YENEPOYA
(DEEMED TO BE UNIVERSITY)

REGULATIONS AND CURRICULUM GOVERNING
MDS PROGRAM CONSERVATIVE DENTISTRY & ENDODONTICS
(Academic year from which the curriculum is implemented/ revised/ amended)

Name of the Constituent Unit/Centre: Yenepoya Dental College



YENEPOYA
(DEEMED TO BE UNIVERSITY)

Deralakatte, Mangalore, Karnataka.

Notifications page(2019 MDS DCI regulation)

DENTAL COUNCIL OF INDIA
NOTIFICATION

New Delhi, the 26th August, 2019

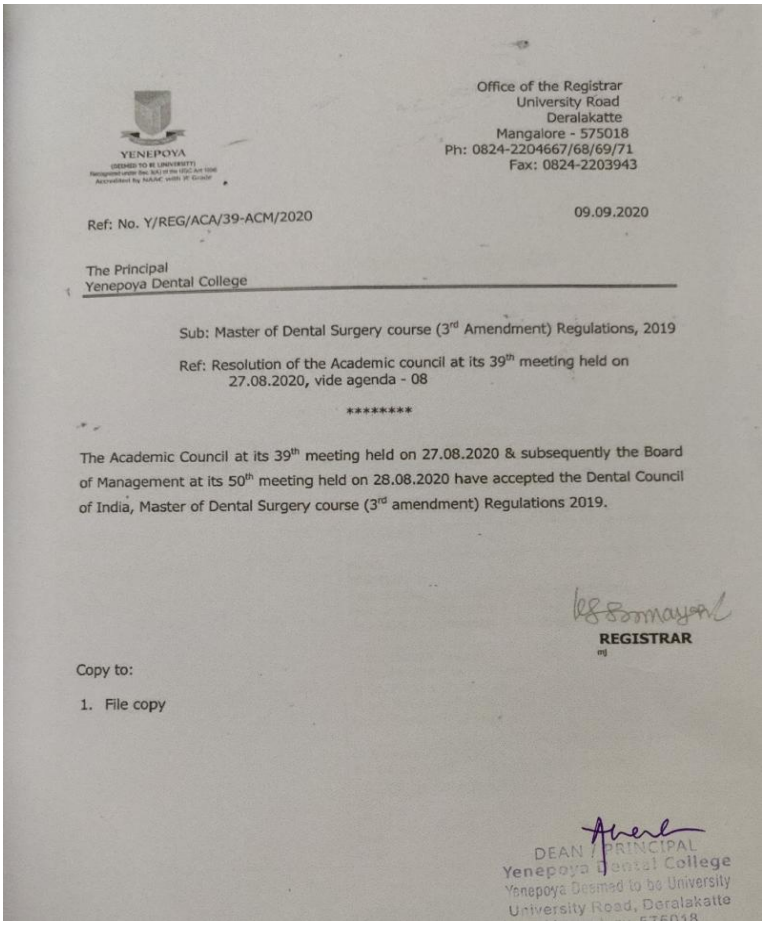
No. DE-87(3)-2019.—In exercise of the powers conferred by Section 20 of the Dentists Act, 1948, the Dental Council of India, with the previous sanction of the Central Government, hereby makes the following Amendment to the Principle Dental Council of India, Master of Dental Surgery Course Regulations, 2017, published in Part III, Section 4 of the Gazette of India, Extraordinary, dated 05th September, 2017 namely:-

1. Short title and Commencement:-
   (i) These Regulations may be called the Dental Council of India, Master of Dental Surgery Course (3rd Amendment) Regulations, 2019.
   (ii) They shall come into force with effect from the date of their publication in the Official Gazette.
2. In the "Dental Council of India, Master of Dental Surgery Course Regulations, 2017", in Part VI after Regulation 24(ix), a new regulation 24(x) shall be inserted as under:-
   "24(x) The detailed syllabus for all the specialities is annexed as SCHEDULE-IX to these regulations."

Dr. SABYASACHI SAHA, Secy.
[Advt-III/4/Exty./188/19]

Foot Note: The Principle Regulation namely, "Dental Council of India, Master of Dental Surgery Course Regulations, 2017" was published in Part III, Section, Section (4) of the Gazette of India vide Notification dated the 5th September, 2017 and amended vide notification dated 15.03.2018, 18.09.2018.

NOTIFICATION FROM THE UNIVERSITY



YENEPOYA

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Ref: No. Y/REG/ACA/39-ACM/2020

09.09.2020

The Principal
Yenepoya Dental College

Sub: Master of Dental Surgery course (3rd Amendment) Regulations, 2019

Ref: Resolution of the Academic council at its 39th meeting held on 27.08.2020, vide agenda - 08

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The Academic Council at its 39th meeting held on 27.08.2020 & subsequently the Board of Management at its 50th meeting held on 28.08.2020 have accepted the Dental Council of India, Master of Dental Surgery course (3rd amendment) Regulations 2019.

REGISTRAR

Copy to:

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DEAN / PRINCIPAL
Yenepoya Dental College
Yenepoya Deemed to be University
University Road, Deralakatte

YENEPOYA
(DEEMED TO BE UNIVERSITY)

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YENEPOYA
(DEEMED TO BE UNIVERSITY)

1. Preamble

Year of starting MDS Course: 1996

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.

2. Eligibility for admission

BDS + 1 Year Compulsory Intership

3. Duration of the program

3 Years

4. Maximum period for completion of the program

5. Aim of the Program

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

6. Objectives/Outcomes of the program (Knowledge/Skill/Attitude/Communication)

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.

- **Program Outcomes**
- **Program Specific Outcomes**

MASTER OF DENTAL SURGERY – CONSERVATIVE DENTISTRY & ENDODONTICS

PO1	To Understand and deal with dental caries and its management.
PO2	To understand and deal with non caries lesion and its management.
PO3	To address the esthetic needs of patients as an integral part of comprehensive dental care.
PO4	To understand and deal with diagnosis and treatment planning in advanced endodontics and surgical endodontics.
PO5	To gain knowledge of all materials used in Conservative Dentistry and Endodontics
PO6	Understand general principles of Dental education (use of appropriate teaching techniques and resources).
PO7	Use the library facilities (Literature database using computer, CD ROM, internet search and any other available newer techniques).
PO8	Teach effectively the basic diagnostic and treatment procedures in conservative dentistry and endodontics to undergraduate students.
PO9	Acquire skills in conducting collaborative research in the field of conservative dentistry and endodontics with other dental specialities.
PO10	Professional discipline honesty and integrity should be the top priority.
PO11	Function as a member of a teaching or research team.

POSTGRADUATE PROGRAM

MASTER OF DENTAL SURGERY – CONSERVATIVE DENTISTRY & ENDODONTICS

A. Cognitive Domain

1. 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.
2. Demonstrate understanding of basic sciences as relevant to Conservative / Restorative Dentistry and Endodontics.
3. 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.
4. 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.
5. 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.
6. Ability to teach / guide colleagues and other students.
7. 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.

B. Psychomotor Domain

1. 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.
2. 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.
3. Provide basic life saving support in emergency situations.
4. Manage acute pulpal and pulpo periodontal situations.

5. Have a thorough knowledge of infection control measures in the dental clinical environment and laboratories.
6. Should have proper knowledge of sterilization procedures

C. Affective domain

1. Adopt ethical principles in all aspects of restorative and contemporaries Endodontics including non surgical and surgical Endodontics.
2. Professional honesty and integrity should be top priority.
3. Dental care has to be provided regardless of social status, caste, creed, or religion of the patient.
4. Develop communication skills in particular to explain various options available management and obtain a true informed consent from the patient.
5. Apply high moral and ethical standards while carrying on human or animal research.
6. 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.
7. Respect patient's rights and privileges including patient's right to information.

7. Attendance

80%

8. Syllabus / 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, cornyebacterium, 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, imunosuppressants, 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 Extract Test, Sign Test, Median Test, Mann Whiteney test, Krusical 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-carious 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)

- Course Outcomes
- Course Specific Outcomes

9. Teaching - Learning methods course-wise

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, -04
PFM & Ceramic)
7. Full crown anterior – (PFM, composite & 03
Ceramic)
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^	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.

10.Scheme of Examination

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 1st 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 3rd day.

- Internal Assessment (Frequency, Pattern-Theory, and Practical)
- University Examination (Pattern-Theory, and Practical)
- Departmental examination, if any (Ability Enhancement Courses/ Value Added Courses)

11. **Eligibility to appear for University Examination** :

Attendance 80%

MDS Part I University Examination

Thesis, Library Dissertation, All Presentations, Clinical work, Presentation in Conferences

12. Logbook/Portfolio (if applicable)

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 Performa 3, Section II)

Clinical Meetings: Candidates should periodically present cases to his peers and faculty members.

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.

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.

- **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.

13.Recommended books (In Vancouver style)

Text Books Of Endodontics

Sl. No	Name of the book	Author
1.	Endodontics 5th Edition	J.I.Ingle
2.	Hartys Endo Clinical Practice 4th Edition	T.R.PIH Ford
3.	Rationale of RCT	J.M. Worfart
4.	Pathways of Pulp (3 volumes)	Stephen Cohen
5.	Text Book of Endodontics	Usha Dabas

6.	Endodontics in Clinical Practice 5th Edition	Harty
7.	Colour Atlas of Dental Medicine Endodontology	Klau
8.	Endodontics 6th Edition	J.I.Ingle
9.	Endodontics 11th Edition	Grossman
10.	Endodontics 11th Edition	Grossman
11.	Endodontics 3rd Edition	Nichols
12.	Endodontics Topics	Photocopy of journal vol.14 July 2006
13.	Advanced Endodontics	Nageswar Rao
14.	Textbook of Endodontics 2nd Edition	Nisha Garg & Amit Garg
15.	Text book of Endodontics	Dr. Suresh Chandra
16.	Endodontic Therapy 5th Edition	Weine
17.	Endodontics 12th Edition	Grossman
18.	RCT Practice	John M Whitworth
19.	Text Book of Endodontics 1st Edition	Mithra N Hegde
20.	Treatment of Endodontic Infections	Dr. Jose F Siqueira J.R
21.	Ingle's Endodontics 3th Editions	Dr. Ingle, Dr. Bakland, Dr. Baumgartner
22.	Endodontics Principles and Practice 4th Edition	Dr. Torabinejad Dr. Walton
23.	Endodontology	Michael A. Baumann, Rudolf Beer
24.	Cohen's Pathways of the Pulp – 10th Edition	Keneth M. Hargreaves, Stephen Cohen
25.	Endodontics current Concepts & Practice	Ramya Raghu, Raghu
26.	Endodontics current Concepts & Practice	Ramya Raghu, Raghu
27.	Text Book of Endodontics	Dr. Mithra Hegde
28.	Principles & Practice Endodontics 3rd Edition	Dr. Walton Dr. Torabinejad
29.	Textbook of Endodontics 3rd Edition	Nisha Garg & Amit Garg
30.	Pathways of Pulp(First South Asia Editon)	Stephen Cohen
31.	Tex Book of Endodontics	Dr. Aishwarya Kuashik
32.	Tex Book of Endodontics	Dr. Aishwarya Kuashik

33.	Text Book of Preventive Dentistry & Dental Statistics	Dr. Pankaj Goel
34.	Text Book of Preventive Dentistry & Dental Statistics	Dr. Pankaj Goel
35.	Endodontics – Principles & Practice	Aravind Shenoy, Kundabala Mala
36.	Pathways of Pulp(First South Asia Editon)	Stephen Cohen
37.	Text Book of Endodontics	Dr. Mithra Hegde
38.	Tex Book of Endodontics	Dr. Aishwarya Kuashik
39.	Text Book of Endodontics 5th Edition	Nisha Garg, Amit Garg
40.	Endodontics Principles and Practice	Mahmoud Torabinejad Ashraf F. Fouad Shahrokh Shabahang
41.	Text Book of Endodontics 4th Edition	Nisha Garg, Amit Garg

Text Books Of Operative Dentistry

Sl. No	Name of the book	Author
1.	Operative Dentistry 4th Edition	Sturdevent
2.	Operative Dentistry	Marzouk
3.	Pickards Manual of Operative Dentistry	A.M.Kid
4.	Text Book of Operative Dentistry	Vimal Sikri
5.	Fundamentals of Operative Dentistry 2nd Edition	J.B.Summit
6.	Pre Clinical Conservative Dentistry	K.S.Karthikeyan
7.	Practical Conservative Dentistry	Manish Choudhari
8.	Text Book of Operative Dentistry	Sathish Chandra
9.	Text Book of Conservative Dentistry	Usha Dabas
10.	Operative Dentistry 3rd Edition(2 volumes)	Charbenau
11.	Operative Dentistry 3rd Edition	Sturdevent
12.	Operative Dentistry 1st Edition	Marzouk
13.	Operative Dentistry 2nd Edition (2 volumes)	Sturdevant (2)
14.	Clinical Operative Dentistry	Ramya Raghu
15.	Text Book of Operative Dentistry 2nd Edition	Nisha Garg
16.	Exam Preparatory Manual	Ruche Gupta
17.	Text Book of Operative dentistry – Second Edition	Dr. Vimal K. Sikri
18.	Sturdevant's Art & Science of Operative dentistry – A South Asian Edition	Harald O Heymann, Edward J Swift Jr, Andre V Ritter
19.	Text Book of Operative Dentistry	Sumeeta Sadhu
20.	Preclinical Manual of Conservative Dentistry - First	V. Gopikrishna

	Edition	
21.	Preclinical Manual of Conservative Dentistry - Second Edition	V. Gopikrishna
22.	Text Book of Pre Clinical Conservative Dentistry – First Edition	Nisha Garg Amit Garg
23.	Text Book of Operative dentistry – Third Edition	Dr. Vimal K. Sikri
24.	Text Book of Pre Clinical Conservative Dentistry – Second Edition	Nisha Garg
25.	Text Book of Operative Dentistry	Sumeeta Sadhu

Text Books Of Dental Materials

Sl. No	Name of the book	Author
1.	Science of Dental Materials 11th Edition(2 volumes)	Anusavice
2.	Restorative Dental Material 11th Edition	Robert Craig
3.	Restorative Dental Material 11th Edition	Robert Craig
4.	Dental Materials	R.G.Craig, JM Powers
5.	Dental Materials 10th Edition	Anusavice
6.	Dental Materials 10th Edition	Anusavice
7.	Materials in Restorative Dentistry	Anand Sherwood
8.	Materials Used in Dentistry	S. Mahalaxmi
9.	Sciences of Dental Materials Clinical Applications	V. Shama Bhat, B.T Nandish

Other Text Books

Sl. No	Name of the book	Author
1.	Fundamentals of Fixed Prosthodontics	Shillingburg
2.	Essentials in Medicine 1st Edition	K.S.Shetty
3.	Essentials in Oral Medicine 1st Edition	Promod John
4.	Dental Traumatology	Louis Berman
5.	Dental Traumatology	Louis Berman
6.	Anatomy of Head & Neck 2nd Edition	A.Halim
7.	Clinical Manual for Oral Diagnosis	Beena Varma
8.	Dental Instruments A pocket Guides	Linda R. Bartolomucci
9.	Ten Cate's Oral histology 6th Edition	Antorio Nasi
10.	Medical Negligence	Dr. P.D. Shenoy
11.	Text of Prosthodontics	Deepak Nallaswamy
12.	Beneficiary –Oriented central Govt schemes for the Empowerment of women in India	Dr. Shabistan Gaffar
13.	Constitutional Rights of Women in India	Dr. Shabistan Gaffar
14.	Minority educational Profile in India	Dr. Shabistan Gaffar
15.	Dental Anatomy Physiology & Occlusion 6th Edition	Wheeler's
16.	Essentials of Surgery for Dental Students	S Devaji Rao Kirthana Rao
17.	Research Methodology Methods & Techniques – 4th Edition	C R Kothari Gaurav Garg
18.	Mahajan's methods in Biostatistics for Medical students and Research Workers	Bratati Banerajee

14. Journals (In Vancouver style)

Journal of Conservative Dentistry (JCD)

International Endodontic Journal (IEJ)

Journal of Endodontics (JEndo)

Restorative Dentistry & Endodontics (RDE)

Journal of Operative Dentistry & Endodontics

15. *Any other information (Program paths and exit options, Semesters and breaks, Progression and Carryover, etc.)*

16. Annexures

- Blueprint for Theory and Practical Examination

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

(Inlay Exercise)

(i)	Tooth Preparation for Class II Inlay (Gold or Esthetic)	- 20 Marks
(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.

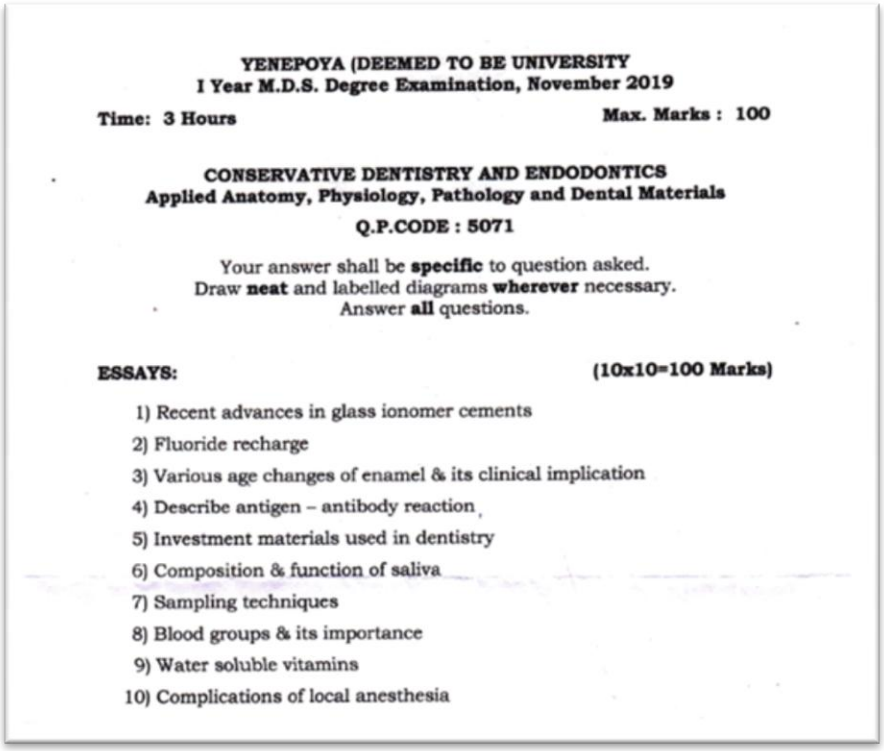
ii. Pedagogy Exercise: -20 Marks

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 2nd day)

- Question paper layout for theory examinations



YENEPOYA (DEEMED TO BE UNIVERSITY
I Year M.D.S. Degree Examination, November 2019

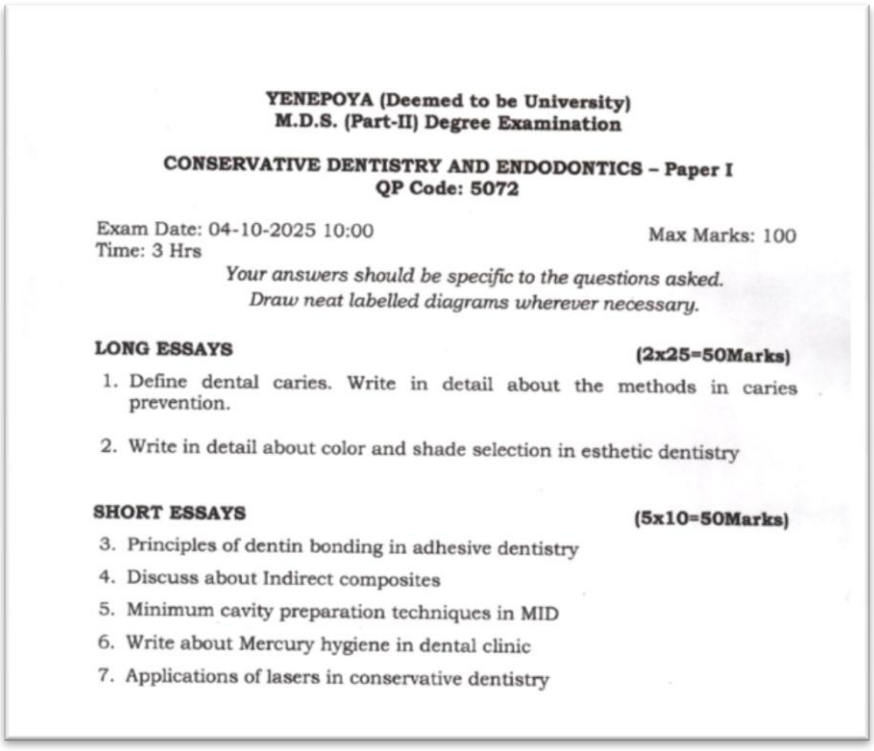
Time: 3 Hours **Max. Marks : 100**

CONSERVATIVE DENTISTRY AND ENDODONTICS
Applied Anatomy, Physiology, Pathology and Dental Materials
Q.P.CODE : 5071

Your answer shall be **specific** to question asked.
Draw **neat** and labelled diagrams **wherever** necessary.
Answer **all** questions.

ESSAYS: **(10x10=100 Marks)**

1) Recent advances in glass ionomer cements
2) Fluoride recharge
3) Various age changes of enamel & its clinical implication
4) Describe antigen – antibody reaction
5) Investment materials used in dentistry
6) Composition & function of saliva
7) Sampling techniques
8) Blood groups & its importance
9) Water soluble vitamins
10) Complications of local anesthesia



YENEPOYA (Deemed to be University)
M.D.S. (Part-II) Degree Examination

CONSERVATIVE DENTISTRY AND ENDODONTICS – Paper I
QP Code: 5072

Exam Date: 04-10-2025 10:00 Max Marks: 100
Time: 3 Hrs

Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.

LONG ESSAYS **(2x25=50Marks)**

1. Define dental caries. Write in detail about the methods in caries prevention.
2. Write in detail about color and shade selection in esthetic dentistry

SHORT ESSAYS **(5x10=50Marks)**

3. Principles of dentin bonding in adhesive dentistry
4. Discuss about Indirect composites
5. Minimum cavity preparation techniques in MID
6. Write about Mercury hygiene in dental clinic
7. Applications of lasers in conservative dentistry

YENEPOYA (Deemed to be University)
M.D.S. (Part-II) Degree Examination

CONSERVATIVE DENTISTRY AND ENDODONTICS - Paper II
QP Code: 5073

Exam Date: 06-10-2025 10:00 Max Marks: 100
Time: 3Hrs

Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.

LONG ESSAYS **(2x25=50Marks)**

1. Ultrasonics in Endodontics
2. Retreatment in Endodontics

SHORT ESSAYS **(5x10=50Marks)**

3. Different strategies of removal of separated instruments
4. Endocrowns
5. Evolution of Fibre Posts
6. Protaper Gold
7. Thermafil Plus

YENEPOYA (Deemed to be University)
M.D.S. (Part-II) Degree Examination

CONSERVATIVE DENTISTRY AND ENDODONTICS - Paper III
QP Code: 5074

Exam Date: 08-10-2025 10:00 Max Marks: 100
Time: 3 Hrs

Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.

ESSAYS (Answer **any Two**) **(2x50=100 Marks)**

1. Ni-Ti Instruments – Past, Present and Future
2. Evolution of Digital Dentistry
3. Endo-Perio Interrelationship

- Logbook template (if applicable)

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

LOG BOOK

***Table* 1**

Academic activities attended

Name:

Admission Year: College:

Date	**pe 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

- Any other Checklists/Formats for assessment

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					
	Total Score					

EVALUATION OF SEMINAR PRESENTATIONS.

Name of the Trainee: Date:

Name of the Faculty / Observer:

Sl.No.	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					
	Total score					

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					

EVALUATION FORM FOR CLINICAL CASE PRESENTATION

Name of the Trainee: Date:

Name of the Faculty / Observer:

Sl.No.	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					
	Total score					

EVALUATION OF TEACHING SKILL

Name of the Trainee: Date:

Name of the faculty Observer:

SI. No.	Items for observation during presentation	**Strong Point**	**Weak Point**
1.	Communication of the purpose of the talk		
2.	Evokes audience interest in the subject		
3.	The introduction		
4.	The sequence of ideas		
5.	The use of practical examples and / or illustrations		
6.	Specking 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:

SI.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					
	Total Score					

CONTINUOUS EVALUATION OF DISSERTATION WORK BY GUIDE/CO-GUIDE

Name of the Trainee: Date:

Name of the faculty / Observer:

SI.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					
	Total Score					

OVERALL ASSESSMENT SHEET

Name of the College: Date:

No	PARTICULARS								
		A	**B**	**C**				**G**		
1.	Journal Review Presentation									
2.	Seminars									
3.	Clinical work in wards									
4.	Clinical presentation									
5.	Teaching skill practice									
6.										
	TOTAL									

Signature of HOD **Signature of Principal**