



**YENEPOYA**

(DEEMED TO BE UNIVERSITY)

Recognized under Sec 3(A) of the UGC Act 1956

Accredited by NAAC with 'A' Grade

## **YENEPOYA (DEEMED TO BE UNIVERSITY)**

**Deralakatte, Mangaluru -575018**

### **REGULATIONS AND CURRICULUM GOVERNING POSTGRADUATE PROGRAM (MDS) IN CONSERVATIVE DENTISTRY AND ENDODONTICS**

**(REVISED CURRICULUM – AMENDED UP TO 2018)**

**ATTESTED**

**Dr.Gangadhara Somayaji K.S.  
Registrar  
Yenepoya(Deemed to be University)  
University Road, Deralakatte  
Mangalore- 575 018, Karnataka**

**NOTIFICATION – 07/33-ACM/2018 Dtd. 19.11.2018**

Sub: Incorporation of new course content/amendment to the syllabus/teaching & evaluation methodology in Dental PG curriculum

Ref: Resolution of the Academic Council at its 33<sup>rd</sup> meeting held on 26.10.2018, vide Agenda – 18

\*\*\*\*\*

The Academic Council at its 33<sup>rd</sup> meeting held on 26.10.2018 and subsequently the 44<sup>th</sup> Board of Management have approved the recommendation of the Faculty of Dentistry for incorporating new course content/amendment to the syllabus/teaching & evaluation methodology to the P.G. curriculum of Oral Medicine & Radiology, Conservative Dentistry and Oral & Maxillofacial Surgery as follows to be implemented for the admission batch 2018-19 onwards:-

**Oral Medicine & Radiology**

<b>Existing</b>	<b>Now Amended</b>
Syllabus-Research Methodology and Biostatistics.	<ul style="list-style-type: none"> <li>➤ <b>RESEARCH METHODOLOGY</b> –Definition, types of research, designing written protocol for research, objectivity in methodology, quantification, records and analysis.</li> <li>➤ <b>Biostatistics</b>-Introduction, applications, uses and limitations of bio-statistics in dentistry, collection of data, presentation of data, measures of central tendency, measures of dispersion, methods of summarizing, parametric and non parametric tests of significance, correlation and regression multivariate analysis, sampling and sampling techniques-types, errors, bias, trial and calibration.</li> </ul>
Patterns and distribution of questions on various subjects -Not mentioned.	<p>I MDS Basic science exam the question paper format with equal distribution of weight age to all subjects. The pattern of distribution of questions will be as follows:-</p> <p><b>Distribution of question</b></p> <ul style="list-style-type: none"> <li>• Two questions from anatomy &amp; Embryology</li> <li>• Two questions from physiology</li> <li>• Two questions from pathology</li> <li>• One question from bio-chemistry</li> <li>• One question from Microbiology</li> <li>• One question from Pharmacology</li> <li>• One question from Research methodology and bio-statistics.</li> </ul>

**Dept. of Conservative Dentistry:**

<b>Existing</b>	<b>Proposed Amendment</b>
<p><b>Existing pattern of University Examination:</b>                      Post/Core Case Presentation, Tooth Preparation for Post / Core, Fabrication of the Wax Pattern, Casting of the wax Pattern, Cementation of the Casting, Gingival Tissue Retraction, Rubber Base Impression for the Jacket Crown <b>AND</b> Post/Core case presentation and Approval. Selection of fiber Post, Cementation, Composite core build up for PFM crown, gingival retraction, Rubber base impression, Die preparation, wax pattern for the coping on the die, casting of the coping for PFM and try-in on the patient and temporary crown cementation.</p>	<p>Post/Core Case Presentation, Tooth Preparation for Post / Core, Fabrication of the Wax Pattern, Casting of the wax Pattern, Cementation of the Casting, Gingival Tissue Retraction, Rubber Base Impression for the Jacket Crown.</p> <p style="text-align: center;"><b>OR</b></p> <p>Post/Core case presentation and Approval. Selection of fiber Post, Cementation, Composite core build up for PFM crown, gingival retraction, Rubber base impression, Die preparation, wax pattern for the coping on the die, casting of the coping for PFM and try-in on the patient and temporary crown cementation.</p>

**Dept. of Oral Surgery & Maxillofacial Surgery:**

**Teaching and learning methods**

<b>Existing</b>	<b>Proposed Amendment</b>
Inter-college PG interactive programmes are not being conducted	to organize among local college PG interactive programmes / workshops once in 3 months
i)At present there is no TMJ clinic in the dental college	TMJ clinic comprising of specialist from the Departments of Oral Medicine & Radiology, Oral & Maxillofacial Surgery, Orthodontics and Prosthodontics. This clinic is proposed to be located in the Dept. of Oral Medicine & Radiology.
ii)There is no TMJ Arthroscopy in the Dept. of Oral & Maxillofacial Surgery	Recommended to have TMJ Arthroscopy in the Dept. of Oral & Maxillofacial Surgery

The approved amendments may be incorporated in the respective PG curriculum and the amended copy may be provided to this office for filing.

  
**REGISTRAR**  
 mj 6/12

To:

The Principal - YDC

Copy to:

1. Controller of Examinations
2. Professor & HoD, Oral & Maxillofacial Surgery
3. Professor & HoD, Conservative Dentistry
4. Professor & HoD, Oral Medicine & Radiology
5. File copy



Ref. No.YU/REG/ACA/ACM-30/2017

Date: 04.11.2017

**NOTIFICATION**

Sub: Implementation of DCI Regulations 2017 – MDS reg.:-

Ref: (i) Proceedings of the 30<sup>th</sup> Academic Council meeting held on 20.10.2017  
(ii) Gazette Notification Govt. of India dated 5<sup>th</sup> September 2017 on DCI Regulations 2017

**With reference and Subject cited above, Yenepoya University based on the Academic Council proceedings is pleased to implement the DCI regulation 2017 for all the 9 MDS Programs offered with effect from 2018-19 academic year onwards.**

*B.T. N. [Signature]*  
**REGISTRAR**  
Registrar  
Yenepoya University

## Contents

<b>Sl. No.</b>	<b>Content</b>	<b>Page No.</b>
1.	Preamble	1
2.	Goals	1
3.	Objectives	1
4.	Course content	3
5.	Teaching/learning activities and monitoring learning progress	6
6.	Scheme of examination	10
7.	Assessment Performa and log books	11

## **Preamble**

**Year of starting MDS Course: 1996**

### **INTRODUCTION :**

Conservative Dentistry attempts to provide the means and methods to achieve an acceptable substitute for the lost tooth structure

Endodontics refers to the ways and means to functionally restore a non vital tooth

### **Vision**

To provide access to quality higher education, ensuring equity, to create a vibrant knowledge capital and to create inspiring leaders of tomorrow who can take this country to the forefront of the developed nations.

### **Mission**

- To achieve academic excellence and global competencies among students.
- To create an environment for the generation of new knowledge through meaningful research, adopting latest methods of pedagogy and incorporating modern principles of academics integrated with highest ethical standards.
- To extend the knowledge acquired and new knowledge generated for the development of the community.

### **Goals**

Increasing the life span of teeth by prevention and restoration” is the main motto of the Department of Conservative Dentistry & Endodontics.

### **OBJECTIVES:**

The following objectives are laid out to achieve the goals of the course. These are to be achieved by the time the candidate completes the course. These objectives may be considered under the following subtitles.

### **KNOWLEDGE:**

At the end of 36 months of training, the candidates should be able to:

- Describe etiology, pathophysiology, periapical diagnosis and management of common restorative situations, endodontic situations that will include contemporary management of dental caries, management of trauma and pulpal pathosis including periodontal situations.
- Demonstrate understanding of basic sciences as relevant to Conservative / Restorative Dentistry and Endodontics.
- Identify social, economic, environmental and emotional determinants in a given case or community and take them into account for planning and execution at individual and community level.

- Ability to master differential diagnosis and recognize conditions that may require multi-disciplinary approach or a clinical situation outside the realm of the specialty, which he or she should be able to recognize and refer to appropriate specialist.
- Update himself by self study and by attending basic and advanced courses, conferences, seminars, and workshops in the specialty of Conservative Dentistry - Endodontics - Dental Materials and Restorative Dentistry.
- Ability to teach / guide colleagues and other students.

Use information technology tools and carry out research both basic and clinical with the aim of his publishing his work and presenting the same at scientific platform.

### **SKILLS:**

- Take proper chair side history, exam the patient & perform medical & dental diagnostic procedures& order as well as perform relevant tests& interpret them to come to a reasonable diagnosis about the dental condition in general and Conservative Dentistry-Endodontics in particular. And undertake complete patient monitoring including preoperative as well as post operative care of the patient.
- Perform all levels of restorative work, surgical and nonsurgical Endodontics as well as endodontic-periodontal surgical procedures as part of multidisciplinary approach to clinical condition.
- Provide basic life saving support in emergency situations.
- Manage acute pulpal and pulpo periodontal situations.
- Have a thorough knowledge of infection control measures in the dental clinical environment and laboratories.
- Should have proper knowledge of sterilization procedures

### **Human values, Ethical Practice and Communication Abilities**

- Adopt ethical principles in all aspects of restorative and contemporaries Endodontics including non surgical and surgical Endodontics.
- Professional honesty and integrity should be top priority.
- Dental care has to be provided regardless of social status, caste, creed, or religion of the patient.
- Develop communication skills in particular to explain various options available management and obtain a true informed consent from the patient.
- Apply high moral and ethical standards while carrying on human or animal research.
- He/She shall not carry out any heroic procedures and must know his limitations in performing all aspects of restorative dentistry including Endodontics. Ask for help from colleagues or seniors when required without hesitation.
- Respect patient's rights and privileges including patient's right to information.



## **COURSE CONTENTS:**

### **PART - I:**

#### **Applied Basic Sciences:**

##### **APPLIED ANATOMY OF HEAD AND NECK**

- Development of face, paranasal sinuses and the associated structures and their anomalies, cranial and facial bones, TMJ anatomy and function, arterial and venous drainage of head and neck, muscles of face and neck including muscles of mastication and deglutition, brief consideration of structures and function of brain. Brief consideration of all cranial nerves and autonomic nervous system of head and neck. Salivary glands, Functional anatomy of mastication, deglutition and speech. Detailed anatomy of deciduous and permanent teeth, general consideration in physiology of permanent dentition, form, function, alignment, contact, occlusion.
- Internal anatomy of permanent teeth and its significance.
- Applied histology - histology of skin, oral mucosa, connective tissue, bone cartilage, blood vessels, lymphatics, nerves, tongue.

##### **ANATOMY AND DEVELOPMENT OF TEETH:**

- Enamel - development and composition, physical characteristics, chemical properties, structure.
- Age changes- clinical structure.
- Dentin- development, physical characteristics, chemical properties, structure type of dentin, innervations, age and functional changes.
- Pulp- development, histological structures, innervations, functions, regressive changes, clinical considerations.
- Periodontal ligament development, structure, function and clinical considerations.
- Salivary glands- structure, function, clinical considerations.
- Eruption of teeth.

##### **APPLIED PHYSIOLOGY:**

- Mastication, deglutition, digestion and assimilation, fluid and electrolyte balance.
- Blood composition, volume, function, blood groups, haemostasis, co-agulation, blood transfusion, circulation, heart, pulse, blood pressure, shock, respiration, control, anoxia , hypoxia, asphyxia, artificial respiration, and endocrinology - general principles of endocrine activity and disorders relating to pituitary, thyroid, parathyroid, adrenals, including pregnancy and lactation
- Physiology of saliva-composition, function, clinical significance.
- Clinical significance of vitamins, diet and nutrition-balanced diet.  
Physiology of pain, sympathetic and parasympathetic nervous system, pain pathways, physiology of pulpal pain, odontogenic and non-odontogenic pain, pain disorders - typical and atypical, biochemistry such as osmotic pressure ,electrolytic dissociation, oxidation, reduction etc. Carbohydrates, lipids and their metabolism, nucleoproteins, nucleic acid and their metabolism. Enzymes, vitamins and minerals, metabolism of inorganic elements, detoxification in the body, antimetabolites, chemistry of blood lymph and urine.

##### **PATHOLOGY**

- Inflammation, repair, degeneration, necrosis and gangrene
- Circulatory disturbances – Ischemia, Hyperemia, Edema, thrombosis, embolism, infarction, allergy and hypersensitivity reaction.
- Neoplasm – classifications of tumors, characteristics of benign and malignant tumors, spread tumors.
- Blood dyscrasias



- Developmental disturbances of oral and paraoral structures, dental caries, regressive changes of teeth, pulp, periapical pathology, pulp reaction to dental caries and dental procedures
- Bacterial, viral, mycotic infections of the oral cavity

### **MICROBIOLOGY**

- Pathways of Pulpal infection, oral flora and microorganisms associated with endodontic diseases, pathogenesis, host defense, bacterial virulence factors, healing, theory of focal infections, microbes or relevance to dentistry – strepto, staphylococci, lactobacilli, corneobacterium, actinomycetes, clostridium, neisseria, vibrio, bacteroids, fusobacterium, spirochetes, mycobacterium, virus and fungi.
- Cross-infection, infection control, infection control procedure, sterilization and disinfection.
- Immunology – antigen antibody reaction, allergy, hypersensitivity and anaphylaxis, auto immunity, grafts, viral hepatitis, HIV infections and AIDS. Identification and isolation of microorganisms from infected root canals. Culture medium and culture technique (Aerobic and anaerobic interpretation and antibiotic sensitivity test).

### **PHARMACOLOGY**

- Dosage and route of administration of drugs, action and fate of drug in the body, drug addiction, tolerance of hypersensitivity reactions
- Local anesthesia – agents and chemistry, pharmacological actions, fate and metabolism of anesthetic, ideal properties, techniques and complications
- General Anesthesia – pre-medications, neuromuscular blocking agents, induction agents, inhalation anesthesia and agents used assessment of anesthetic problems in medically compromised patients.
- Anesthetic emergencies
- Anti-histamines, Corticosteroids, chemotherapeutic and antibiotics, drug resistance, hemostasis, and hemostatic agents, anticoagulants, sympathomimetic drugs, vitamins and minerals (A, B, C, D, E, K IRON) antisialogogues, immunosuppressants, drug interactions, antiseptics, disinfectants, anti-viral agents, drugs acting on CNS.

### **BIostatISTICS**

- Introduction, basic concepts, sampling, Health information systems-collection, compilation, presentation of data. Elementary statistical methods – presentation of statistical data, statistical averages – measures of central tendency, measures of dispersion, normal distribution. Test of significance – parametric and non-parametric tests (Fisher Exact Test, Sign Test, Median Test, Mann Whitney test, Kruskal Wallis one way analysis, Friedmann two way analysis, regression analysis), Correlation and regression, Use of computers.

### **RESEARCH METHODOLOGY**

- Essential features of a protocol for research in humans
- Experimental and non-experimental study designs
- Ethical consideration of research

### **APPLIED DENTAL MATERIALS**

- Physical and mechanical properties of dental materials, biocompatibility.
- Impression materials, detailed study of various; restorative materials, restorative resin and recent advances in composite resins, bonding recent developments- tarnish and corrosion, dental amalgam, direct filling gold, casting alloys, inlay wax, die materials, investments, casting procedures, defects, dental cements for restoration and pulp protection (luting, liners, bases) cavity varnishes.
- Dental ceramics-recent advances, finishing and polishing materials.
- Dental burs - design and mechanics of cutting - other modalities of tooth preparation.
- Methods of testing biocompatibility of materials used.

## **PAPER-II:**

### **Paper –I: CONSERVATIVE DENTISTRY**

1. Examination, diagnosis and treatment plan
2. Occlusion as related to conservative dentistry, contact, contour, its significance. Separation of teeth, matrices, used in conservative dentistry
3. Dental caries- epidemiology, recent concept of etiological factors, pathophysiology, Histopathology, diagnosis, caries activity tests, prevention of dental caries and management - recent methods.
4. Hand and rotary cutting instruments, development of rotary equipment, speed ranges, hazards. .
5. Dental burs and other modalities of tooth .reparation- recent developments (air abrasions, lasers etc)
6. Infection control procedures in conservative dentistry, isolation equipments etc.
7. Direct concepts in tooth preparation for amalgam, composite, QIC and restorative techniques, failures and management.
8. Biologic response of pulp to various restorative materials and operative procedures.
9. Direct and indirect composite restorations,
10. Indirect tooth colored restorations- ceramic, inlays and onlays, veneers, crowns, recent advances in fabrication and materials, a. Tissue management
11. Impression procedures used for indirect restorations.
12. Cast metal restorations, indications, contraindications, tooth preparation for class 2 inlay, Onlay full crown restorations.  
Restorative techniques, direct and indirect methods of fabrication including materials .used for fabrication like inlay wax, investment materials and
13. Direct gold restorations.
14. Recent advances in restorative materials arid procedures.
15. Esthetics including smile design.
16. Management of non-cariou lesion.
17. Management of discolored tooth
18. Minimal intervention Dentistry.
19. Recent advances in restoration of endodontically treated teeth and grossly mutilated teeth
20. Hypersensitivity, theories, causes arid management.
21. Lasers in Conservative Dentistry
22. CAD-CAM & CAD-CIM in restorative dentistry
23. Digital imaging and its applications in restorative Dentistry.
24. Clinical Photography.

### **PAPER-III: ENDODONTICS**

1. Rationale of Endodontics.
2. Pulp and periapical pathology
3. Pathobiology of periapex.
4. Diagnostic procedure - recent advances and various aids used for diagnosis-
5. Case selection and treatment planning
6. Endodontic microbiology
7. Infection control procedures used in Kndixlonlir.fi (aseptic techniques such as rubber dam, sterilization of instruments etc.)
8. Endodontic emergencies and management.
9. Access cavity preparation - objectives and principles

10. Endodontic instruments and instrumentation - recent developments, detailed description of hand, rotary, sonic, ultra sonic etc..
11. Working length determination / cleaning and shaping of root canal system and recent development in techniques of canal preparation
12. Root canal irrigants and intra canal medicaments
13. Obturating materials, techniques and recent advances
14. Traumatic injuries and management - endodontic treatment for young permanent teeth.
15. Endodontic surgeries, recent developments in technique and devices and wound healing.
16. Endoperio interrelationship and management
17. Lasers in Endodontics.
18. Multidisciplinary approach to endodontic situation;
19. Radiology and CBCT in endodontic practice.
20. Procedural errors in Endodontics and their management.
21. Endodontics failures and retreatment.
22. Resorptions and its management.
23. Microscopes in Endodontics.
24. Single visit Endodontics, current concepts and controversies
25. Regenerative Endodontics.

**PAPER-III:** Essays(Descriptive and analyzing type questions)

**TEACHING / LEARNING ACTIVITIES:**

**Teaching/Learning Activities and Monitoring Learning Progress**

All the candidates registered for MDS will pursue the course for 3 year as full time student. During this period, each student shall take part activity in learning activities.

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. The monitoring will be done by the staff of the department based on participation of students in various teaching / learning activities using Assessment Proforma.

The number of activities attended and the topics prevented are to be recorded in log book. The log book will be periodically validated by the supervisors.

The Post Graduate is expected to complete the following at the end of:

The following is the minimum required to be completed before the candidate can be considered eligible to appear for final MDS exam.

**First Year**

- **Pre Clinical Work – Conservative and Endodontics**
  - **Preclinical work on typhodont teeth**
1. Class II amalgam cavities
    - a. Conservative preparation -03
    - b. Conventional preparation -03

2. Inlay cavity preparation on premolars and molars  
- MO, DO, MOD -02
3. Onlay preparation on molars including  
Wax pattern and casting - 02
4. Full Crown
  - a. Anterior - 02
  - b. Posterior (1 each to be processed) -02

**Pre Clinical work on natural teeth**

1. Wax Carving of all permanent teeth
2. Inlay on molars and premolars MO, DO, MOD  
Including wax pattern and casting -05
3. Amalgam cavity preparation
  - a. Conventional -02
  - b. Conservative -02
4. Complex amalgam on molar teeth -02
5. Onlay on molars including wax pattern and casting  
(1 to be processed) -02
6. Full crown premolars and molars (metal, PFM & Ceramic) -04
7. Full crown anterior – (PFM, composite & Ceramic) 03
8. Veneers anterior teeth - 02
9. Composite
  - a. Composite Filling (Class I, II, III & V) -05(each)
  - b. Inlay (Class I & II) -02
  - c. Veneer -02
  - d. Diastema Closure -02
  - e. Angle Buildups -02

**ENDODONTICS:**

1. Sectioning of all maxillary and mandibular teeth.
2. Access cavity opening and root canal therapy in relation to maxillary and mandibular permanent teeth.
3. Access cavity preparation, BMP and Obturation
  - a) Anterior(3 maxillary and 3 mandibular) -06
    - Conventional prep -02
    - Step back -02
    - Crown down -02
    - Obturation -03
  - (2 lateral compaction and 1 thermoplasticized)
  - b) Premolar -04  
(2 upper and 2 lower) obturation 1 each
6. Molar -06  
(3 upper - 2 first molars and 1 second molar,  
3 lower - 2 first molars and 1 second molar) obturation 1 each
7. Post and core preparation and fabrication in relation to anterior and posterior teeth
  - a. Anterior 10 (Cast Post 5 and prefabricated post 5)
  - b. Posterior 05 (Cast Post 2 and prefabricated post 5)
8. Removable dies -04

**Note: Technique work to be completed in the first four months**

**CLINICAL WORK;**

A	Composite restorations	30
B	GIC Restorations	30
C	Complex amalgam restorations	05
D	Composite inlay + veneers (direct and indirect <sup>^</sup> )	10
E	Ceramic jacket crowns	05
F	Post and core for anterior teeth	10
G	Bleaching vital	05
	Non vital	05
H	RCT Anterior	20
I	Endo surgery - observation and assisting	05

**Presentation of:**

- Seminars - 5 seminars by each student - should include topics in dental materials, conservative dentistry and Endodontics
- Journal clubs - 5 by each student
- Submission of synopsis at the end of 6 months
- Library assignment work
- Internal assessment - theory and clinicals.

**Second Year**

**Case discussion- 5**

1	Ceramic jacket crowns	10
2	Post and core for anterior teeth	10
3	Post and core for posterior teeth	05
4	Composite restoration	15
5	Full crown for posterior teeth	15
6	Cast gold inlay	05
7	Other special types of work such as splinting - Reattachment of fractured teeth etc.	10
8	Anterior RCT	30
9	Posterior RCT	40
10	Endo surgery performed independently	05
11	Management of endo- Perio problems	05
12	Angle build up composite	05
13	Diastema closure	05
14	Composite Veneers	05

- Under the graduate teaching program as allotted by the HOD
- Seminars – 5 by each student
- Journal Club – 5 by each student
- Dissertation work
- Prepare scientific paper and present in conference and clinical meeting
- Library assignment to be submitted 18 months after starting of the course
- Internal assessment – theory and clinical

## **Third Year**

Dissertation work to be submitted 6 months before final examination

### **Clinical Work**

- Cast Gold Inlay, Onlay, Cuspal Restorations 10
- Post and Core 20
- Molar Endodontics 50
- Endo Surgery 05
- Diastema closure 05
- Angle Build up 05
- All other types of surgeries including crown lengthening, perioesthetics, hemi sectioning, splinting, replantation

### **Presentation of:**

- 5 Seminars - 5 by each student
- 5 Journal Clubs - 5 by each student
- Under Graduate Teaching program as allotted by the HOD
- Internal assessment – theory and clinical
  
- **Live demonstrations** of various clinical cases using Dental Operative Microscope.

### **MONITORING LEARNING PROGRESS:**

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring to be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. Checklists are given in Section IV.

## **SCHEME OF EXAMINATION:**

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

**Part II: Paper-I, Paper-II & Paper –III** - 300 Marks

(100 Marks for each Paper)

The university Examination shall consist of Theory, Practical and Clinical Examination and viva-voce and Pedagogy.

- (i) Theory:  
Part I: Shall consist of one Paper  
There shall be a Theory Examination in the Basic Sciences at the end of 1<sup>st</sup> Year of course. The question papers shall be set and evaluated by the concerned Department/Specialty. 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,
- (ii) Practical and Clinical Examination:
- (iii) Viva-voce; and
- (iv) Pedagogy.

### **Part –I**

**Paper I:** Applied Basic Sciences: Applied Anatomy, Physiology including Oral Microbiology, Pharmacology, Biostatistics and Research Methodology and Applied Dental Materials.

### **Part-II**

**Paper I** : Conservative Dentistry

**Paper II** : Endodontics

**Paper III:** Essays (Descriptive and analyzing type questions)

## **B. Practical /Clinical Examination : 200 marks**

The duration of clinical and Viva Voce examination will be 2 days for a batch of 4 students. If the number of candidates exceeds 4, the programme can be extended to 3<sup>rd</sup> day.

### **Day 1**

**Clinical Exercise I - Random Case Discussion (2) 10+10Marks**  
**(Diagnosis, Treatment, Planning & Discussion)**

Cast core preparation

- (i) Tooth preparation - 20 marks
- (ii) Composite Core Build up - 10 marks
- (iii) Casting of the coping - 10 marks
- (iv) Coping Trial - 05 marks
- (v) Retraction & Elastomeric Impression – 05 marks

**OR**



### Aesthetic Post and Core

- |       |   |           |
|-------|---|-----------|
| (i)   | Post Space preparation                          | -20 marks |
| (ii)  | Fiber post cementation & composite core buildup | -10 marks |
| (iii) | Gingival retraction and impression              | -10 marks |
| (v)   | Wax pattern for metal coping                    | -05 marks |
| (vi)  | Casting and try in                              | -05 marks |

### Clinical Exercise II – 30 Marks

- (i) Tooth Preparation for Class II Inlay - 20 Marks  
(Gold or Esthetic)
- (ii) Fabrication of Indirect Pattern - 10 Marks

### Day 2

#### Clinical Exercise III

- 100 Marks

#### (Molar Endodontics)

- (i) Local Anaesthesia and Rubber Dam application – 20 marks
- (ii) Access Cavity - 20 marks
- (iii) Working Length Determination - 20 marks
- (iv) Canal Preparation - 20 marks
- (v) Master cone selection - 20 marks

### C. Viva Voce:

- 100 Marks

#### i. 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 also.

#### ii. Pedagogy Exercise: -20 Marks

A topic be given to each candidate in the beginning of clinical examination. He/She is asked to make a presentation on the topic for 8-10 minutes.

### Day 3:

Viva Voce (Continued if more than 4 students are taking examination or shortage of time on 2<sup>nd</sup> day)

## Assessment Performa and Log Books

### 1. Acquisition of Knowledge

**Journal Review Meeting (Journal Club):** The trainees should make presentation from the allotted journals of selected article at least five times in a year. The ability to do literature search, in depth study, presentation skills and use of audio-visual aids will be assessed during presentation. The assessment will be made by faculty will be made by faculty members and peer attending the meeting using Assessment Proforma I in Section II.

**Seminars:** The seminars may be held at least twice a week in each postgraduate department. All candidates are expected to participate actively and enter relevant detail in the logbook. Each candidate shall make at least five seminars presentations in each year. The topics should be assigned to the students well in advance to facilitate in depth study. The ability to do literature

search, in depth study, presentation skill and use of audio-visual aids are to be assessed using the Assessment Proforma 2 Section II.

**Symposium :** Symposium on topics covering multiple disciplines will be held periodically

**Inter Disciplinary Clinical Meeting:** The Inter Disciplinary Clinical Meeting will be held once a month, and attended by all departments. The PG Student is encouraged to present the clinical details, radiological, and histo-pathological interpretations, and participation in the discussion.

i) **Clinical skills**

Day to day work: Skills in our patient and ward work will be assessed periodically. The assessment includes candidate's sincerity and punctuality, analytical ability and communication skills (Assessment Proforma 3, Section II)

Clinical Meetings: Candidates should periodically present cases to his peers and faculty members. This is assessed using a check list (assessment Proforma 4, Section II)

ii) **Teaching skills:** All the candidates are encouraged to take part in undergraduate teaching programs, in the form of lectures or group discussions. This performance is based on assessment by the faculty members of the department and from feedback from the undergraduate students (Proforma 5, Section II)

iii) **Periodic tests:** The departments will conduct periodical tests. A preparatory exam will be held three months before the final examination. The tests include written papers, practical/clinical and viva voce.

iv) **Work Diary/ Log Book:** Every candidates will maintain a work diary and record his/her participation in the training programme conducted by the department such as journal reviews, seminars, etc., special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures.

v) **Records:** Records, log books and marks obtained in tests will be maintained by the Head of the Department.

Continuing dental education programme: The department will organize these programs or regular basis involving other institutions. The trainees shall also be encouraged to attend such programs conducted elsewhere

Conference/workshop/advanced courses: The trainee shall be encouraged not only to attend conferences/workshops/advanced courses, but also to present at least 2 papers at state, national specially meetings during their training period. Dissertation: Every candidate shall prepare

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

(Assessment Proforma 6 & 7, Section II)

**Log Book:**

The log book is a record of the important activities of the candidates during the training. Internal assessment will be based on the evaluation of the log book. The record includes academic activities as well as the presentations and procedures carried out by the candidate.

Format for the Log Book for the different activities is given in Tables 1, 2 and 3 of Section II

**EVALUATION OF JOURNAL REVIEW PRESENTATIONS.**

Name of the Trainee:

Date:

Name of the Faculty / Observer:

SI. No	Items for observation during presentation	Poor	Below Average	Average	Good	Very Good
		0	1	2	3	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					
	<b>Total Score</b>					

## EVALUATION OF SEMINAR PRESENTATIONS.

Name of the Trainee:

Date:

Name of the Faculty / Observer:

<u>Sl.No.</u>	Items for observation during presentation	Poor	Below Average	Average	Good	Very Good
		0	1	2	3	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					
	<b>Total score</b>					

## EVALUATION OF CLINICAL WORK IN OPD

Name of the Trainee:

Date:

Name of the Unit Head:

Sl. No.	Items for observation During presentation	Poor	Below Average	Average	Good	Very Good
		0	1	2	3	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

## EVALUATION FORM FOR CLINICAL CASE PRESENTATION

Name of the Trainee:

Date:

Name of the Faculty / Observer:

<u>Sl.No.</u>	Items for observation during presentation	Poor	Below Average	Average	Good	Very Good
		0	1	2	3	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					
8	Complete list					
9	Relevant order					
10	Intepretation of Investigations					
	<b>Total score</b>					

## EVALUATION OF TEACHING SKILL

Name of the Trainee:

Date:

Name of the faculty Observer:

<b>Sl. No.</b>	<b>Items for observation during presentation</b>	<b>Strong Point</b>	<b>Weak Point</b>
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		



### DISSERTATION PRESENTATION

Name of the Trainee:

Date:

Name of the faculty / Observer:

Sl.No.	Prints to be considered	Poor	Below Average	Average	Good	Very Good
		0	1	2	3	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					
	<b>Total Score</b>					

### CONTINUOUS EVALUATION OF DISSERTATION WORK BY GUIDE/CO-GUIDE

Name of the Trainee:

Date:

Name of the faculty / Observer:

Sl.No.	Prints to be considered	Poor	Below Average	Average	Good	Very Good
		0	1	2	3	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					
	<b>Total Score</b>					

## OVERALL ASSESSMENT SHEET

Name of the College:

Date:

Sl. 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									
6.										
	<b>TOTAL</b>									

Signature of HOD

Signature of Principal

**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**





# Summary of Amendments

## Scheme of examination before revision

Total theory Marks - 300

Total number of theory papers - 4

Maximum marks for each paper - 75

## Revised Scheme of examination

Theory examinations shall be held in two parts.

Part 1 and Part 2

Part 1 Shall be on Basic Sciences (one theory paper) and will be held at the end of the 1st year of the program

Part 2 Shall be on the specialty concerned 3 papers.

Each paper shall have maximum of 100 marks.

Total theory marks - 400