.
- BioMechanical principle of tooth preparations - individual tooth preparations - Corhplete metal Crowns - P.F.C., All porcelain - Cerestore crowns, dicor crowns, inceram etc. porcelain jacket crowns partial 3/4, proximal half, radicular 7/8, telescopic, pin-ledge, laminates, inlays, onlays and preparations for restoration of teeth-amalgam, glass ionomer and composite resins, Resin Bond retainers, Gingival marginal preparations - Design, material selection, and biological and mechanical considerations - intracoronal retainer and precision attachments - custom made and ready made.
- Isolation and fluid control - Rubber dam applications, tissue dilation - soft tissue management for cast restoration, impression materials and techniques, provisional restoration, interocchisal records, laboratory support for fixed Prosthodontics, Occlusion, Occlusal equilibration, articulators, recording and transferring of occlusal relations, cementing of restorations.\
- Resins, Gold and gold alloys, glass ionomer, restorations.
- Restorations of endodontically treated teeth, Stomatognathic Dysfunction and management
- Management of failed restorations

Osseo integrated supported fixed Prosthodontics - Osseo integrated supported and tooth supported fixed Prosthodontics

OCCLUSION

EVALUATION, DIAGNOSIS AND TREATMENT OF OCCLUSAL PROBLEMS:

Scope, definition, terminology, optimum oral health, anatomic harmony, functional harmony, occlusal stability, causes of deterioration of dental and oral health, Anatomical, physiological, neuro - muscular, psychological, considerations of

teeth, muscles of mastication, temporomandibular joint, intra oral and extra oral and facial musculatures, the functions of Cranio mandibular system.

Occlusal therapy, the stomatognathic system, centric relation, vertical dimension, the neutral zone, the occlusal plane, differential diagnosis of temporomandibular disorders, understanding and diagnosing intra articular problems, relating treatment to diagnosis of internal derangements of TMJ, Occlusal splints, Selecting instruments for occlusal diagnosis and treatment, mounting casts, Pankey-mannschuyler philosophy of complete occlusal rehabilitation, long centric, anterior guidance, restoring lower anterior teeth, restoring upper anterior teeth, determining the type of posterior occlusal contours, methods for determining the plane of occlusion, restoring lower posterior teeth, restoring upper posterior teeth, functionally generated path techniques for recording border movements intra orally, occlusal equilibration, Bruxism, Procedural steps in restoring occlusions, requirements for occlusal stability, solving occlusal problems through programmed treatment planning, splinting, solving - occlusal wear problems, deep overbite problems, anterior overjet problems, anterior open bite problems. Treating - end to end occlusion, splayed anterior teeth, cross bite patient, Crowded, irregular, or interlocking anterior bite, using Cephalometric for occlusal analysis, solving severe arch malrelationship problems, transcranial radiography, postoperative care of occlusal therapy.

TMJ Temporomandibular joint dysfunction - Scope, definitions, and terminology. Temporomandibular joint and its function, Orofacial pain, and pain from the temporomandibular joint region, temporomandibular joint dysfunction, temporomandibular joint sounds, temporomandibular joint disorders

Anatomy related, trauma, disc displacement, Osteoarthritis/Osteoarthritis, Hyper mobility and dislocation, infectious arthritis, inflammatory diseases, Eagle's syndrome (Styloidstylohyoid syndrome), Synovial chondromatosis, Osteochondrosis disease, Osteonecrosis, Nerve entrapment process, Growth changes, Tumors, Radiographic imaging.

- Etiology, diagnosis and crania mandibular pain, differential diagnosis and management of orofacial pain - pain from teeth, pulp, dentin, muscle pain, TMJ pain -psycho logic, physiologic - endogenous control, acupuncture analgesia, Placebo effects on analgesia, Trigeminal neuralgia, Temporal arteritis

- Occlusal splint therapy - construction and fitting of occlusal splints, management of occlusal splints, therapeutic effects of occlusal splints, occlusal splints and general muscles performance, TMJ joint uploading and anterior repositioning appliances, use and care of occlusal splints.
- Occlusal adjustment procedures - Reversible - occlusal stabilization splints and physical therapies, jaw exercises, jaw manipulation and other physiotherapy or irreversible therapy - occlusal repositioning appliances, orthodontic treatment, Orthognathic surgery, fixed and removable prosthodontic treatment and occlusal adjustment, removable prosthodontic treatment and occlusal adjustment, Indication for occlusal adjustment, special nature of orofacial pain, Indication for occlusal adjustment, special nature of orofacial pain, Psychopathological considerations, occlusal adjustment philosophies, mandibular position, excursive guidance,, occlusal contact scheme, goals of occlusal adjustment, significance of a slide in centric, Preclinical procedures, clinical procedures for occlusal adjustment.

AESTHETICS

SCOPE.DEFINITIONS:

Morpho psychology and esthetics, structural esthetic rules - facial components, dental components, gingival components and physical components. Esthetics and its relationship to function - Crown morphology, physiology of occlusion, mastication, occlusal loading and clinical aspect in bio esthetic aspects, Physical and physiologic characteristic and muscular activities of facial muscle, perioral anatomy and muscle retaining exercises Smile - classification and smile components, smile design, esthetic restoration of smile, Esthetic management of the dentogingival unit, intraoral materials for management of gingival contours, and ridge contours, Periodontal esthetics, Restorations - Tooth colored restorative materials, the clinical and laboratory aspects, marginal fit, anatomy, inclinations, form, size, shape, color, embrasures, contact point.

PART II

SUBJECT CODE	PAPER	SUBJECT TITLE
17MDS223	PAPER 3	Descriptive and Analysing type question

PAPER-III: Descriptive and analyzing question

18. TEACHING AND LEARNING ACTIVITIES:

18.1 LECTURES:

There shall be some didactic lectures in the specialty and in the allied fields. The departments shall encourage guest lectures in the required areas and integrated lectures by multi-disciplinary teams on selected topics, to strengthen the training programmes.

18.2. JOURNAL REVIEW:

The journal review meetings shall be held at least once a week. All trainees associate and staff associated with the post-graduate programme are expected to participate actively and enter relevant details in the logbook. The trainee shall make presentations from the allotted journals of selected articles. A model check list for the evaluation of journal review presentation is annexed at Schedule-I of these regulations.

18.3. SEMINARS:

The seminars shall be held at least twice a week in each department. All trainees are expected to participate actively and enter relevant details in logbook. A model check list for the evaluation of seminar presentation is annexed at Schedule-II of these regulations.

18.4. SYMPOSIUM:

It is recommended to hold symposium on topics covering multiple disciplines.

18.5. CLINICAL POSTINGS:

Each trainee shall work in the clinics on regular basis to acquire adequate professional skills and competency in managing various cases, A model check list for evaluation of clinical postings is annexed at Schedule-III of these regulations.

18.6. CLINICO- PATHOLOGICAL CONFERENCE:

The clinico pathological conference shall be held once a month involving the faculties of Oral Medicine and Radiology, Oral Pathology and allied clinical departments. The trainees shall be encouraged to present the clinical details, radiological and histo-pathological interpretations and participation in the discussions.

18.7. INTER-DEPARTMENT AL MEETINGS:

To encourage integration among various specialties, there shall be inter-departmental meeting chaired by the Dean with all heads of post-graduate departments at least once a month.

18.8. TEACHING SKILLS:

All the trainees shall be encouraged to take part in undergraduate teaching programmes either in the form of lectures or group discussions. A model check list for evaluation of teaching skills is annexed at Schedule-IV of these regulations.

18.9. DENTAL EDUCATION PROGRAMMES:

Each department shall organize dental education programmes on regular basis involving other institutions. The trainees shall also be encouraged to attend such programmes conducted outside their university or institute.

18.10. CONFERENCES / WORKSHOPS / ADVANCED COURSES:

The trainees shall be encouraged to attend conference/workshops/advanced courses and also to present at least two scientific papers and two posters at State / national level specialty and allied conferences / conventions during the training period.

18.11. ROTATION AND POSTING IN OTHER DEPARTMENTS:

To bring in more integration among the specialties and allied fields, each department shall workout a programme to rotate the trainees in related disciplines.

18.12. DISSERTATION / THESIS:

A model check list for evaluation of dissertation presentation and continuous evaluation of dissertation work by guide / co-guide is annexed at Schedule-V of these regulations. A model overall assessment sheet to be filled by all the trainees undergoing post-graduate course is annexed at Schedule-VI of these regulations.

18.13. MINIMUM REQUIRED QUOTA:

All the students of the specialty departments shall complete the minimum quota for the teaching and learning activities, as follows:—

- (a) Journal Clubs : 5 in a year
- (b) Seminars : 5 in a year
- (c) Clinical Case Presentations : 4 in a year
- (d) Lectures taken for undergraduates: 1 in a year
- (e) Scientific Paper / Poster Presentations In State / : National Level Conferences : 4 papers/posters during three years of training workshop period

- (f) Clinico Pathological Conferences : 2 presentations during three years of training period
- (g) Scientific Publications (optional): one publication in any indexed scientific journal.
- (h) Submission of Synopsis: one synopsis within six months from the date of commencement of the course.
- (i) Submission of Dissertation months : one dissertation within six months before appearing for the university examination
- (j) Submission of Library Dissertation :one dissertation within eighteen months from the date of commencement of the course

18.14. CLINICAL QUOTA:

SKILLS:

I. Complete dentures

1. Arrangements in adjustable articulator for
 - a. Class I
 - b. Class II
 - c. Class III
2. Various face bow transfer to adjustable articulators
3. Processing of characterized anatomical denture

II. Removable partial denture

1. Design for Kennedy's Classification (Survey, block out and design)
 - a. Class I
 - b. Class II
 - c. Class III
 - d. Class IV
2. Designing of various components of RPD
3. Wax pattern on refractory cast
 - a. Class I
 - b. Class II
 - c. Class III
 - d. Class IV
4. Casting and finishing of metal frameworks
5. Acrylisation on metal frameworks for

Class I

Class III with modification

III. Fixed Partial Denture

1. Preparation in ivory teeth natural teeth
 - a. FVC for metal

- b. FVC for ceramic
 - c. Porcelain jacket crown
 - d. Acrylic jacket crown
 - e. PFM crown
 - f. 3/ 4th (canine, premolar and central)
 - g. 7/8th posterior
 - h. Proximal half crown
 - i. Inlay - Class I, II, V
 - j. Onlay - Pin ledged, pinhole
 - k. Laminates
2. Preparation of different die system
 3. Fabrication of wax pattern by drop wax build up technique
 - a. Wax in increments to produce wax coping over dies of tooth preparations on substructures
 - b. Wax additive technique
 - c. 3-unit wax pattern (maxillary and Mandibular)
 - d. Full mouth
 4. Pontic design in wax pattern
 - a. Ridge lap
 - b. Sanitary
 - c. Modified ridge lap
 - d. Modified sanitary
 - e. Spheroidal or conical
 5. Fabrication of metal framework
 - a. Full metal bridge for posterior (3 units)
 - b. Coping for anterior (3 unit)
 - c. Full metal with acrylic facing
 - d. Full metal with ceramic facing
 - e. Adhesive bridge for anterior
 - f. Coping for metal margin ceramic crown
 - g. Pin ledge crown
 6. Fabrication of crowns
 - a. All ceramic crowns with characterization
 - b. Metal ceramic crowns with characterization
 - c. Full metal crown

- d. Precious metal crown
 - e. Post and core
7. Laminates
 - a. Composites with characterization
 - b. Ceramic with characterization
 - c. Acrylic
 8. Preparation for composites
 - a. Laminates
 - b. Crown
 - c. Inlay
 - d. Onlay
 - e. Class I
 - f. Class II
 - g. Class III
 - h. Class IV
 - i. Fractured anterior tooth

IV Maxillofacial prosthesis

1. Eye
2. Ear
3. Nose
4. Face
5. Body
6. Cranial
7. Maxillectomy
8. Hemimandibulectomy
9. Finger prosthesis
10. Guiding flange
11. Obturator

V. Implant supported prosthesis

1. Step by step procedures - laboratory phase

VI. Other exercises

1. TMJ splints - stabilization appliances, maxillary and Mandibular repositioning appliances
2. Anterior disclusion appliances

3. Chrome cobalt and acrylic resin stabilization appliances
4. Modification in accommodation in irregularities in dentures
5. Occlusal splint
6. Periodontal splint
7. Precision attachments - custom made
8. Over denture coping
9. Full mouth rehabilitation (by drop wax technique, ceramic build up)
10. TMJ appliances - stabilization appliances

ESSENTIAL SKILLS

• KEY:

- O - Washes up and observes
- A - Assists a senior
- PA - Performs procedure under the direct supervision of a senior specialist
- PI - Performs independently

PROCEDURE	CATEGORY			
	O	A	PA	PI
TOOTH AND TOOTH SURFACE RESTORATION				
a) Composites- fillings, laminates, inlay, onlay	2	2	2	10
b) Ceramics-laminates, inlays, onlays	2	2	2	10
c) Glass ionomer	1	1	1	10
CROWNS				
FVC for metal	1	2	2	10
FVC for ceramic	1	2	2	10
Precious metal crown	1	-	1	5
Galvanoformed crown	-	-	1	1
3/4th crowns (premolars, canines and centrals)	1	-	-	5
7/8th posterior crown	1	-	-	5
Proximal half crown	1	-	-	5
Pin ledge and pin hole crowns	1	-	-	5
Telescopic crowns	1	-	-	5
Intra radicular crowns (central, lateral, canine, premolar and molar)	1	-	-	5
Crown as implant supported prosthesis	1	-	1	5
FIXED PARTIAL DENTURES				
Cast porcelain (3 unit)	1	-	-	5
Cast metal -precious and non precious (3 unit posterior)	1	-	-	5
Porcelain fused metal (anterior and posterior)	1	1	1	10

PROCEDURE	CATEGORY			
	O	A	PA	PI
Multiple abutment - maxillary and mandibular full arch	1	1	1	5
Incorporation of custom made and ready made precision joints or attachments	1	1	1	4
Adhesive bridge for anterior/posterior	1	-	1	10
Metal fused to resin anterior FPD	-	-	1	5
Interim provisional restorations (crowns and FPDs)	1	1	1	10
Immediate fixed partial dentures (interim)	1	-	-	5
Fixed prosthesis as a retention and rehabilitation for acquired and congenital defects - maxillofacial prosthetics	1	1	1	5
Implant supported prosthesis	1	-	1	1
Implant-tooth supported prosthesis	1	-	1	1
REMOVABLE PARTIAL DENTURES				
Provisional partial denture prosthesis	1	1	1	10
Cast removable partial denture (for Kennedy's Applegate classification with modification)	1	1	1	6
Removable bridge with precision attachments and telescopic crowns for anterior and posterior	1	1	2	4
Immediate RPD	1	1	1	5
Partial denture for medically compromised and handicapped patients	1	1	1	5
COMPLETE DENTURES				
Neurocentric occlusion and characterized prosthesis	-	-	1	5
Anatomic characterized prosthesis (by using semi adjustable articulator)	-	-	1	25
Single dentures	-	-	1	5
Overlay dentures	-	-	1	5
Interim complete dentures as a treatment prosthesis for abused denture supporting tissues	-	-	1	5
Complete denture prosthesis (for abnormal ridge relation, ridge form and ridge size)	-	-	1	5
Complete denture for patients with TMJ syndromes	-	-	1	5
Complete dentures for medically compromised and handicapped patients	-	-	1	5
GERIATRIC PATIENTS				
Tooth and tooth surface restorations, crowns, fixed prosthesis, removable prosthesis)	-	-	1	5

PROCEDURE	CATEGORY			
	O	A	PA	PI
IMPLANT SUPPORTED COMPLETE PROSTHESIS				
Implant supported complete prosthesis (maxillary and mandibular)	-	-	1	5
MAXILLOFACIAL PROSTHESIS				
Guiding flange and obturators	-	-	1	4
Speech and palatal lift prosthesis	-	-	1	4
Eye prosthesis	-	-	1	2
Ear prosthesis	-	-	1	2
Nose prosthesis	-	-	1	2
Face prosthesis	-	-	-	1
Maxillectomy	-	-	1	2
Hemimandibulectomy	-	-	1	2
Cranioplasty	-	-	1	1
Finger /hand , foot	-	-	1	1
Body prosthesis	-	-	1	1
Management of burns,scars	-	-	-	1
TMJ SYNDROME MANAGEMENT				
Splints -periodontal,teeth,jaws	-	-	1	4
TMJ supportive and treatment prosthesis	-	-	1	1
Stabilization appliances for maxilla and mandible with freedom to move from IP to CRCP	-	-	-	1
In IP without the freedom to move to CRCP	-	-	-	1
Repositioning appliances,anterior disclusion	-	-	-	1
Chrome cobalt and acrylic resin stabilization appliances for modification to accommodate for the irregularities in the dentition	-	-	-	2
Occlusal adjustment and occlusal equilibrium	-	-	1	4
FULL MOUTH REHABILITATION				
Ful mouth rehabilitation - restoration of esthetics and function of stomatognathic system	-	-	1	4
INTER-DISCIPLINARY TREATMENT MODALITIES				
Inter-disciplinary management - restoration of Oro craniofacial defects for esthetics, phonation, mastication and psychological comforts	-	-	1	2
MANAGEMENT OF FAILED RESTORATION				
Tooth and tooth surface restorations	-	-	-	5
Removable prosthesis	-	-	-	10

PROCEDURE	CATEGORY			
	O	A	PA	PI
Crowns and fixed prosthesis	-	-	-	5
Maxillofacial prosthesis	-	-	-	2
Implant supported prosthesis	-	-	-	1
Occlusal rehabilitation and TMJ syndrome	-	-	-	2
Restoration failure of psychogenic origin	-	-	-	5
Restoration failure to age changes	-	-	-	2

19. RECOMMENDED LIST OF TEXTBOOKS & JOURNALS:

TEXT BOOKS:

ANATOMY

1. Gray's Anatomy – Standing Susan- 40th Edition
2. Essentials of Human Anatomy, Vol.3 – AK Dutta – 3rd Edition
3. Clinical Anatomy for Students Problem Solving Approach – Neeta Kulkarni – 2nd Edition
4. Last Anatomy Regional & Applied Anatomy – Chummy Sinnatamby – 11th Edition
5. Clinical Anatomy for Medical Students – Snell Richard – 8th Edition
6. Medical Embryology – Jan Langman – 10th Edition
7. BD Chaurasia's Human Anatomy Regional and Applied Dissection and Clinical: Vol. 3: Head-Neck Brain – 6th edition

PHYSIOLOGY

1. Medical Physiology – InduKhurana – Elsevier
2. Textbook of Medical Physiology – Guyton & Hall – Elsevier
3. Review of Medical Physiology – William F. Ganong – Alange Publishers

PATHOLOGY

1. Pathology: Basics of Disease – Robbins & Cotran – Elsevier.
2. Textbook of Pathology – Boyd's – 10th Edition
3. Textbook of Pathology – AK Mandal, SharamanaChoudhury – Avichal Publishing Co
4. Pathology for Dental Students – GeetikaKhanna – Elsevier
5. Essential pathology for Dental Students – Harshmohan – Jaypee Publishers – 2nd Edition

NUTRITION

1. Textbook of Nutrition – Monica Sharma – CBS Publishers
2. Textbook of Nutrition – DarshanSohi – Vikas& Co Publishing House

BIOSTATISTICS & RESEARCH METHODOLOGY

1. Introduction to Biostatistics and Research Methods - J. Richard, SundarRao
2. Methods of Biostatistics – BaskarRao - Paras Medical Publisher
3. Biostatistics: A Manual of Statistical Methods for Use in Health, Nutrition and Anthropology - K. VishweswaraRao – Jaypee Publishers – 2nd Edition

DENTAL MATERIALS

1. Dental Materials and Manipulation - Craig
2. Phillips Science of Dental Materials – Skinner – 9th Edition
3. Phillips Science of Dental Materials – Kenneth Anusavice– 12th Edition
4. Phillips' Science of Dental Materials:(South Asia Edition) – ArvindShenoy, K Chandrasekaran Nair- 1st Edition
5. Applied Dental Materials – McCabe
6. Dental Material Science – P K Basu
7. Dental Materials and Their Uses – O'brien
8. Materials in Dentistry – Ferracane
9. Dental Materials- 1997 Review
10. Introduction to Dental Materials – Richard Van Noort – 4th Edition
11. Notes on Dental Materials – E.C. Coombe

COMPLETE DENTURES

1. Essentials of Complete Denture Prosthodontics – Third Edition -Sheldon Winkler
2. Prosthodontic Treatment for Edentulous Patients – Twelfth Edition – ZarbBolender
3. Complete Denture Prosthodontics – John J Sharry
4. Dental Lab Procedures – Complete Dentures – Volume I – Rudd and Morrow
5. Complete Prosthodontics – Problems, Diagnosis and Management – Alan A Grant, J R Heath and J Fraser Mccord
6. Syllabus of Complete Denture –Heartwell-3ed
7. Complete Dentures - Swenson 4ed
8. Dental Prosthesis – Complete Dentures- Sears
9. Principles of Denture Prosthesis – Wilfred Fis
10. The Complete Denture Clinical Pathway – Mac Entee
11. Removable Complete Dentures – Phillips

12. Prosthodontic Treatment of Edentulous Patients – Baskar and Davenport – 4th Edition
13. Clinical Dental Prostheses – Fenn
14. A Primer on Complete Dentures – K. Chandrasekaran Nair

REMOVABLE PARTIAL PROSTHODONTICS

1. McCracken's Removable Partial Prosthodontics – 13th Edition
2. Clinical Removable Partial Prosthodontics – Stewart, Rudd, Kuebker – Third Edition
3. Dental Lab Procedures – Removable Partial Dentures – Volume II – Rudd and Morrow
4. Advanced Removable Partial Dentures – James S Brudvik
5. Partial Dentures – John Osborne
6. Handbook on Cast Partial Dentures
7. Removable Denture Construction – Bates
8. RPD – Davenport
9. An Introduction to Removable Denture Prosthodontics – Grant
10. Essentials of Removable Partial Denture Prosthesis – O C Applegate

FIXED PARTIAL PROSTHODONTICS

1. Fundamentals of Fixed Prosthodontics - 3rd Edition – Shillingburg
2. Contemporary Fixed Prosthodontics – 4th Edition – Rosenstiel
3. Tylman's – Theory and Practice of Fixed Prosthodontics – 8th Edition – Malone William
4. Dental Lab Procedures – Fixed Partial Dentures – Volume III – Rudd And Morrow
5. Fundamentals of Fixed Prosthodontics – Guide to Occlusal Waxing - 3rd Edition – Schillingburg
6. Introduction to Metal Ceramic Technology – Patrick Naylor

IMPLANTOLOGY

1. Contemporary Implant Dentistry - Carl E Misch – Third Edition
2. Babbush – Dental Implants: The Art and Science - 2nd Edition
3. Dental Implant Prosthetics - Carl E Misch – 2nd Edition
4. Tissue Integrated Prosthesis – Branemark
5. Fundamentals of Implant Dentistry – Vol. I – John Beumer.
6. Fundamentals of Implant Dentistry – Vol. II – John Beumer

ESTHETIC DENTISTRY

1. Book on Esthetic Dentistry – Rufenach
2. Textbook on Esthetic Dentistry – RatnadeepPatil
3. Esthetic Dentistry and Ceramic Restorations – Touati
4. The Art of the Smile: Integrating Prosthodontics, Orthodontics, Periodontics, Dental Technology, and Plastic Surgery in Esthetic Dental Treatment - Romano, Rafi.
5. Esthetics in Dentistry, Volume 1 – Goldstein.
6. Esthetics in Dentistry: Esthetic problems of individual teeth, missing teeth, malocclusion, special populations - Volume 2 – Goldstein.

MAXILLOFACIAL PROSTHETICS

1. Clinical Maxillofacial Prosthetics - Thomas D Taylor .
2. Maxillofacial Rehabilitation –Prosthodontic and Surgical Considerations – Beumer.
3. Maxillofacial Prosthesis - Chalian.
4. Maxillofacial Prosthetics – Arthur O Rahn.

OCCCLUSION

1. Management of TMD and Occlusion – Okeson- 6th Edition.
2. Evaluation, Diagnosis and Treatment of Occlusal Problems – 2nd Edition – Dawson.
3. Occlusion – 3rd Edition – Ash and Ramfjord.
4. Oral and Maxillofacial Surgery – TMD - Raymond J Fones.
5. A Clinical Approach to TMJ Disorder –J M Gray.
6. Occlusion – Davis and Gray

MISCELLANEOUS

1. Saliva and Oral Health – W B Edgar
2. Periodontal and Prosthetic Management of Advanced Cases – Rosenberg
3. Evidence Based Medicine – Sackett
4. Restorative Dentistry – Jacobsen
5. Planning a Thesis – Some Strategy and Tactics – Thomas A Hill
6. Medical Education
7. Biomechanics in Clinical Dentistry – Caputo

JOURNALS :

1. Journal Of Prosthodontics
2. International Journal Of Prosthodontics
3. Journal Of Prosthetic Dentistry

4. European Journal Of Prosthodontics And Restorative Dentistry
5. Journal Of Esthetic And Restorative Dentistry
6. International Journal Of Esthetic Dentistry
7. Journal Of Oral Rehabilitation
8. Journal Of Implant Dentistry
9. Journal Of Clinical Oral Implant Research
10. Journal Of Oral Implantology
11. Dental Material
12. Cleft-Palate Craniofacial Journa
13. Journal Of Dental Research
14. Dental Clinics Of North America
15. British Dental Journal
16. Quintessence International
17. Journal Of American Dental Association
18. Trends In Prosthodontics & Dental Implantology
19. International Journal Of Oral And Clinical Implantology& Clinical Research
20. The Journal Of Indian Prosthodontic Society
21. International Journal Of Prosthodontic And Restorative Dentistry
22. Dental Technician
23. Indian Journal Of Dental Research
24. The Journal Of Clinical Dentistry

20.CHECKLISTS AND ANNEXURES

CHECKLISTS AND LOGBOOKS

CHECKLIST-1

MODEL CHECK LIST FOR EVALUATION OF JOURNAL REVIEW RESENTATIONS

Name of the Trainee:

Date:

Name of the Faculty / Observer:

Sl. No	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Article chosen was					
2.	Extent of understanding of scope & objectives of the paper by the candidate					
3.	Whether cross-references have been consulted					
4.	Whether other relevant publications consulted					
5.	Ability to respond to questions on the paper/ subject					
6.	Audio - Visual aids used					
7.	Ability to discuss the paper					
8.	Clarity of presentation					
9.	Any other observation					
	Total Score					

CHECKLIST-2
MODEL CHECK LIST FOR EVALUATION OF SEMINAR PRESENTATIONS

Name of the Trainee:

Date:

Name of the Faculty / Observer:

Sl No.	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1	Whether other relevant publications consulted					
2	Whether cross - references have been consulted					
3	Completeness of Preparation					
4	Clarity of Presentation					
5	Understanding of subject					
6	Ability to answer the questions					
7	Time scheduling					
8	Appropriate use of Audio -Visual aids					
9	Overall performance					
10	Any other observation					
Total score						

CHECKLIST-3
MODEL CHECK LIST FOR EVALUATION OF CLINICAL WORK IN OPD

Name of the Trainee:

Date:

Name of the Unit Head:

SI. No.	Items for observation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Regularity of attendance					
2.	Punctuality					
3.	Interaction with colleagues and supportive staff					
4.	Maintenance of case records					
5.	Presentation of cases					
6.	Investigations work -up					
7.	Chair - side manners					
8.	Rapport with patients					
9.	Overall quality of clinical work					
	Total score					

Please use a separate sheet for each faculty member

CHECKLIST - 4
EVALUATION FORM FOR CLINICAL CASE PRESENTATION

Name of the Trainee:

Date:

Name of the faculty / Observer:

Sl. No	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Completeness of history					
2.	Whether all relevant points elicited					
3.	Clarity of presentation					
4.	Logical order					
5.	Mentioned all positive and negative					
6.	Accuracy of general physical examination					
7.	Investigations required Complete list					
8.	Relevant order Interpretation of Investigations					
	Ability to discuss differential diagnosis.					
9.	Ability to discuss diagnosis.					
10.	Others					
	Grand Total					

Please use a separate sheet for each faculty member

CHECKLIST-5
MODEL CHECK LIST FOR EVALUATION OF TEACHING SKILL

Name of the Trainee:

Date:

Name of the faculty Observer:

SI. No.		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 / or illustrations		
6.	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 speaker with his audience		
12.	Effectiveness of the talk		
13.	Uses AV aids appropriately		

Please use a separate sheet for each faculty member

CHECKLIST-6
MODEL CHECKLIST FOR DISSERTATION PRESENTATION

Name of the Trainee:

Date:

Name of the faculty / Observer:

Sl. No.	Prints to be considered	Poor 0	Below 1	Average 2	Good 3	Very 4
1.	Interest show in selecting topic					
2.	Appropriate review					
3.	Discussion with guide and other faculty					
4.	Quality of protocol					
5.	Preparation of Proforma					
	Total Score					

CHECKLIST-7
CONTINUOUS EVALUATION OF DISSERTATION WORK BY GUIDE/CO-GUIDE

Name of the Trainee:

Date :

Name of the Faculty/Observer:

Sl. No.	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Periodic consultation with guide / co- guide					
2.	Regular collection of case material					
3.	Depth of Analysis / Discussion					
4.	Department presentation of findings					
5.	Quality of final output					
6.	Others					
	Total score					

CHECKLIST - 8
OVERALL ASSESSMENT SHEET

Name of the College:

Date:

Check List No.	PARTICULARS	A	B	C	D	E	F	G	H	I
1.	Journal Review Presentation									
2.	Seminars									
3.	Clinical work in wards									
4-	Clinical presentation									
5.	Teaching skill practice									
TOTAL										

Signature of HOD

Signature of Dean

The above overall assessment sheet used along with the logbook should form the basis for certifying satisfactory completion of course of study, in addition to the attendance requirement.

Key:

Mean score: Is the sum of all the scores of checklists 1 to 7 **A**,

B,.....: Name of trainees

LOG BOOK-Table 1
Academic activities attended

Name:
Admission Year:
College:

Date	Type of activity - Specify Seminar, Journal club, Presentation, UG teaching	Particulars

LOG BOOK-TABLE 2
ACADEMIC PRESENTATIONS MADE BY THE TRAINEE

Name :
Admission Year :
College :

Date	Topic	Type of activity - Specify Seminar, Journal club, Presentation, UG teaching

**LOG BOOK-TABLE 3
DIAGNOSTIC AND OPERATIVE PROCEDURES PERFORMED**

Name :
Admission Year :
College :

Date	Name	OP No.	Procedure	Category O, A, PA, PI

Key:

- O - WASHED UP AND OBSERVED - INITIAL 6 MONTHS OF ADMISSION**
- A - ASSISTED A MORE SENIOR SURGEON -1 YEAR MDS**
- PA - PERFORMED PROCEDURE UNDER THE DIRECT SUPERVISION OF A SENIOR SURGEON - II YEAR MDS**
- PI - PERFORMED INDEPENDENTLY - III YEAR MDS**