

Madhya Pradesh Medical Science University, Jabalpur

Scheme of Examination of Dental First Year (BDS)

I. Subjects of Study: First Year

- i) General Human Anatomy including Embryology and Histology (Examination at the end of first academic year)
- ii) General Human Physiology and Biochemistry, Nutrition and Dietics (Examination at the end of first academic year)
- iii) Dental Anatomy, Embryology and Oral Histology (Examination at the end of first academic year)
- iv) Dental Materials: (Examination at the end of second academic year)
- v) Pre-clinical Prosthodontics and Crown & Bridge (Examination at the end of second academic year)

II. Scheme of Examination

The Scheme of examination of B.D.S. course shall be divided into **5 professional examinations**, viz., I.B.D.S. Examination at the end of first academic year, II B.D.S. at the end of second academic year, III B.D.S. at the end of third academic year and IV B.D.S. examination at the end of fourth academic year and V B.D.S. examination at the end of fifth academic year.

BDS I EXAMINATION SHALL HAVE FOLLOWING SUBJECTS AND MARKS

Subjects	Theory Paper	Viva voce	Internal Assessment	Practical examination	Internal Assessment	Grand Total
I BDS 1. General Anatomy including Embryology and Histology	70	20	10	90	10	200
2. Section-A General Human Physiology And Section-B Biochemistry Nutrition and Dietics	35	10	05	45	05	200
	35	10	05	45	05	
3. Dental Anatomy, Embryology and Oral Histology.	70	20	10	90	10	200

III. i. Internal Assessment

The internal assessment need not be limited to written tests. It should relate to other items such as maintenance of records, participation in seminars and group discussions, clinical case study, proficiency in carrying out practical or clinical skill or participation in projects and assignments (even) during vacation. These be evaluated objectively and recorded. The weightage given to practical/clinical examinations.

A minimum of three internal assessments to be held in an academic year and the average of best two of these tests shall be sent to the university.

INTERNAL ASSESSMENT FOR SUBJECTS (i-iii) which are to be examined in First year.

Total Marks : 40- Theory 20 and Practical 20

THEORY : 20 Marks

Minimum of three examinations are recommended. The sessional examination preceding the university examination may be similar to the pattern of university examination. Average of any two best marks obtained in the notified internal examinations may be taken into consideration for calculating internal assessment. The total marks be reduced to 20 and sent to the university.

PRACTICALS : 20 Marks

There will be two terminal practical examinations. 5 marks will be for records and 15 marks for terminal tests. Average marks of the two terminal examinations shall be reduced to 15 marks and added to the marks obtained for records and sum of the two shall be sent to the university.

The internal assessment marks both theory and practical obtained by the candidates should be sent to the university as per academic calendar of MPMSU and notifications.

IV. ii. University Examination:

There shall be two examinations annually (Main and Supplementary) conducted at an interval of not less than four to six months. The written examination in each subject shall consist of one paper of three hours duration and shall have maximum of 70 marks.

V. Type of questions and distribution of marks:

Each question paper shall be of 3 hours duration, carrying maximum marks of 70. There shall be three types of questions with distribution of marks as shown in Table I:

Table – I

Type of Questions	No. of Questions	Marks of Questions	Total Marks
Long Essay Type (One of them may be case scenario on Applied aspect)	2	10	20
Short Essay Type	10	3	30
Short Answer Type	10	2	20
GRAND TOTAL			70

Note: In case of Physiology & Biochemistry

The distribution of marks and types of questions will be as shown in Table-II and III.

Table – II

	Type of Questions	No. of Questions	Marks of Questions	Total Marks
Physiology	Long Essay Type	01	10	10
	Short Essay Type	05	03	15
	Short Answer Type	05	02	10
	GRAND TOTAL			35

Table – III

	Type of Questions	No. of Questions	Marks of Questions	Total Marks
Biochemistry Nutrition and Dietics	Long Essay Type	01	10	10
	Short Essay Type	05	03	15
	Short Answer Type	05	02	10
	GRAND TOTAL			35

Note: One Long Essay type in either of the two sections can be a case scenario based on applied aspects.

VI. Distribution of Marks in University Examination and Internal Assessment for various subjects is shown in Table IV:

Table – IV

Distribution of Marks in University Examination and Internal Assessment for various subjects of First year:

Scheme of Examination: General Anatomy including Embryology and Histology

A. Theory : 70 Marks

Distribution of Topics and Type of Questions;

Contents	Type of Questions and Marks	Marks
Gross Anatomy of Head and Neck – Scalp, face, Triangles of Neck, Dural folds and Venous sinuses, contents of the Orbit excluding Eyeball, Parotid Gland, Infratemporal fossa, Temporo mandibular joint, Submandibular region, Thyroid gland, Pharynx, tongue, Nasal Cavity and paranasal air sinuses. Cranial nerves – V, VII, IX and XII Development of Branchial arches oranecial pouches apparatus, Face. Systemic Embryology and Systemic Histology.	Long Essays	20
Gross Anatomy of Head and Neck – Scalp, Face, Cervical fascia, Midline structures of the neck, Vertebral Joints of Neck, Contents of the Orbit excluding Eyeball, Vessels of Head and Neck, Infratemporal fossa, Mouth, Palate, Pharynx, Nasal Cavity, Cervical Part of Trachea and Oesophagus, Lymphatic drainage of Hand and Neck Cranial nerves – V, VII, IX, XI and XII and Cervical Plexus General and Systemic embryology and Histology, Osteology of Head and Neck	Short Essays Short Answers	50
	Total	70

B. Viva Voce : 20 Marks

(All four examiners examine the student separately, 5 marks each)

- a. Osteology of Head and neck : 05 marks
- b. Soft part from Head and Neck : 05 marks
- c. Embryology Models : 05 marks
- d. Radiological Anatomy : 05 marks

C. Internal Assessment – Theory: 10 Marks, Practical: 10 Marks

D. Practicals : 90 Marks

Gross Anatomy

- a. Spotters carrying 2 marks each 2 x 10 = 20 marks
- b. Discussion on Two given dissected specimens 2 x 10 = 20 marks
- c. Surface Anatomy 10 x 1 = 10 marks

Histology

- a. Identification of 10 Slides of 02 mark each 02 x 10 = 20 marks
- b. Discussion on TWO given slides 10 x 2 = 20 marks

Scheme of Examination: Section-A General Human Physiology**A. Theory :****35 Marks**

Distribution of Topics and Types of Questions

Contents	Type of Questions and Marks	Marks
Long Essay Questions preferably from 1. Blood 2. Gastro intestinal tract 3. Cardio Vascular System 4. Respiratory System 5. Endocrines 6. Reproductive System	Long Essays	10
Short Essay Questions should be set from all the chapters. (Except the chapter on which a Long Essay Question has been set)	Short Essay	15
Short Answer Questions should be set from all the chapters. (Except the chapter on which a Long Essay Question has been set)	Short Answers	10
	Total	35 marks

B. Viva Voce : 10 Marks**Note: In Viva-voce (All four examiners examine the student separately)****C. Internal Assessment – Theory :05 marks, Practicals : 05 marks****D. Practicals : 45 Marks**

Major Experiments – 30 Marks

Any one of the Major Experiments

1. R.B.C. Count
2. W.B.C. Count
3. Differential Count
4. Blood Pressure Recording

Minor Experiments – 15 Marks

Any one of the minor Experiments

1. Determination of Blood Groups
2. Determination of Bleeding & Clotting time
3. Haemoglobin Estimation
4. Calculation of absolute Haematological Indices –MCH, MCV, MCHC

Scheme of Examination: Section-B Biochemistry Nutrition and Dietics**A. Theory****35 Marks**

Distribution of Topics and Types of Questions

Contents	Type of Questions and Marks	Marks
Chemistry of Carbohydrates, proteins, lipids and amino acids, Fat soluble and water soluble vitamins. Enzymes. Metabolism of carbohydrates, proteins, lipids and minerals	Long Essays	10
Chemistry and metabolism of : Carbohydrates, lipids, proteins, nucleic acids, minerals. Fats soluble and water soluble vitamins, Nutrition and dietetics, Liver function tests, pH and its biological importance, Renal function tests, Blood constituents, Biological oxidation.	Short Essay	15
Chemistry and metabolism of: Carbohydrates, lipids, proteins, nucleic acids, Minerals. Fats soluble and water soluble vitamins, Nutrition and dietetics, Liver function tests, pH and its biological importance, Renal function tests, Blood constituents, Biological oxidation.	Short Essay	15
Chemistry and metabolism of: Carbohydrates, lipids, proteins, nucleic acids, minerals. Fats soluble and water soluble vitamins, Nutrition and dietetics, Liver function tests, pH And its biological importance, Renal function tests, Blood constituents.	Short Answers	10
	Total	35 marks

B. Viva-Voce:**10 Marks****Note: In Viva-voce (All four examiners examine the student separately)****C. Internal Assessment –****Theory: 05 Marks, Practicals : 05 Marks****D. Practicals:****45 Marks**

- | | |
|--|-----------------|
| 1. One procedure for quantitative estimation | 20 marks |
| 2. One procedure for qualitative analysis | 15 marks |
| 3. Interpretation of Laboratory results in given chart | 10 marks |
| Total | 45 marks |

The following are suggested:**Quantitative Estimation (Any ONE estimation to be done)**

1. Estimation of Blood Glucose – using Folin-wu method, using deproteinized blood.
2. Determination of Creatinine in Urine – using Jaffes's method
3. Determination of Titrable acidity and Ammonia content of Urine – using Malfatti's Method

Qualitative Analysis (Any ONE analysis to be done)

1. Identification of Carbohydrates – glucose, fructose, sucrose, lactose, maltose, starch.
2. Colour Reactions – albumin
3. Precipitation Reactions – albumin
4. Identification of Proteins – albumin, gelatin, casein, peptone
5. Urine Analysis – normal constituents
6. Urine Analysis – pathological constituents

Chart Interpretation (Interpretation of ONE Clinical chart)

1. Glucose tolerance Test
2. Values of Blood Constituents and their clinical variation:- urea, cholesterol, calcium, phosphorus, bilirubin

Scheme of Examination: Dental Anatomy, Embryology and Oral Histology.**A. Theory : 70 Marks****Distribution of Topics and Type of Questions**

Contents	Type of Questions and Marks	Marks
A. Dental anatomy- one question – 10 marks B. Dental histology – one question – 10 marks (One of them may be case scenario on Applied aspect)	Long Essays	20
A. Oral histology – five questions – 15 marks B. Dental anatomy – three questions – 9 marks C. Oral physiology – two question – 6 marks	Short Essays	30
A. Oral histology – Four questions – 08 marks B. Dental anatomy – two questions – 04 marks C. Oral physiology – two questions – 04 marks D. Oral embryology – two questions – 04 marks	Short Answers	20
E.	Total	70

B. Viva Voce : 20 Marks (All four examiners examine the student separately, and preferably the four sections will be on Applied aspects, Anatomy, Embryology and Histology, 5 marks each)

C. Internal Assessment-Theory : 10 marks, Practicals: 10 marks

D. Practicals : 90 Marks

1. Carving 30 marks 1 hour 15 min
2. Spotters 60 marks (20 spotter x 3 marks) 1 hour 15 min
 - 13 histology and ground section slides
 - 4 tooth identification
 - 3 casts for identifications of teeth, numbering system and age assessment.



SYLLABUS SECOND B.D.S.

Candidate will be examine in the following subjects :

1. General Pathology, Microbiology and Parasitology
2. General and Dental Pharmacology and Therapeutics
3. Dental Materials
4. Preclinical Prosthodontics (Practical's)
5. Preclinical Conservative Dentistry (Practical's)

Subject 1: General Pathology, Microbiology and Parasitology

(Syllabus shall be as per DCI Norms)

A. General Pathology

Lectures -	55 Hours
Practical's and demonstration	55 Hours
Total Duration	110 Hours (Minimum)

As Per DCI Norms:-

1. Introduction to Pathology, definition, branches, scope of Pathology, scientific study of disease and some techniques used in the same.
2. Degenerative processes and disturbances of metabolism. Cloudy swelling," Fatty changes, Amyloidosis, Hyaline degeneration, Pigmentation, Calcification Necrosis, Gangrene.
Circulatory Disturbances.
Hyperaemia, Venous congestion, Ischaemia, Infarction, Hemorrhage, Thrombosis, Embolism, Oedema, Shock.
3. Inflammation, Response of soft and hard tissues to injuries. Acute inflammation
chronic inflammation
Repair with special emphasis of repair of bones, wounds and the effect of modern treatment on repair.
Hypersensitivity and Allergy
4. Common Bacterial infection i.e. Pyogenic, Enteric fever, Tuberculosis, Syphilis, Leprosy, Actinomycosis.

5. AIDS

6. Common diseases of bone like osteomyelitis

Effects of Chemical, Physical agents including ionising radiation especially on bones and teeth.

7. Disturbances of nutrition with special reference to Indian conditional Metabolic disorders e.g. Rickets, Scurvy, Diabetes Mellitus etc.

8. Growth and its disorder.

Metaplasia, Atrophy, Hypertrophy

Elementary knowledge of malformation and maldevelopment Tumour

Classification

Characters of malignant and Benign Tumour

Carcinogenesis

Methods of spread Diagnostic

methods in cancer

9. Anaemias i.e. Irondeficiency, Megaloblastic, Haemolytic, Bleeding disorder and their laboratory investigations, leukaemia.

B. Microbiology

Lectures 65 hours

Practicals 50 hours

Total Duration 115 hours (Minimum)

As Per DCI Regulation:-

1. Introduction with reference to Medical and Dental microbiology including public health and preventive aspects of infections.
2. Methods and Principles of sterilization-physical and chemical.
3. Pyaemia, Septicemia.& Toxaemia.
4. Immunity and Immunising agents.
5. Auto-immunity-emphasis on practical application.

6. Morphology, Laboratory diagnosis, Physiology, Characteristics, Pathogenesis and classification of micro organisms particularly the followings.
 - a) Gram positive and negative cocci and bacilli in dental and general infections.
 - b) Spirochetal oral infections.
 - c) Normal oral microbial flora.
 - d) Organism causing specific infections such as meningitis, diphtheria, tetanus, gas gangrene, Tuberculosis, syphilis,
 - e) Organisms related to Dental caries.
7. Methods of taking swabs and smears from various oral regions and their staining.
8. Elementary knowledge of virology and mycology with examples of Orofacial lesions.
9. Common parasites and parasitic diseases such as amoebiasis, Malaria, Helminthic infections such as Tapeworm, Hookworm Roundworm
10. AIDS, Hepatitis, Biosefty and waste disposal.

PRACTICALS & DEMONSTRATIONS AS PER DENTEL DCI NORMS

Lecture Demonstration and practicals in Clinical Pathology comprising of Anemias and their laboratory investigations, Blood transfusion and cross matching, Bleeding disorders and their investigations.

Laboratory investigations commonly required by Dental Surgeons

- a) Hemoglobinometry and Hemocytometry, Total leucocytes count.
- b) Iron deficiency anemia, Megaloblastic.
- c) Preparation of Blood Smears and staining them or differential count.
- d) Demonstration of Bleeding time, Clotting time.
- e) Leukaemia, Acute and chronic.
- f) Blood groups and blood transfusion. Exam. of Urine.
- g) Microscope, its various parts, Micrometry, care of microscope.
- h) Gram's staining and Ziehl- Neeilsen's staining.
- i) Histopathology, practicals and specimans, demonstrations.

EXAMINATIONS PATTERN

I: Theory (Written) paper shall be of three hours duration.

Pattern of Theory Examination including Distribution of Marks, Questions, Time.

Nature of Question Paper
Faculty with Year: Second BDS

Subject: General Pathology, Microbiology and Parasitology

Total Marks: 70

Time: 3 Hours

Instructions:

- 1) All questions are compulsory
- 2) MCQ question paper should be conducted and completed in first 30 min. written question paper must be given only after taking back the MCQ answer sheet
- 3) Fill (dark) the appropriate empty circle below the question number once only.
- 4) Use blue/black ball point pen only.
- 5) Each MCQ carries one / half mark.
- 6) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked on MCQ.
- 7) For Question no. 2, 3, 4 and 5 time duration is 2.30 hour
- 8) Draw diagrams wherever necessary for Question no. 2, 3, 4 and 5.
- 9) Answers of Questions and Sub questions must be written strictly according to the serial order of question paper.
- 10) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.

Question No.	Question Description	Division of Marks	Total Marks
1.	Total MCQs : 20 marks 20 questions shall include 10 questions of General pathology and 10 General Microbiology	20	20
	Section B: General Pathology		
2.	<u>Long answer question two:- a) b)</u>	<u>2 X 5</u>	<u>10</u>
3.	<u>short answer questions five:- a) b) c) d) e)</u>	<u>5X 3</u>	<u>15</u>
	Section C: Microbiology and Parasitology		
4.	<u>Long answer question two:- a) b)</u>	<u>2 X 5</u>	<u>10</u>
5.	<u>short answer questions five:- a) b) c) d) e)</u>	<u>5X 3</u>	<u>15</u>

- **Viva Voce – 20 Marks**
- **Internal Assessment (Theory -10)**

II: Practicals	MAXIMUM : 90 Marks
Clinical pathology	20 Marks
Histopathology(2 slides X 5)	10 Marks
Microbiology Staining (any One)	20 Marks
Spotting (10 spot X 2)	20 Marks
Journal (Micro & Patho)	20 Marks
III : Internal Assessment (Practical)	10 Marks

Subject 2 : General & Dental Pharmacology & Therapeutics

(Syllabus shall be as per DCI Norms)

Duration of syllabus lecture	-70 Hrs (Minimum)
Practical	20 Hrs (Total-90 Hrs)
1) General Pharmacology	<ul style="list-style-type: none">- Scope- Nature & Sources- Dosage form & routes of administration- Prescription writing- Pharmacokinetics- Mode of Action<ul style="list-style-type: none">-Factors modifying drug action-Adverse drug reaction- Drug Interaction
2) CNS	<ul style="list-style-type: none">-General Anaesthetics-Hyposedatives-Analgesics-Psychotropics-Antiepileptics-Analaptics-Local Anaesthetics
3) ANS	<ul style="list-style-type: none">- Sympathomimetic- Anti adrenergic drug- Parasympathomimetics<ul style="list-style-type: none">- Parasympatholytics- Histamine- Antihistaminics
4) CVS	<ul style="list-style-type: none">- Cardiac stimulent(Glycosides)- Anti anginal drugs- Anti hypertensive drugs- Vesopressors & Treatment of shock
5) Drug acting on blood	<ul style="list-style-type: none">- Coagulents- Anti coagulents

- 6) G.I.T. Drugs
 - Haematinics..
 - Purgatives
 - Anti diarrheals
 - Antacids
 - Anti emetics
 - Treatment of diabetics
 - Adrenal Corticosteroids
- 7) Endocrines
- 8) Chemo therapy
 - Sulfonamides & cotrimoxazole
 - Penicillins
 - Cephalosporins
 - Aminoglycosides
 - Broad spectrum antibiotics
 - Other antibiotics
 - Fluroquinolones
 - Chemotherapy of tuberculosis
 - leprosy, malignancy, Malaria & Amoebiasis Antihelminthic
 - Antiviral
- 9) Vitamins & Anti oxidants
- 10) Misc. drugs
 - Diuretics
 - Heavy Metal antagonists

Dental Pharmacology & Therapeutics

- Antiseptics
 - Astringents
 - Obtundant, Mummifying agents
 - Bleaching agents
 - Dentifrices & Mouthwashes
 - Cough & Bronchial asthma
- 11) Respiratory system :

PRACTICALS .20 HOURS DURATION. (MINIMUM)

- 1) Prescription Writing and weights, measures, instruments
- 2) Antiseptic Mouthwash
- 3) Obtundant Preparation
- 4) Gum Paint
- 5) Tooth Powder
- 6) Tooth Paste
- 7) Lotion
- 8) Display of Trade Mark Combination
 - Mention Only for training
 - Therapeutic action and not for
 - Toxic actions University
 - Contraindications Examination
 - Indications
- 9) Criticism & Correction of Prescription on basis of drug interaction.
- 10) Drugs of Choice.

EXAMINATIONS PATTERN

I: Theory (Written) paper shall be of three hours duration.

Pattern of Theory Examination including Distribution of Marks, Questions, Time.

Nature of Question Paper
Faculty with Year: Second BDS

Subject: General and Dental Pharmacology

Total Marks: 70

Time: 3 Hours

Instructions:

- 1) All questions are compulsory
- 2) MCQ question paper should be conducted and completed in first 30 min. written question paper must be given only after taking back the MCQ answer sheet
- 3) Fill (dark) the appropriate empty circle below the question number once only.
- 4) Use blue/black ball point pen only.
- 5) Each MCQ carries one / half mark.
- 6) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked on MCQ.
- 7) For Question no. 2 and 3 time duration is 2.30 hour
- 8) Draw diagrams wherever necessary for Question no. 2 and 3.
- 9) Answers of Questions and Sub questions must be written strictly according to the serial order of question paper.
- 10) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.

Question No.	Question Description	Division of Marks	Total Marks
1.	Total MCQs : 20 marks	20	20
2.	<u>Long answer question four:-</u> a) b) c) d)	<u>4 X 5</u>	<u>20</u>
3.	<u>short answer questions ten:-</u> a) b) c) d) e) f) g) h) i) j) k) l)	<u>10X 3</u>	<u>30</u>

- **Viva Voce – 20 Marks**
- **Internal Assessment (Theory -10)**

PRACTICAL: Maximum 90 marks.

Distributions are as under:

- | | |
|--|-------------|
| a) Pharmacy Practical | - 25 marks |
| b) Correction of wrong prescription | - 25 marks |
| c) Drug of choice & Dose (5 Drugs x 4) | - 20 marks. |
| d) Journals /Record book | - 20 marks. |
| Internal Assessment – (Practical) | - 10 marks |

SUBJECT: 3 Dental Materials
(Syllabus shall be as per DCI Norms)
Theory -60 Hrs.
Practical - 200 Hrs.

As Per DCI Regulation:-

1. Chemistry of synthetic resins used in dentistry.
2. Dental porcelains - types, composition, role played by each ingredient, manipulation, advantages and disadvantages, aluminous, porcelain, castable porcelain, metal fused porcelain, and porcelain repair materials.
3. Tooth restorative materials - Classification and ideal properties :
 - b. Cavity bases, liners and varnishes.
 - c. Restorative resins - Brief history of resins as tooth restorative materials, filled resins (composite resins) - classification, chemistry of setting, composition, properties, uses, manipulation advantages and disadvantages, acid etching, bonding agents (Enamel and dentin bonding systems), Pit and fissure sealants.
4. Direct filling Gold - types, advantages, disadvantages, brief study of manipulation (cold welding).
5. Silver amalgam alloy - Brief history, classification, composition, role played by each ingredient, setting reaction, properties, manipulation and uses, comparative study of all types of silver amalgams Mercury Hygiene and Toxicity
6. Casting gold alloys - Classification, corrosion, contents and role played by each ingredient, indications, white gold, uses.
7. Dental casting investments - (Refractory materials) Classification, composition, setting reaction, manipulation and technical consideration.
8. Casting procedures and casting defects, in general
9. Base metal casting alloys - properties, composition and uses of Co-Cr, St. steel.
10. Materials used in orthodontia - Luting cements, direct bonding agents, St. Steel, properties and gauges of wires of gold, st. steel, Co-Cr and titanium alloys, brackets, sensitization.
11. Abrasives and polishing agents -
 - a. Clinical
 - b. Laboratory.
12. Dental implant materials - History, biological properties and different designs.
13. Miscellaneous -
 - a. Infection control
 - b. Artificial tooth material.
 - c. Separating media
 - d. Die spacers
 - e. Tray adhesive
 - sf. Petroleum jelly
 - g. Articulating paper
 - h. Pressure indicating paste
 - i. Endodontic materials
 - j. Comparative studies between metallic and nonmetallic denture base.
 - k. Bioglass
 - l. Sprues
 - m. Setting expansion, hygroscopic expansion, thermal expansion
 - n. Dentifrices.

B) Examination (Theory Pattern)

Written Theory Paper shall be of 3 hours duration of maximum 70 marks.

Pattern of Theory Examination including Distribution of Marks, Questions, Time.

Nature of Question Paper
Faculty with Year: Second BDS

Subject: Dental Materials

Total Marks: 70

Time: 3 Hours

Instructions:

- 1) All questions are compulsory
- 2) MCQ question paper should be conducted and completed in first 30 min. written question paper must be given only after taking back the MCQ answer sheet
- 3) Fill (dark) the appropriate empty circle below the question number once only.
- 4) Use blue/black ball point pen only.
- 5) Each MCQ carries one / half mark.
- 6) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked on MCQ.
- 7) For Question no. 2 and 3 time duration is 2.30 hour
- 8) Draw diagrams wherever necessary for Question no. 2 and 3.
- 9) Answers of Questions and Sub questions must be written strictly according to the serial order of question paper.
- 10) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.

Question No.	Question Description	Division of Marks	Total Marks
1.	Total MCQs : 20 marks	20	20
2.	<i>Long answer question four:- a) b) c) d)</i>	4 X 5	20
3.	<i>short answer questions ten:- a) b) c) d) e) f) g) h) i) j) k) l)</i>	10X 3	30

- **Viva Voce – 20 Marks**
- **Internal Assessment (Theory -10)**

PRACTICALS: Maximum 90 marks.

- I) Spotters:- Identify and Write the composition and two important uses. -(25 marks)
Spotters_-25 Nos
Marks 01 each
Time 02 Mint. Each
- II) Exercise No. 1(20 Marks)
Any one exercise of the following:-
 - a. Manipulation of impression compound and preparation of plaster cast of U/L arch.
 - b. Manipulation of alginate Impression material and preparation of plaster cast of U/L arch.

- c. Manipulation of Zinc Oxide Eugenol Impression Paste, and Preparation Of cast of U/L arch.
 - d. Manipulation of Rubber Base impression material and Preparation of stone caste.
- III) Exercise No. 2- (20marks)
 Manipulation of any one of the following Dental Cements.
- a. ZOE (Luting and filling Consistency) .
 - b. Zinc Phosphate Cement (Luting and Base Consistency) .
 - c. Glass Ionomer Cement type I/II Luting/Filling Consistency).
 - d. Polycarboxylate cement (luting consistency).
- (cement which are mixed for filling consistency should be filled in the cavity prepared in the extracted natural looth/ typhodont.)
- IV) Exercise No. 3 (20 Marks)
- a. Tituration of silver Amalgam and condensation into the cavity prepared in extracted natural tooth/ typhodont.
 - b. Mixing to heart cure Acrylic resin and recording of time taken for all stages.

Internal Assiment (Practical) –

10 marks

Subject 4: PRECLINICAL PROSTHODONTICS (PRACTICALS)

Duration of syllabus: First and Second Year B.D.S.

Lecture – 25 hrs.

Practical – 200 hrs. Total = 225

Practical Exercises:

A) Fabrication of complete Denture Prosthesis using edentulous Models (Cast)

- 1) Introduction, Aims, Objective and Scope.
- 2) Masticatory apparatus- Applied anatomy of the components
- 3) Anatomical landmarks and Physiological considerations of the Edentulous maxillary and mandibular arches.
- 4) Preliminary impression, (Demonstration only) and cast preparatio.
- 5) Construction of special trays in shellac base and self cured acrylic resin.
 - a) Close-fit type b) Tray with full spacer and tissue stop.
- 6) Final impression & Master cast preparation by box-in technique (only)

Demonstration)

7) Preparation of Record bases..

a) Temporary denture bases (shellac/ selfaired acrylic resin)

b) Occlusion Rims of standard dimensions.

8) Brief introduction and Demonstration of J aw Relation recording

9) Brief introductions of articulators- Detail about Mean value articulator.

10) Transfer of Jaw Relation record on articulator.

11) Brief information about the selection of teeth.

12) Arrangement of teeth -Anteriors and posterior.

13) Reproducing gingival tissue morphology (Waxing and carving)

14) Laboratory Procedures:

i) Flasking -Various techniques in brief

ii) Wax elimination from mould (Dewaxing)

iii) Preparation and packing the mould with Denture base resin.

iv) Acrylization -Brief introduction about curing cycles

v) Deflasking -Denture recovery from flask.

vi) Laboratory Remount Procedure and selective grinding.

vii) Face bow preservation Record (optional)

viii) Finishing and polishing of Dentures

ix) Making Remount cast for Clinical remount procedure.

15) Teeth arrangement in Prognathic and Retrognathic ridge relations.

16) Repair to a broken complete denture.

B) Fabrication of Removable partial Dentures:

1. Brief introduction to partial Dentures.

2. Comparison between Removable and fixed partial dentures.

3. Classification (introduction) and rules governing the classification.

4. Making one tooth (Anterior) partial denture in acrylic resin.

5. Making (posterior) removable partial denture with 'C' clasp adaptation.
6. Surveying procedure (Demonstration only)
7. Brief introduction of various components of partial Denture.
8. Designing partial denture framework on partially edentulous cast (Drawing as Diagnostic model and in journal)
9. Brief introduction to various laboratory steps in fabrication of cast partial denture framework by using audio-visual aids.

C) Fixed partial Denture Prosthesis :

1. Brief introduction to crown and Bridge prosthesis
2. Principles of tooth reduction (Preparing abutment) to receive
 - a) Full crown for anteriors and posterior teeth .
 - b) partial veneer crown for anteriors and posterior teeth
 - c) Dowel crown/post and core crown (Demonstration only)
3. Casting procedure to fabricate 3 unit bridge (Demonstration only) with special consideration to making of dies and working models.
4. Brief introduction of pontic designs.

D) Special Prosthesis :

1. Making of cap spints & gunning splint (only Demonstrations.)
2. Fabrication of obturators (only demonstration)
3. Introduction (with models/charts/photographs) of various maxillofacial prosthesis & Dental Implant.

EXAMINATION PATTERN:

D) Internal assessment. 10 Marks

- | | | |
|-----------------------------|----|---|
| a) First test of 2.5 Marks | -- | Making of special tray/Occlusion rims |
| b) Second test of 2.5 Marks | -- | Arrangement of teeth |
| c) Third test of 5 Marks -- | | Designing a removable partial denture for (cast partial framework) given model (Drawing on Cast |

and Lab. prescription slip) Preparation of tooth to receive Full/P.V. Crown with wax pattern

First two tests to be conducted in first Year B.D.S. and third test to be conducted in Second Year B.D.S. Marks of First two tests must be submitted to university along with the marks of other First year subjects.

II Practical Examination: 90 Marks

To be conducted at the end of Second Year B.D.S. along with university practical programme of other subjects. Break-up is as under:

<u>Exercise I</u> a) Teeth arrangement for complete denture	.25Marks	Duration
b) Waxing and carving (Gingival tissue morphology)..	15 Marks	3 Hrs.
<u>Exercise II</u> c) Abutment preparation to receive crown	.20Marks.	Duration
d) Wax pattern for that preparation	..10Marks.	2 Hrs.
e) Journals/Record of the-two Year work	..20Marks.	

Subject 5: PRECLINICAL CONSERVATIVE DENTISTRY (PRACTICALS)

Duration of Syllabus: Second Year B.D.S.

Lecture – 25 hrs. & practical – 200 hrs. Total 225 Hrs.

Syllabus :

Practical Exercises:

- A. Exercises to improve the dexterity:
 - i) Preparation of plaster models of teeth
 - ii) Finishing and polishing of plaster models
 - iii) Marking of cavity as per Black's classification on these plaster models for Dental Amalgum fillings and inlays.
 - iv) Preparation of cavities for Amalgum fillings and Inlays on plaster model
 - v) Restoration of the prepared cavities with modelling wax.

B. Exercises for cavity preparation of Dental Amalgum Restoration on natural/ivorine

- 1) Mounting of the Natural/Ivorine teeth on phantom head.
- 2) Preparation of Cl. I/Cl.I Comp./Cl.II/Cl. V /M.O./D. cavities of posterior teeth with special emphasis on Cl. II cavities.
- 3) Cavity lining on all the prepared cavities
- 4) Restoration & polishing of all teeth restored with dental amalgam.

C. Exercises for anterior teeth restoration.

- 1) Preparation of Cl. III/Cl. IV cavities in anterior teeth. 2}
Preparation of wax pattern for the same with inlay wax.

DEMONSTRATIONS ONLY

1. Casting procedures
2. Restoration of fractured anterior teeth with composites resins.
3. Opening of root canal for anterior/ posterior teeth.

EXAMINATION PATTERN

I. Internal assessment. 10 Marks.

- a) First Test of 2.5 Marks. ..Cavity Preparation & filling on plaster models
- b) Second Test of 2.5 Marks . .Cavity preparation class II on ivory/Extracted (Natural) tooth & filling in Amalgum.
- c) Third Test of 5 Marks ...Restoration of prepared cavity by using /GIC/ Composite resin or any other suitable material.
...Class I inlay preparation of wax pattern on ivory/extracted tooth.

First two tests in First Term & Last in second term to be conducted. The marks in proforma to be submitted along with other subjects. .

II. Practical Examination. 90 Marks

To be conducted along with university practical examination of other subjects. Break-up is as under.

Exercise . I : 2 Hours duration.

- i) Class II cavity preparation on ivory/Extracted tooth (for Amalgum fillings) 20 Marks
- ii) Lining 05 Marks
- iii) Filling of the cavity with amalgum and carving 15 Marks

Exercise. II : 1 Hours duration.

- i) Class I Inlay cavity preparation on ivory/ natural tooth 20 Marks
- ii) Wax pattern for inlay 10 Marks
- iii) Records/ Journals 20 Marks

Madhya Pradesh Medical Science University Jabalpur

Scheme of Practical & /or Clinical examination

University Practical/Clinical Examination ...

90 Marks

The Practical/Clinical examination shall be conducted at the centre's where adequate facilities are available to conduct such examinations and the centre/college is approved/recognized by Dental Council of India.

Not more than 40 students to be examined per day. The marks should be submitted in the proforma supplied by the University Authority. This proforma should be signed by the examiners. Over writing or scratching will not be permitted. Any corrections made, must have the counter-signature of external examiners

The sealed envelope containing this proforma shall be submitted on the same day to the Dean for onward transmission to the Controller of examinations, Madhya Pradesh Medical Science University Jabalpur. No examiner or any other person connected with the work of practical examination is permitted to carry any paper or violate the rules of examination. The person found guilty will be debarred from such confidential work for a minimum period of 5 Consecutive University examinations or the actions as suggested by the relevant Committee to investigate such matters.

Appendix E

Madhya Pradesh Medical Science University Jabalpur Format of the Practical / Clinical Examination Marks

Chart showing marks obtained by the candidates in practical / clinical examination, to be submitted by the examiner in sealed cover through the Dean of the college to the Controller of Examination, MPMSU, Jabalpur

Name of Examination: _____ Summer / winter _____

Centre: _____

Subject: PHARMAOLOGY

Roll No.	Pharmacy Practical	Correction of wrong Prescription	Drug of Choice & Dose 5 Drug	Journal	Total
	25	25	20	20	90

Subject : GENERAL PATHOLOGY AND MICROBIOLOGY

Roll No.	Clinical Pathology	Histopathology (2 Slices x 5 Marks)	Microbiology Staining	Spotting 10 x 2 Marks	Journal	Total
	20	10	20	20	20	90

Subject : ORAL DENTAL ANATOMY, HISTOLOGY ETC.

Roll No.	Slides (6 Spots 5 Marks)	Spotting & Specimen (4 Spots x 5 Marks)	Carving of tooth	Journal	Total
	30	20	20	20	90

Subject : PRE-CLINICAL PROSTHODONTICS PRACTICAL

s

Roll No.	Teeth Arrangement	Waxing & Carving	Abutment Preparation For Crown	Wax Pattern	Journal	Total
	25	15	20	10	20	90

Subject : PRECLINICAL CONSERVATIVE DENTISTRY

Roll No	Caviti Amalgam Preparation	Lining	Filling	Inlay	Wax pattern	Journal	Total
	20	10	15	20	5	20	90

External Examiners :

Name: _____

Signature: _____

Internal Examiners :

Name : _____

Signature : _____

- 5) All records of this examination shall be preserved up to the commencement of next university examination of that batch by head of Department in consultation with the Dean.
- 6) a) The marks obtained by candidate should be submitted in controller of examination Internal Assessment Examination.

b) The marks of all internal assessment tests shall be submitted to the controller of examination in the profarma as shown in Appendix -D, by HOD, through the Dean / Principal of the college before 20 days of the commencement of the University Theory Examination by Hand delivery or Register post.
- 7) In case the candidate fails in University Examination, he should be assessed afresh for internal assessment marks. The internal assessment marks of this examination to be submitted to University Authority
- 8) For repeater students, only two examinations in that term will be conducted. Each test will be of 10 marks each. Thus college authority should submit marks out of 20 by applying the same schedule.
- 9) In case candidate remains absent only on valid ground where his presence elsewhere is justified or when he is unable to attend the examination on health ground and when he informed the H.OD and Dean about his inability to attend such examination before or during the examination schedule, the Dean in consultation with heads of Department of concerned subject shall conduct re-

examination for the student within 20 days or before commencement of next internal assessment test of University Examination.

The marks should be submitted for these students separately, if required.

11) The marks obtained by candidate as internal assessment will not be taken into account for passing the subject head, but will be added to the aggregate of that subject Head.

12) The internal assessment Tests for Preclinical Prosthodontic Practicals and

Preclinical Conservative Dentistry Practical will be conducted as per the details mention in syllabus of these subjects under the title of examination. (Please refer Page No.)

APPENDIX - F

MADHYA PRADESH MEDICAL UNIVERSITY, JABALPUR

First B.D.S. Summer / winter 200- Examination

Subject : _____

Name of the Centre: _____

Date of Practical Conduction: _____

(No Starching or overwriting please) correction if any to be signed by External & Internal Examiners both.

: ORAL EXAMINATION MARKS :

Roll No.	Enrolment No.	Marks allotted out of 20 (Max)	
		in figures	in words

External Examiners :

Internal Examiners :

Name: _____

Name: _____

Signature: _____

Signature: _____

Appendix – D

MADHYA PRADESH MEDICAL SCIENCE UNIVERSITY JABALPUR

INTERNAL ASSESSMENT MARKS FORB.D.S. SUMMER/WINTER EXAMINATION, YEAR

Subject: _____
 College: _____

Subhead – Theory / Practical

Sr. No.	Enrollment No	Roll No.	Name of the Student	Internal Assessment Test				Aggregate Total Out of 10	Net total (after rounding the fraction, if any) Marks obtained out of 10	In Words (Out of ten)	Signature of Student
				First Max 2.5	Second Max 2.5	Third Max 5					

Certificate that the marks entered in above proforma are as obtained by the candidates. The department will produce the necessary documents for verifacat University Authority if required.

Date : _____

Signature of Subject Teacher

Signature of Head of the Department

APPENDIX B

MADHYA PRADESH MEDICAL UNIVERSITY JABALPUR

Scheme of Examination for Second B.D.S Examination

Sr. No.	Subject	Subheads	Maximum marks allotted	Minimum marks required to pass in each sub head	Maximum marks allotted	Minimum marks required for awarding distinction
1	General Pathology and Microbiology	i) Theory (Written)	70	-	200	150
		ii) viva voice	20	-		
		iii) Theory + viva voice	90	45		
		iv) Internal Assessment (Theory)	10	-		
		iv) Theory + Oral + Internal Assessment (Theory)	100	50		
		i) Practical/Clinical	90	45		
		ii) IA Practical/Clinical	10	-		
		iii) Practical/Clinical + Internal Assessment (Practical/Clinical)	100	50		
2	General and Dental Pharmacology & Therapeutics	i) Theory (Written)	70	-	200	150
		ii) viva voice	20	-		
		iii) Theory + viva voice	90	45		
		iv) Internal Assessment (Theory)	10	-		
		iv) Theory + Oral + Internal Assessment (Theory)	100	50		

		i) Practical/Clinical	90	45		
		ii) IA Practical/Clinical	10	-		
		iii) Practical/Clinical +Internal Assessment (Practical/Clinical)	100	50		
3	Dental Materials	i) Theory (Written)	70	-		
		ii) viva voice	20	-		
		iii) Theory + viva voice	90	45		
		iv) Internal Assessment (Theory)	10	-	200	150
		iv) Theory + Oral + Internal Assessment (Theory)	100	50		
		i) Practical/Clinical	90	45		
		ii) IA Practical/Clinical	10	-		
		iii) Practical/Clinical +Internal Assessment (Practical/Clinical)	100	50		
4	Pre-clinical Prosthodontics	i) Practical/Clinical	60			
		ii) IA Practical/Clinical	20	-		
		iv) Viva	20			
	Practicals	Practical/Clinical +Internal Assessment + Viva (Practical/Clinical)	100	50	100	75
5	Pre-Clinical Conservative	i) Practical/Clinical	60			
		ii) IA Practical/Clinical	20	-		
		iii) Viva	20			
	Practicals	iii) Practical/Clinical +Internal Assessment (Practical/Clinical) + Viva	100	50	100	75
			Grand Total		800	600



Madhya Pradesh Medical Science University Jabalpur

SYLLABUS OF THIRD B.D.S.

(Syllabus shall be as per DCI Norms. Please see DCI website)

A candidate who has successfully completed. The 2nd B.D.S. examination as per DCI norms can appear in the third B.D.S. Examination.

Candidate will be examined in the following subjects:

1. General Medicine
2. General Surgery
3. Oral Pathology and Oral Microbiology

EXAMINATIONS PATTERN

I: Theory (Written) paper shall be of three hours duration. Pattern of Theory Examination including Distribution of Marks, Questions, Time.

Nature of Question Paper

Faculty with Year: third BDS

Subject: General Medicine

Total Marks: 70

Time: 3 Hours

Instructions:

- 1) All questions are compulsory
- 2) MCQ question paper should be conducted and completed in first 30 min. written question paper must be given only after taking back the MCQ answer sheet
- 3) Fill (dark) the appropriate empty circle below the question number once only.
- 4) Use blue/black ball point pen only.
- 5) Each MCQ carries one / half mark.
- 6) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked on MCQ.
- 7) For Question no. 2 and 3 time duration is 2.30 hour
- 8) Draw diagrams wherever necessary for Question no. 2 and 3.
- 9) Answers of Questions and Sub questions must be written strictly according to the serial order of question paper.
- 10) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.

Question No.	Question Description	Division of Marks	Total Marks
1	Total MCQs : 20	20x1	20
2	Long answer question four:- a) b) c) d)	4x5	20
3	short answer questions ten:- a) b) c) d) e) f) g) h) i) j)	10X 3	30

Nature of Question Paper

Faculty with Year: third BDS

Subject: General Surgery

Total Marks: 70

Time: 3 Hours

Instructions:

- 1) All questions are compulsory
- 2) MCQ question paper should be conducted and completed in first 30 min. written question paper must be given only after taking back the MCQ answer sheet
- 3) Fill (dark) the appropriate empty circle below the question number once only.
- 4) Use blue/black ball point pen only.
- 5) Each MCQ carries one / half mark.
- 6) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked on MCQ.
- 7) For Question no. 2 and 3 time duration is 2.30 hour
- 8) Draw diagrams wherever necessary for Question no. 2 and 3.
- 9) Answers of Questions and Sub questions must be written strictly according to the serial order of question paper.
- 10) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.

Question No.	Question Description	Division of Marks	Total Marks
1	Total MCQs : 20	20x1	20
2	Long answer question four:- a) b) c) d)	4x5	20
3	short answer questions ten:- a) b) c) d) e) f) g) h) i) j)	10X 3	30

Nature of Question Paper

Faculty with Year: third BDS

Subject: Oral Pathology and Oral Microbiology

Total Marks: 70

Time: 3 Hours

Instructions:

- 1) All questions are compulsory
- 2) MCQ question paper should be conducted and completed in first 30 min. written question paper must be given only after taking back the MCQ answer sheet
- 3) Fill (dark) the appropriate empty circle below the question number once only.
- 4) Use blue/black ball point pen only.
- 5) Each MCQ carries one / half mark.
- 6) Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked on MCQ.
- 7) For Question no. 2 and 3 time duration is 2.30 hour
- 8) Draw diagrams wherever necessary for Question no. 2 and 3.
- 9) Answers of Questions and Sub questions must be written strictly according to the serial order of question paper.
- 10) Do not write anything on the blank portion of the question paper. If written anything, such

type of act will be considered as an attempt to resort to unfair means.

Question No.	Question Description	Division of Marks	Total Marks
1	Total MCQs : 20	20x1	20
	Section A: Oral Pathology		
2	Long answer question two:- a) b)	2x5	10
3	short answer questions five:- a) b) c) d) e)	5X 3	15
	Section B: Oral Microbiology		
4	Long answer question two:- a) b)	2x5	10
5	short answer questions five:- a) b) c) d) e)	5X 3	15

MARKS DISTRIBUTION IN EACH SUBJECT:

Each subject shall have a maximum of 200 marks.

Theory 100 marks.

Practical/Clinical 100 marks.

Theory – 100 marks.	Practicals/ clinicals – 100 marks.
University written exam 70 marks.	University Exam 90 marks.
Viva Voce 20 marks.	Internal assessment 10 marks.
Internal assessment 10 marks.	

Criteria for a pass:

- For declaration of pass in a subject, a candidate shall secure 50% marks in the University examination both in Theory and Practical/ Clinical examinations separately, as stipulated below:
 - A candidate shall secure 50% marks in aggregate in University theory including Viva Voce and Internal assessment obtained In University written examination combined together.
 - In the University Practical/ clinical examination, a candidate shall secure 50% Of University practical marks and Internal Assessment combined together.
- Successful candidates who obtain 65% of the total marks or more shall be declared to have passed the examination in First Class. Other successful candidates will be placed in Second Class.
- A candidate who obtains 75% and above is eligible for Distinction.
- Only those candidates who pass the whole examination in the first attempt will be eligible for distinction or class.

Grace Marks: Grace marks upto a maximum of 5 marks shall be awarded to students as per university norms



मध्यप्रदेशआयुर्विज्ञानविश्वविद्यालय, जबलपुर
Madhya Pradesh Medical Science University, Jabalpur

Curricula for B.D.S. Final (Fourth year) Examination

Syllabus shall be as per the norms of Dental Council of India. Please see DCI website for complete syllabus.

Candidate will be examined in the following subjects:

1. Public Health Dentistry
2. Periodontology
3. Orthodontics and Dentofacial Orthopedic
4. Oral Medicine and Radiology
5. Oral & Maxillofacial Surgery
6. Conservative and Endodontics
7. Prosthodontics and Crown & Bridge
8. Paediatric and Preventive Dentistry

EXAMINATIONS PATTERN

The written examination in each subject shall consist of one paper of three hours duration and shall have maximum marks of 70.

MARKS DISTRIBUTION IN EACH SUBJECT:
Each subject shall have a maximum of 200 marks.

Theory = 100 Marks

University written exam	=70 Marks
Viva Voce	=20 Marks
Internal assessment	=10 Marks

Practicals/ clinicals =100 Marks

University Exam	=90 Marks
Internal assessment	=10 Marks

NATURE OF THEORY QUESTION PAPERS:
Pattern of Theory Examination including Distribution of Marks, Questions, Time.

Faculty with Year: BDS Final Year
Subject:

Maximum Marks: 70 Time: 3 Hours

Instructions:

- a) All questions are compulsory
- b) Draw diagrams wherever necessary
- c) Answers of Questions and Sub questions must be written strictly according to the serial order of question paper.
- d) MCQ has to be answered in theory answer book
- e) Please write MCQ answer neatly and in serial order with black or blue pen in brackets for example:- 1. (a) 2. (b)
- f) MCQ has to be answered only once, any kind of repetition or cutting or erasing or whitener will be considered as malpractice, Such answers will not be counted in the marks and action will be taken according to UFM rules of University
- g) Student can answer the question in both Hindi & English language

Question No	Question Description	Division of Marks	Total Marks
1	Total MCQs : 10	10 X1	10
2	Long answer question four a) b) c) d) e)	5 X6	30
3	short answer questions ten a) b) c) d) e) f) g) h) i) j)	10X3	30

Criteria for a pass:

- For declaration of pass in a subject, a candidate shall secure 50% marks in the University examination both in Theory and Practical/ Clinical examinations separately, as stipulated below:
 - o A candidate shall secure 50% marks in aggregate in University theory including Viva Voce and Internal assessment obtained in University written examination combined together.
 - o In the University Practical/ clinical examination, a candidate shall secure 50% of University practical marks and Internal Assessment combined together.
- Successful candidates who obtain 65% of the total marks or more shall be declared to have passed the examination in First Class. Other successful candidates will be placed in Second Class.
- A candidate who obtains 75% and above is eligible for Distinction.
- Only those candidates who pass the whole examination in the first attempt will be eligible for distinction or class.

Grace Marks: Grace marks up to a maximum of 5 marks shall be awarded to students as per university norms

[Published in the Gazette of India, Part III, Section 4.]

DENTAL COUNCIL OF INDIA

NOTIFICATION

New Delhi, dated 5th November, 2017.

No.DE-87-2017—In exercise of the powers conferred by clauses (g), (h) and (ha) of sub-section (2) of section 20 of the Dentists Act, 1948 (16 of 1948), the Dental Council of India, after consultation with the State Governments as required under clause (g) and (h) of the said Act, and in supersession of the Dental Council of India Revised MDS Course Regulations, 2007 except as respects things done or omitted to be done before such supersession, the Dental Council of India with the approval of the Central Government hereby makes the following regulations, namely:—

PART - I

PRELIMINARY

1. **Short title and commencement.**— (1) These regulations may be called the Dental Council of India, Master of Dental Surgery Course Regulations, 2017.

(2) They shall come into force on the date of their publication in the Official Gazette.
2. **Definitions** – In these regulations unless the context otherwise requires:-
 - (a) “Act” means the Dentists Act, 1948 (16 of 1948)
 - (b) “the Council” means the Dental Council of India constituted under section 3 of the Act;
 - (c) “dentistry” includes._
 - (i) the performance of any operation on, and the treatment on any disease, deficiency or lesion of, human teeth or jaws, and the performance of radiographic work in connection with human teeth or jaws or the oral cavity;
 - (ii) the giving of any anesthetic in connection with any such operation or treatment;
 - (iii) the mechanical construction or the renewal of artificial dentures or restorative dental appliances;
 - (iv) the performance of any operation on, or the giving of any treatment, advice or attendance to, any person preparatory to, or for the purpose of, or in connection with, the fitting, inserting, fixing, constructing, repairing or renewing of artificial dentures or restorative dental appliances, and the performance of any such operation and the giving of any such treatment, advice or attendance, as is usually performed or given by dentists;
 - (d) “NEET” means the National Eligibility-cum-Entrance Test conducted by the National Board of Examination for admission to post-graduate courses;
 - (e) “University” means a university established or incorporated by or under a Central Act, a Provincial Act or a State Act, and includes any such institution as may, in consultation with the university concerned, be recognised by the University Grant Commission in accordance with the regulations made in this behalf under this Act.

PART - II

GENERAL CONDITIONS TO BE OBSERVED BY POST GRADUATE TEACHING INSTITUTIONS

- 3. GENERAL CONDITIONS._** (1) The institutions recognised by the Central Government and after consultation with the Council shall be eligible for conducting the post-graduate degree or diploma course(s).
- (2) The maximum number of students for a post-graduate course, for training for the award of post-graduate degree or diploma by the affiliating university, shall be determined by the facilities available in the department in terms of infrastructure, teaching staff and clinical teaching material. However, to start with, a maximum of three post-graduate students, (one Unit) shall be permitted in a speciality department. The annual intake capacity recommended by the Council and approved by the Central Government for the academic year shall be final. No institution shall be permitted to increase more than three seats at a time in its annual intake capacity in a particular speciality in a given academic year. Not more than two units consisting of six seats (including increase of seats) shall be granted to any dental institutions for each speciality.
- (3) The students undergoing post-graduate courses shall be exposed to the following:-
- (i) basics of bio-statistics and research methodology;
 - (ii) basics of human behaviour studies;
 - (iii) basics of pharmaco-economics;
 - (iv) introduction to the non-linear mathematics.

4. ETHICS IN DENTISTRY._

There is a definite shift from the traditional patient and doctor relationship and delivery of dental care. With the advances in science and technology and the increasing needs of the patient, their families and community, there is a concern for the health of the community as a whole. There is a shift to greater accountability to the society. Dental specialists like the other health professionals are confronted with many ethical problems. It is therefore absolutely necessary for each and every one in the health care delivery to prepare themselves to deal with these problems. To accomplish this and develop human values, it is desired that all the trainees undergo ethical sensitization by lectures or discussion on ethical issues, discussion of cases with an important ethical component.

5. ELIGIBILITY FOR ADMISSION._

A candidate for admission to the Master in Dental Surgery course, must possess a recognised degree of Bachelor in 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/recognised 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.

6. 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.

7. **QUALIFYING CRITERIA FOR ADMISSION TO POST-GRADUATE COURSES._** (1) 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.

General	50 th Percentile
Person with locomotory disability of lower limbs	45 th Percentile
Scheduled Castes, Scheduled Tribes, Other Backward Classes	40 th Percentile

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:

~~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.~~

The above proviso has been substituted in terms of (1st Amendment) notification published on 15.03.2018 in the Gazette of India and the same is as under:-

Provided further that when the number of qualifying candidates in the respective categories on the basis of the above mentioned percentile are less than three times the number of vacancies, the cut-off percentile will be automatically lowered in such a manner that the number of eligible candidates shall be minimum three times the number of seats in each respective category.

- (2) 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:

The following words has been substituted in terms of (2nd Amendment) notification published on 18.09.2018 in the Gazette of India

Provided that in determining the merit of candidates who are in service of Government/public authority, weightage in the marks may be given by the Government/competent authority as an incentive upto 10% of the marks obtained for each year of service in ~~remote and/or difficult areas~~ **remote and/or difficult or rural areas** upto the maximum of 30% of the marks obtained in NEET. The ~~remote and difficult areas~~ **remote, difficult and rural areas** shall be as defined by State Government / competent authority from time to time.

- (3) 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.
- (4) Minimum 5% seats of the annual sanctioned intake capacity shall be filled up by candidates with locomotory disability of lower limbs between 50% to 70%:

Provided that in case any seat in this quota remains unfilled on account of unavailability of candidates with locomotory disability of lower limbs between 50% to 70% then any such unfilled seat shall be filled up by persons with locomotory disability of lower limbs between 40% to 50% - before they are included in the annual sanctioned seats for general category candidates:

Provided further that this entire exercise shall be completed by each dental college/institution as per the statutory time schedule for admissions.

8. COMMENCEMENT OF ACADEMIC SESSION AND CUT-OFF DATE FOR ADMISSION._

- (1) The academic session shall be commenced from 1st of May and the cut-off date for admission, even for stray vacancies, in the Master of Dental Surgery course shall be 31st of May, every year. The universities and other institutions shall start the admission process in such a way that teaching in post-graduate courses starts by 1st May each year for which they shall strictly adhere to the time schedule specified in the Dental Council of India (Establishment of new dental colleges, opening of higher courses of study and increase of admission capacity in existing dental colleges) Regulations, 2006.
- (2) There shall be no admission of students in respect of any academic session beyond the 31st May for post-graduate courses under any circumstances. The universities or institute shall not register any student beyond the said date; in case, any institution which grants admission to any student after the last date specified for the same shall also be liable to face such action including surrender of seats equivalent to the extent of such admission made from its sanctioned intake capacity for the succeeding academic year.
- (3) The Council may direct, that any student identified as having obtained his/her admission after the last date for closure of admission be discharged from the course of study, or any dental qualification granted to such a student shall not be a recognised qualification for the purpose of the Act.

9. COMMON COUNSELING. – (1) There shall be a common counseling for admission to all post-graduate courses (Diploma/MDS) in all dental educational institutions on the basis of merit list of the NEET.

- (2) The designated authority for counseling for the 50% All India Quota seats of the contributing States, as per the existing scheme for post graduate (Diploma/MDS) courses shall be the Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India. Further Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India shall conduct counseling for all post-graduate (Diploma/MDS) Courses in Dental Educational Institutions of the Central Government, Universities established by an Act of Parliament and the Deemed Universities.
- (3) The counseling for admission to post-graduate (Diploma/MDS) courses in all dental Educational Institutions in a State/Union Territory, including dental

educational institutions established by the State Government, University established by an Act of State/Union Territory Legislature, Trust, Society, Minority Institutions shall be conducted by the State/Union Territory Government.

- (4) In case, any dispute arises on such common counseling, the matter to the Central Government and its decisions shall be final, in this regard.

10. INFORMATION ON ADMISSION AND SCHEDULE OF EXAMINATION._ Every dental institution and its affiliating university shall furnish information on admissions in the courses of study, schedule of examinations to the Council, in such form as the Council may specify, within stipulated period from time to time.

11. PERIOD OF TRAINING._ (1) The period of training for the award of the MDS course shall be of three years duration for three academic years as full time candidates in an institution including the period of examination:

Provided that the time period required for passing out of the MDS course shall be a maximum of six years from the date of admission in said course:

Provided further that the duration of the post-graduate course for the post-graduate Diploma holders shall be of two years in the respective speciality. The syllabus and curriculum shall be the same as MDS Course in the concerned speciality except that they are not required (i) to undergo study and training in Basic Sciences and (ii) pass the PART-I Examination of MDS Course. However, they have to submit the dissertation work, as part of the post-graduate programme.

(2) During the period, each student shall take part actively in learning and teaching activities design of training, by the institution or the university. The teaching and learning activities in each speciality, shall be as under:-

(a) LECTURES:

There shall be some didactic lectures in the speciality 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.

(b) 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.

(c) 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.

(d) SYMPOSIUM:

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

(e) 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.

(f) 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.

(g) INTER-DEPARTMENTAL MEETINGS:

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

(h) 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.

(i) DENTAL EDUCATION PROGRAMMES:

Each department shall organise 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.

(j) 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 speciality and allied conferences / conventions during the training period.

(k) ROTATION AND POSTING IN OTHER DEPARTMENTS:

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

(l) DISSERTATION / THESIS:

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. 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.

(3) All the students of the speciality 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
before appearing for the
university examination |
| (j) | Submission of Library Dissertation | : | one dissertation within
eighteen months from
the date of commencement of
the course |

12. STIPEND. The post-graduate students shall be paid stipend only for duration of three years of the course, as may be fixed by the Central Government/State Government/Union territory Administration or such authority as the respective government/administration may authorise. Where any dispute arises regarding any such stipend, including, quantum of stipend, it shall be considered and decided by the Central Government/respective State Government/Union territory Administration at its own level and its decision shall be final.

13. MIGRATION: Under no circumstances, the migration or the transfer of students undergoing post-graduate Degree/Diploma shall not be permitted by the university or the authority. No inter-change of the speciality in the same institution or in any other institution shall be permitted after the date of the commencement of session.

PART-III

14. INFRASTRUCTURE AND FUNCTIONAL REQUIREMENTS :

- (1) **Space:** In addition to the undergraduate functional, facilities, the following physical facilities shall be made available to start a post-graduate training programme, namely:-

- (a) a minimum of 125 sq ft. area for each dental chair in the clinic. The area of the clinic shall be in accordance with the number of dental chairs required to be placed in the department;
- (b) each department shall be equipped with a seminar hall, library, sterilization room, (800 to 1000 sq.ft.)
- (2) **Equipment:** Each department shall have adequate number of standard equipments available in the market as approved by the ISI.

The details of equipments specialities / unit wise is annexed as Schedule –VII to these regulations.

- (3) **Library:** (a) There shall be a central library which shall provide the latest editions of books pertaining to the speciality and allied subjects. In additions to this, the departmental library shall be equipped with the latest books in the subjects concerned. In case, the central library is shared with the medical college, there shall be provision for additional space and separate budget for the dental college.
- (b) In addition to books and journals in the library, internet, CDs, audio-visual facilities should be available.
- (c) Minimum 15-20 titles of renowned authors, 4-6 international journals of the concerned speciality, alongwith 8-10 volumes of back issues of atleast 3 international journals of the concerned speciality should be available.
- (d) All the journals of the speciality and allied subjects shall be available out of which 50% should be in print form.

Note: All the existing dental institutions shall comply with these requirements except the land requirement of five acres within a period of three years from the date of publication of these regulations in the Official Gazette.

Part - IV

STAFFING PATTERN FOR POST-GRADUATE COURSE

15. TEACHING STAFF:

In a unit, two post-graduate students shall be guided by a Professor and one student by a Reader or an Associate Professor. To strengthen and maintain the standards of post-graduate training, the following unit-wise staffing pattern has been made mandatory, for the starting of a post-graduate course, namely:-

Unit 1 :-

Departments/Specialty	Minimum faculty requirement of 1 st Unit in an undergraduate institute having basic infrastructure of 50 admissions		
	Professor (HOD)	Readers/ Associate Professors	Lecturers/Assistant Professor
Prosthodontics and Crown & Bridge	1	3	4
Conservative Dentistry and Endodontics	1	3	4

Periodontology	1	2	2
Orthodontics & Dentofacial Orthopedics	1	2	2
Oral & Maxillofacial Surgery	1	2	2
Oral & Maxillofacial Pathology and Oral Microbiology	1	2	2
Oral Medicine & Radiology	1	2	2
Pediatric Dentistry	1	2	2
Public Health Dentistry	1	2	2

Departments/Specialty	Minimum faculty requirement of 1 st Unit in an undergraduate institute having basic infrastructure of 100 admissions		
	Professor (HOD)	Readers/Associate Professor	Lecturer/Assistant Professors
Prosthodontics and Crown & Bridge	1	3	6
Conservative Dentistry and Endodontics	1	3	6
Periodontology	1	3	3
Orthodontics & Dentofacial Orthopedics	1	2	3
Oral & Maxillofacial Surgery	1	3	3
Oral & Maxillofacial Pathology and Oral Microbiology	1	2	3
Oral Medicine & Radiology	1	2	3
Pediatric Dentistry	1	2	3
Public Health Dentistry	1	2	3

Unit 2 :-

Each department shall have the following additional teaching faculty, over and above the requirement of Unit 1.

Professor	1
Reader/Associate Professor	1
Lecturer/Asst. Professor	2

Note:- The department, which does not have the above staffing pattern, shall not start post-graduate course in that speciality.

16. PART-TIME PROFESSOR._

Part-time professor who can put in at list four hours a day or eighty hours in a month are eligible to enroll only one post-graduate student under them and they shall be entitled to 50% of leave entitled for regular teaching faculty.

17. AGE, EDUCATIONAL QUALIFICATIONS AND TEACHING EXPERIENCE._

(a) HEAD OF THE DEPARTMENT:

A Bachelors Degree in Dental Surgery from an Indian University with Masters in Dental Surgery / Diplomate of National Board recognised by the Government of India on the recommendations of the Council, and with one year teaching experience in the speciality as Professor, and shall have to acquire minimum points for publications as per the scheme given in the table.

(b) PROFESSOR:

A Bachelors Degree in Dental Surgery from an Indian University with Masters in Dental Surgery / Diplomate of National Board recognised by the Government of India on the recommendations of the Council, and with five years of teaching experience in the speciality as Reader/Associate Professor, and shall have to acquire minimum points for publications as per the scheme given in the table.

(c) READER/ASSOCIATE PROFESSOR:

A Bachelors Degree in Dental Surgery from an Indian University with Masters in Dental Surgery / Diplomate of National Board recognised by the Government of India on the recommendations of the Council, and with four years of teaching experience in the speciality after post-graduation, and shall have to acquire minimum points for publications as per the scheme given in the table.

(d) LECTURER/ASSISTANT PROFESSOR:

A Bachelors Degree in Dental Surgery from an Indian University with Masters in Dental Surgery / Diplomate of National Board recognised by the Government of India on the recommendations of the Council, in the speciality.

Note:

1. All the regular teaching faculty shall be full time.
2. Teaching experience gained in medical college, where there are no dental courses, shall not be accepted for teaching post-graduate students. Dental faculty with post-graduate qualification in dentistry, shifting from the dental department of a medical college shall have to complete minimum of three years of teaching experience in a dental college or institution before being accepted as post-graduate faculty.
3. In exceptional cases, the teaching experience, in Government dental colleges, may be considered for further promotion on the basis of total teaching experience.
4. The Reader/Associate Professor in a dental college shall attend teachers training program once in three years.
5. The Senior Residents with post-graduate qualification or Diplomate of National Board recognised by the Council, in the speciality having teaching experience in dental colleges may be considered equivalent to Lecturer/Assistant Professor.

6. Teaching experience in a private dental institution for less than one year shall not be considered relevant for post-graduate faculty.
7. The maximum age limit upto which a person can be appointed or granted extension or re-employed in service against the posts of dental teachers or Dean or Principal, as the case shall be, sixty five years.

Table - 1

	Category	Points
	Category I: (1) Journals Indexed to Pubmed – Medline Please see- www.ncbi.nlm.nih.gov/pubmed (2) Journals published by Indian/International Dental Speciality Associations approved by Dental Council of India.	15
	Category II: (1) Medical / Dental Journals published by Government Health Universities awarding dental degree or Govt. Universities awarding dental degree (2) Original Research/Study approved by I.C.M.R/Similar Govt. Bodies (3) Author of Text / Reference Book concerned to respective specialty (4) PhD. or any other similar additional qualification after MDS	10
	Category III: (1) Journals published by Deemed Universities / Dental Institutions / Indian Dental Association (2) Contribution of Chapters in the Text Book	5

Note:-

1. For any publication, except original research, first author (principal author) shall be given 100% points and remaining authors (co-authors) shall be given 50% points and upto a maximum of 5 co-authors will be considered.
2. For original research, all authors shall be given equal points and upto a maximum of 6 authors shall be considered.
3. Maximum of 3 publications shall be considered for allotting points in Category III.
4. Publication in tabloids / souvenirs / dental news magazines / abstracts of conference proceedings / letter of acceptance shall not be considered for allotment of points.

Total Score Required:

For Head of Department:	40 marks
Professor:	30 marks
Reader/Associate Professor:	20 marks

IMPORTANT:

1. A post-graduate teacher would be re-evaluated every three years and shall have at least an additional 15 points in their score.
2. A **Journal Review Expert Committee** may be formed which shall enlist all the available international and Indian dental journals in various categories. The list would be displayed on the Council's website. The Committee shall also be responsible for making annual review of the list of journals and shall continuously monitor the standard of publications in various journals and the categories of publications may be upgraded / downgraded, if the standard is not maintained by the journal. In case of any dispute, the recommendation of the Expert Committee shall be reviewed by the Executive Committee and decision of the Executive Committee would be final.

PART – V
EXAMINATIONS

18. EXAMINATIONS._

(a) 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.

(b) UNIVERSITY EXAMINATION._

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. 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.

(c) 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 re-submit his/ her dissertation to the examiner who shall accept it before appearing in the examination.

(d) 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. The affiliating 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.

(e) VIVA-VOCE EXAMINATION:

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

(f) 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. Distribution of topics for each paper will be as follows:

Part-I : Applied Basic Sciences: Applied Anatomy, embryology, growth and development Genetics, Immunology, anthropology, Physiology, nutrition & Biochemistry, Pathology & Microbiology, virology, Applied pharmacology, Research Methodology and bio statistics,. Applied Dental anatomy & histology, Oral pathology & oral Microbiology, Adult and geriatric psychology. Applied dental materials.

Part-II

Paper-I : Removable Prosthodontics and Implant supported prosthesis (Implantology), Geriatric dentistry and Cranio facial Prosthodontics

Paper-II : Fixed Prosthodontics, occlusion, TMJ and esthetics.

Paper-III : Essays

**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.

(g) DISTRIBUTION OF MARKS:
Theory : **(Total 400 Marks)**

(1) Part I University Examination (100 Marks):-

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 and Clinical Examination: 200 Marks

Viva-voce and Pedagogy : 100 Marks

19. 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 speciality. 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.

20. 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.

21. EXAMINATION CENTRE:

- (1) In the event of university exam being conducted in the same city or town having more than one post-graduate institution under the same university, one central examination centre shall be fixed by the university and the students from all the institutions of the city shall take the examination in that center: Provided that the clinical and viva-voce shall be conducted at their institute.
- (2) Rotation of the institutions as center of examination shall be as per direction of the university.

22. VALUATION OF ANSWER BOOKS:

Part-I : Answer book/s shall be evaluated by the internal and external examiner/s

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

23. CRITERIA FOR PASS CERTIFICATE:

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 speciality.

PART – VI SYLLABUS

The syllabus for post-graduate course includes both Applied Basic Sciences and subjects of concerned speciality. The syllabus in Applied Basic Sciences shall vary according to the particular speciality, similarly the candidates shall also acquire adequate knowledge in other subjects related to their respective speciality.

24. SYLLABUS DISTRIBUTION IN VARIOUS SPECIALITIES:

(i) PROSTHODONTICS AND CROWN & BRIDGE

Part-I

Paper-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-I : Removable Prosthodontics and Implant supported prosthesis(Implantology), Geriatric dentistry and Cranio facial Prosthodontics

Paper-II : Fixed Prosthodontics, occlusion, TMJ and esthetics.

Paper-III : Descriptive and analysing type question

(ii) PERIODONTOLOGY

Part- I

Paper-I : **Applied Basic Sciences:** Applied Anatomy, Physiology, and Biochemistry, Pathology, Microbiology, Pharmacology, Research Methodology and Biostatistics.

Part-II

Paper I	:	Normal Periodontal structure, Etiology and Pathogenesis of Periodontal diseases, epidemiology as related to Periodontics
Paper II	:	Periodontal diagnosis, therapy and Oral implantology
Paper III	:	Descriptive and analysing type question

(iii) ORAL & MAXILLOFACIAL SURGERY

Part-I

Paper-I	:	Applied Basic Sciences: Applied Anatomy, Physiology, & Biochemistry, Pathology, Microbiology, Pharmacology, Research Methodology and Biostatistics.
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Part- II:

Paper-I	:	Minor Oral Surgery and Trauma
Paper-II	:	Maxillo-facial Surgery
Paper-III	:	Descriptive and analysing type question

(iv) CONSERVATIVE DENTISTRY AND ENDODONTICS

Part-I

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

Paper-I	:	Conservative Dentistry
Paper-II	:	Endodontics
Paper-III	:	Descriptive and analysing type question

(v) ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS

Part-I

Paper-I	:	Applied Basic Sciences: Applied anatomy, Physiology, Dental Materials, Genetics, Pathology, Physical Anthropology, Applied Research methodology, Bio-Statistics and Applied Pharmacology.
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Part-II

Paper-I	:	Orthodontic history, Concepts of occlusion and esthetics, Child and Adult Psychology, Etiology and classification of malocclusion, Dentofacial Anomalies, Diagnostic procedures and treatment planning in Orthodontics, Practice management in Orthodontic
Paper II	:	Clinical Orthodontics
Paper III	:	Descriptive and analysing type question

(vi) ORAL AND MAXILLOFACIAL PATHOLOGY AND ORAL MICROBIOLOGY:

Part-I

Paper-I	:	Applied Basic Sciences: Applied anatomy, Physiology (General and oral), Cell Biology, General Histology, Biochemistry, General Pathology, General and Systemic Microbiology, Virology, Mycology, Basic Immunology, Oral Biology (oral and dental histology), Biostatistics and Research Methodology
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Part-II:

Paper-I	:	Oral pathology, Oral Microbiology and Immunology and Forensic Odontology
Paper-II	:	Laboratory techniques and Diagnosis and Oral Oncology
Paper-III	:	Descriptive and analysing type question

(vii) PUBLIC HEALTH DENTISTRY**Part-I**

Paper-I : **Applied Basic Sciences:** Applied Anatomy and Histology, Applied Physiology and Biochemistry, Applied Pathology, Microbiology, Oral Pathology, Physical and Social Anthropology, Applied Pharmacology and Research Methodology and Biostatistics.

Part-II:

Paper-I : Public Health
 Paper-II : Dental Public Health
 Paper-III : Descriptive and analysing type question

(viii) PEDIATRIC DENTISTRY**Part-I**

Paper I : **Applied Basic Sciences** : Applied Anatomy, Physiology, and Biochemistry, Pathology, Microbiology, Pharmacology, Research Methodology and Biostatistics Growth and Development and Dental plaque, Genetics.

Part-II:

Paper-I : Clinical Pedodontics
 Paper-II : Preventive and Community Dentistry as applied to pediatric dentistry
 Paper-III : Descriptive and analysing type question

(ix) ORAL MEDICINE AND RADIOLOGY**Part-I**

Paper I : **Applied Basic Sciences:** Applied Anatomy, Physiology, and Biochemistry, Pathology, Microbiology, Pharmacology, Research Methodology and Biostatistics

Part-II:

Paper-I : Oral and Maxillofacial Radiology
 Paper-II : Oral Medicine, therapeutics and laboratory investigations
 Paper-III : Descriptive and analysing type question

CHAPTER - VII**GOALS AND OBJECTIVES OF THE CURRICULUM****(25) GOALS._**

The goals of the post-graduate training in various specialities is to train the graduate in Dental Surgery who will,

- (i) practice respective speciality efficiently and effectively, backed by scientific knowledge and skill;
- (ii) exercise empathy and a caring attitude and maintain high ethical standards;
- (iii) continue to evince keen interest in professional education in the speciality and allied specialities whether in teaching or practice;
- (iv) willing to share the knowledge and skills with any learner, junior or a colleague;
- (v) to develop the faculty for critical analysis and evaluation of various concepts and views and to adopt the most rational approach.

(26) OBJECTIVES._

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

The objectives to be achieved by the candidate on completion of the course may be classified as under:-

- (a) Knowledge (Cognitive domain)
- (b) Skills (Psycho motor domain)
- (c) Human values, ethical practice and communication abilities

(a) KNOWLEDGE._

- (i) demonstrate understanding of basic sciences relevant to speciality;
- (ii) describe etiology, pathophysiology, principles of diagnosis and management of common problems within the speciality in adults and children;
- (iii) identify social, economic, environmental and emotional determinants in a given case and take them into account for planned treatment;
- (iv) recognise conditions that may be outside the area of speciality or competence and to refer them to the concerned specialist;
- (v) update knowledge by self study and by attending courses, conferences and seminars pertaining to speciality;
- (vi) undertake audit, use information technology and carry out research in both basic and clinical with the aim of publishing or presenting the work at various scientific gathering;

(b) SKILLS:

- (i) take a proper clinical history, examine the patient, perform essential diagnostic procedures and order relevant tests and interpret them to come to a reasonable diagnosis about the condition;
- (ii) acquire adequate skills and competence in performing various procedures as required in the speciality.

(c) HUMAN VALUES, ETHICAL PRACTICE AND COMMUNICATION ABILITIES.

- (i) adopt ethical principles in all aspects of practice;
- (ii) foster professional honesty and integrity;
- (iii) deliver patient care irrespective of social status, caste, creed, or religion of the patient;
- (iv) develop communication skills, to explain various options available and obtain a true informed consent from the patient;
- (v) provide leadership and get the best out of his team in a congenial working atmosphere;
- (vi) apply high moral and ethical standards while carrying out human or animal research;
- (vii) be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed;
- (viii) respect patient's rights and privileges including patient's right to information and right to seek a second opinion.

27. The following specialties for the post-graduate course to be followed by the university / institute are detailed asunder:-

(i) Prosthodontics and Crown & Bridge:

Prosthodontics and Crown & Bridge is a 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.

(ii) Periodontology:

Periodontology is the science dealing with the health and diseases of the investing and supporting structures of the teeth and oral mucous membrane.

(iii) Oral & Maxillofacial Surgery:

Oral and Maxillofacial surgery deals with the diagnosis and surgical and adjunctive treatment of diseases, injuries and defects of the human jaws and associated oral and facial structures.

(iv) Conservative Dentistry and Endodontics:

Conservative dentistry deals with prevention and treatment of the diseases and injuries of the hard tissues and the pulp of the tooth and associated periapical lesions, alongwith restoration of those teeth to normal form function and aesthetics .

(v) Orthodontics and Dentofacial Orthopedics:

Orthodontics and Dentofacial Orthopedics deals with prevention and correction of oral anomalies and malocclusion and the harmonising of the structures involved, so that the dental mechanisms function in a normal way.

(vi) Oral & Maxillofacial Pathology and Oral Microbiology

Oral & Maxillofacial Pathology and Oral Microbiology deals with the nature of oral diseases, their causes, processes and effects. It relates the clinical manifestation of oral diseases to the physiologic and anatomic changes associated with these diseases.

(vii) Public Health Dentistry

Public Health Dentistry is the science and art of preventing and controlling dental diseases and promoting dental health through organised community efforts.

(viii) Pediatric and Preventive Dentistry

Pediatric and Preventive Dentistry deals with prevention and treatment of oral and dental ailments that may occur during childhood.

(ix) Oral Medicine and Radiology

Oral Medicine is a speciality of dentistry concerned with the basic diagnostic procedures and techniques useful in recognising the diseases of the oral tissues of local and constitutional origin and their medical management.

Radiology is a science dealing with x-rays and their uses in diagnosis and treatment of diseases in relation to orofacial diseases.

28. CLINICAL MATERIAL . _

The minimum requirement of clinical material in each speciality of the post-graduate course is detailed in schedule-VIII of these regulations.

(Dr. Sabyasachi Saha)
Secretary

[F. No. _____]

SCHEDULE – I (See clause (b) of sub-regulation (2) of regulation 11)

MODEL CHECKLIST FOR EVALUATION OF JOURNAL REVIEW 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.	Article chosen was					
2.	Extent of understanding of scope and objectives of the paper by the candidate.					
3.	Whether cross-references have been consulted.					
4.	Whether other relevant publications consulted.					
5.	Ability to respond to questions on the paper / subject.					
6.	Audio – Visual aids used.					
7.	Ability to defend the paper.					
8.	Clarity of presentation.					
9.	Any other observation.					
	Total Score					

SCHEDULE-II

(See clause (c) of sub-regulation (2) of regulation 11)

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	Below Average	Average	Good	Very Good
		0	1	2	3	4
1.	Completeness & Preparation.					
2.	Clarity of presentation.					
3.	Understanding of subject.					
4.	Whether other relevant publications consulted.					
5.	Whether cross-references have been consulted.					
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					

SCHEDULE-III

(See clause (e) of sub-regulation (2) of regulation 11)

(a) MODEL CHECK LIST FOR EVALUATION OF CLINICAL WORK IN Outpatient Department*(To be completed once a month by respective unit heads including posting in other department)*

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.	Over all quality of clinical work.					
	Total Score					

(b) EVALUATION OF 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 points					
6.	Accuracy of general physical examination.					
7.	Diagnosis: Whether it follows logically from history and findings.					
8.	Investigations required.					
	Complete list.					
	Relevant order.					
	Interpretation of investigations.					
9.	Ability to react to questioning Whether it follows logically from history and findings.					
10.	Ability to defend diagnosis.					
11.	Ability to justify differential diagnosis.					
12.	Others.					
	Grand Total					

Note: Please use a separate sheet for each faculty member.**SCHEDULE-IV****(See clause (h) of sub-regulation (2) of regulation 11)****MODEL CHECKLIST FOR EVALUATION OF TEACHING SKILL**

Name of the Trainee :

Date :

Name of the Faculty / Observer :

Sl. No	Items for observation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
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.	Asks questions.					
10.	Answers questions asked by the audience.					

11.	Rapport of speaker with his audience.					
12.	Effectiveness of the talk.					
13.	Uses audio-visual aids appropriately.					

SCHEDULE-V

(See clause (I) of sub-regulation (2) of regulation 11)

(a) **MODEL CHECKLIST FOR DISSERTATION PRESENTATION**

Name of the Trainee :

Date :

Name of the Faculty / Observer :

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

(b) **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	Quality of final output.					
5	Others					
	Total Score					

SCHEDULE-VI

(See clause (I) of sub-regulation (2) of regulation 11)

OVERALL ASSESSMENT SHEET

Date :

Sl. No.	Faculty Member	Name of Trainee and Mean Score									
		A	B	C	D	E	F	G	H	I	J
1											
2											
3											

Signature of Head of the Department

Signature of Principal

Note: The overall assessment sheet used along with the logbook shall form the basis for certifying satisfactory completion of course of study, in addition to the attendance required.

KEY:

Faculty member : Name of the faculty doing the assessment.

Mean score : Sum total of all the scores of checklists.

A, B,..... : Name of the trainee.

SCHEDULE-VII

(See sub-regulations (2) of regulation 14)

EQUIPMENTS**DEPARTMENT: PROSTHODONTICS AND CROWN & BRIDGE**

S. No.	NAME	SPECIFICATION	Quantity		Availability
1.	Electrical Dental Chairs and Units	With shadowless lamp, spittoon, 3 way syringe, instrument tray and motorized suction, micromotor and airtor attachment with handpieces.	One chair and unit per PG student and two chairs with unit for the faculty.		
			1 Unit	2 Units	
2.	Articulators – semi adjustable/ adjustable with face bow		6	12	
3.	Micromotor – (Lab Type can also be attached (fixed) to wall		2	4	
4.	Ultrasonic scaler		2	2	
5.	Light cures		2	2	
6.	Hot air oven		1	1	
7.	Autoclave		2	2	
8.	Surveyor		2	2	
9.	Refrigerator		1	1	
10.	X-ray viewer		1	2	
11.	Pneumatic, Crown bridge remover		2	3	
12.	Needle destroyer		1	2	
13.	Intra oral camera		1	1	
14.	Digital SLR camera		1	1	
15.	Computer with internet connection with attached printer and scanner		1	1	
16.	LCD projector		1	1	
	Clinical Lab for Prosthetics				
1.	Plaster dispenser		2	2	
2.	Model trimmer with carborandum Disc		1	2	
3.	Model trimmer with diamond disc		1	2	
4.	High speed lathe		2	3	
5.	Vibrator		2	4	
6.	Acrylizer		1	2	
7.	Dewaxing unit		1	2	
8.	Hydraulic press		1	1	

9.	Mechanical press		1	1	
10.	Vacuum mixing machine		1	1	
11.	Micro motor lab type		2	3	
12.	Curing pressure pot		1	1	
13.	Pressure molding machine		1	1	
Chrome – Cobalt Lab Equipment					
1.	Duplicator		1	1	
2.	Pindex system		1	1	
3.	Burn-out furnace		1	1	
4.	Welder		1	1	
5.	Sandblaster	Micro and macro	1	1	
6.	Electro – polisher		1	1	
7.	Model trimmer with carborandum disc		1	1	
8.	Model trimmer with diamond disc		1	1	
9.	Model trimmer with double disc (one Carborandum and one diamond disc)		1	1	
10.	Casting machine, motor cast with the safety door closure, gas blow torch with regulator		1	1	
11.	Dewaxing furnace		1	1	
	Induction casting machine with vacuum pump, capable of casting titanium chrome cobalt precision metal		1	1	
12.	Spot welder with soldering, attachment of cable		1	1	
13.	Steam cleaner		1	1	
14.	Vacuum mixing machine		1	1	
15.	Spindle grinder 24,000 RPM with vacuum suction		1	1	
16.	Wax heater		2	3	
17.	Wax carvers (Full PKT Set)		2	3	
18.	Milling machine		1	1	
19.	Stereo microscope		1	1	
20.	Magnifying work lamp		1	1	
21.	Heavy duty lathe with suction		1	1	
22.	Preheating furnace		1	1	
23.	Dry model trimmer		1	1	
24.	Die cutting machine		1	2	
25.	Ultrasonic cleaner		1	1	
26.	Composite curing unit		1	1	
Ceramic Lab Equipment					
1.	Fully programmable porcelain furnace with vacuum pump		1	1	
2.	Ceramic kit (instruments)		3	3	
3.	Ceramic materials (kit)		1	1	
4.	Ceramic polishing kit		2	2	
Implant Equipment					
1.	Electrical dental chair and unit		1	1	
2.	Physio dispenser		1	1	
3.	Implant kit	Minimum 2 systems	2	2	
4.	Implants		10	10	

5.	Prosthetic components		10	10	
6.	Unit mount light cure		1	2	
7.	X-ray viewer		1	2	
8.	Needle destroyer		1	2	
9.	Ultrasonic cleaner capacity 3.5 lts		1	1	
10.	Autoclave programmable for all recommended cycles		1	2	
11.	X-ray machine with RVG		1	1	
12.	Refrigerator		1	1	
13.	Surgical kit/prosthetic kit		2	2	
14.	Educating models		1	1	
15.	Implant removing instruments		1	1	

DEPARTMENT: PERIODONTOLOGY

S. No.	NAME	SPECIFICATION	Quantity		Availability
1.	Dental Chairs and Units	Electrically operated with shadowless lamp, spittoon, 3 way syringe, instrument tray and motorized suction, micromotor attachment with contra angle handpiece, airoter attachment, ultrasonic scaler (Piezo) with detachable autoclavable hand piece	One chair and unit per post-graduate student and Two chairs with unit for the faculty		
			1 Unit	2 Units	
2.	Auto clave (fully automatic) front loading		1	2	
3.	Steel bin		4	6	
4.	Airoter hand pieces		2	2	
5.	UV chamber		1	1	
6.	Formalin chamber		1	1	
7.	W.H.O probe		2	2	
8.	Nabers probe		2	2	
9.	Williams probe		2	2	
10.	UNC-15 probe		4	4	
11.	Gold Man fox probe		1	1	
12.	Pressure sensitive probe		1	1	
13.	Marquis color coded probe		1	1	
14.	Supra gingival scalers	set	2	2	
15.	Sub gingival scaler	set	2	2	
16.	Arkansas sharpening stone		1	1	
	Surgical Instruments				
1.	Routine surgical instrument kit (Benquis periosteal elevator, periotome)	set	2	3	

2.	Surgery trolleys		6	6	
3.	X ray viewer		1	2	
4.	Surgical cassette with sterilisation pouches		4	6	
5.	Electro surgery unit		1	1	
Special Surgical Instruments					
1.	Kirkland's knife	set	1	1	
2.	Orban's knife	set	1	1	
3.	Paquette blade handle		1	1	
4.	Krane kaplan pocket marker	set	1	1	
5.	Mc Calls universal curettes	set	1	1	
6.	Gracey's curettes (No.1-18)	set	2	2	
7.	Mini five curettes	set	1	1	
8.	Cumine scalar		1	1	
9.	Mallet		1	1	
10.	Chisel		1	1	
11.	Oschenbein chisel	straight, curved	1	1	
12.	Schluger bone file		1	1	
13.	Bone fixation screw kit		1	1	
14.	Bone scrapper		1	1	
15.	Bone trephines for harvesting autografts	1 set	1	1	
16.	Bone regenerative materials	Bone graft and GTR membranes	5	5	
17.	Local drug delivery systems	At least two different agents	1 each	1	
18.	Root conditioning agent	At least two different agents	2	2	
19.	Micro needle holder		1	1	
20.	Micro scissors		1	1	
21.	Magnifying loop (2.5 – 3.5)		1	2	
22.	Operating microscope	optional	1	1	
23.	3 rd generation digital probe	optional	1	1	
24.	Bone expander and bone crester	optional	1	1	
25.	Distraction osteogenesis kit	optional	1	1	
26.	Bone mill	optional	1	1	
27.	Bone graft / membrane placement spoon		1	1	
28.	Bone condenser		1	1	
29.	Peizo-surgery unit	optional	1	1	
30.	Centrifuge for PRP/PRF preparation	optional	1	1	
31.	Soft tissue laser (8 watt)		1	1	
32.	Osteotome	set optional	1	1	
MISCELLANEOUS INSTRUMENTS					

1.	Composite gun with material kit		1	1	
2.	Splinting kit with material		2	3	
3.	Composite finishing kit		1	1	
4.	Glass Ionomer cement		1	1	
5.	Digital camera		1	1	
6.	Intra Oral camera		1	1	
7.	Ultrasonic cleaner		1	1	
8.	Emergency kit		1	1	
9.	Refrigerator		1	1	
10.	X-ray viewer		2	2	
11.	LCD projector		1	1	
12.	Computer with internet connection with attached printer and scanner		1	1	
13.	Implant Equipment				
14.	Electrical dental chair and unit		1	1	
	Physio dispenser		1	1	
15.	Implant kit	At least two different systems	2	2	
16.	Implants		10	10	
17.	Implant maintenance kit (plastic instruments)		1 set	1 set	
18.	Implant guide		1	1	
19.	X-ray viewer		1	2	
20.	Needle destroyer		1	2	
21.	Ultrasonic cleaner capacity 3.5 lts		1	1	
22.	Autoclave programmable for all recommended cycles		1	1	
23.	RVG with x-ray machine		1	1	
24.	Refrigerator		1	1	
25.	Surgical kit		2	2	
26.	Sinus lift kit		1	1	
27.	Educating models		1	1	
28.	Implant removing kit		1	1	

DEPARTMENT: ORAL & MAXILLOFACIAL SURGERY

S.No.	NAME	SPECIFICATION	Quantity		Availability
1.	Dental Chairs and Units	Electrically operated with shadowless lamp, spittoon, 3 way syringe, instrument tray and high otorized suction, with micromotor and micro motor attachment	One chair and unit per post-graduate student and Two chairs with unit for the faculty		
			1 Unit	2 Units	
2.	Autoclave	Front loading	2	3	
3.	Fumigators		1	1	
4.	Oscillating saw	With all hand	1	1	

		pieces				
5.	Surgical instruments General surgery kit including tracheotomy kit Minor oral surgery kit Osteotomy kit Cleft surgery kit Bone grafting kit Emergency kit Trauma set including bone plating kit Implantology kit with implants		2 5 1 1 1 1 2 1 2 10	2 10 1 1 1 1 2 1 2 10		
		Minimum systems	2			
6.	Distraction osteogenesis kit		1	1		
7.	Peizo surgical unit		1	1		
8.	Magnifying loops		1	1		
9.	Operating microscope and Microsurgery kit	desirable	1	1		
10.	Dermatomes		1	1		
11.	Needle destroyer		2	3		
12.	Ultrasonic Cleaner capacity 3.5 lts		1	1		
13.	Formalin chamber		1	1		
14.	Pulse oxymeter		1	1		
15.	Ventilator		1	1		
16.	Major operation theatre with all facilities		1	1		
17.	Recovery and Intensive Care Unit with all necessary life support equipments		2 beds	2 beds		
18.	Fibrooptic light		1	1		
19.	Inpatient beds		20	20		
20.	Fiber optic laryngoscope		1	1		
21.	Computer with internet connection with attached printer and scanner		1	1		
22.	LCD projector		1	1		
23.	Refrigerator		1	1		

DEPARTMENT : CONSERVATIVE DENTISTRY AND ENDODONTICS

S.No.	NAME	SPECIFICATION	Quantity		Availability
1.	Dental Chairs and Units	Electrically operated with shadowless lamp, spittoon, 3 way syringe, instrument tray and motorized suction, micromotor, airtor attachment with hand pieces	One chair & unit per post-graduate student and two chairs with unit for the faculty		
			1 Unit	2 Units	
2.	ENDOSONIC HANDPIECES –		2	3	

	Micro endosonic Tips, retro treatment				
3.	Mechanised rotary instruments including hand pieces (speed and torque control) and hand instruments various systems		3	6	
4.	Rubber dam kit		1 per chair	1 per chair	
5.	Autoclaves for bulk instrument sterilization vacuum (Front loading)		2	3	
6.	Autoclaves for hand piece sterilization		1	1	
7.	Apex locators one for every two chairs		2	4	
8.	Pulp tester		2	4	
9.	Equipments for injectable thermoplasticized gutta percha		1	2	
10.	Operating microscopes 3 step or 5 step magnification		1	1	
11.	Surgical endo kits (Microsurgery)		2	2	
12.	Set of hand instruments (specifications required)		1	2	
13.	Sterilizer trays for autoclave		4	4	
14.	Ultrasonic cleaner capacity 3.5 lts		1	1	
15.	Variable Intensity polymerization equipments - VLC units	Desirable	1	1	
16.	Conventional VLC units one for every two chairs		2	4	
17.	Needle destroyer		2	2	
18.	Magnifying loupes one for students and one for faculty		1	2	
19.	LCD projector		1	1	
20.	Composite kits with different shades and polishing kits		2	4	
21.	Ceramic finishing kits, metal finishing kits	In ceramic labs	2	3	
22.	Amalgam finishing kits		2	3	
23.	RVG with x-ray machine developing kit		1	1	
24.	Chair side micro abrasion		1	1	
25.	Bleaching unit		1	1	
26.	Instrument retrieval kits		1	1	
27.	Computer with internet connection with attached printer and scanner		1	1	
28.	Refrigerator		1	1	
29.	Equipments for casting procedures				
30.	Equipments for ceramics		1	1	

	including induction casting machines/ burnout preheat furnaces/ wax elimination furnaces				
31.	Lab micro motor/ metal grinders / sand blasters/ polishing lathes/ duplicator equipment/ vacuum investment equipments		1	1	
32.	Laser (preferably hard tissue)		1	1	
33.	Face bow with semi adjustable articulator		1	2	

DEPARTMENT : ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS

S. No.	NAME	SPECIFICATION	Quantity		Availability
1.	Dental Chairs and Unit	Electrically operated with shadow less lamp, spittoon, 3 way syringe, instrument tray and motorized suction	One chair & unit per PG student and Two chairs with unit for the faculty		
2.			1 Unit	2 Units	
3.	Vacuum /pressure moulding unit		1	1	
4.	Hydrogen soldering unit		1	1	
5.	Lab micromotor		3	5	
6.	Spot welders		3	5	
7.	Model trimmer (Double disc)		2	3	
8.	Light curing unit		2	2	
9.	High intensity light curing unit		1	2	
10.	Polishing lathes		2	3	
11.	Tracing tables		3	5	
12.	SLR digital camera		1	1	
13.	Scanner with transparency adapter		1	1	
14.	X-ray viewer		3	4	
15.	LCD projector		1	1	
16.	Autoclaves for bulk instrument Sterilization vacuum (Front loading)		1	1	
17.	Needle destroyer		1	1	
18.	Dry heat sterilizer		1	1	
19.	Ultrasonic scaler		1	1	
20.	Sets of Orthodontic pliers		3	3	
21.	Orthodontic impression trays		3	5	
22.	Ultrasonic cleaner capacity 3.5 lts		1	1	
23.	Electropolisher		1	1	
24.	Typodonts with full teeth set		3	3	
25.	Anatomical articulator		1	1	

	with face bow attachments				
26.	Free plane articulators		1	1	
27.	Hinge articulators		4	4	
28.	Computer software for cephalometrics		1	1	
29.	Computer with internet connection with attached printer and scanner		1	1	
30.	Refrigerator		1	1	

DEPARTMENT: ORAL & MAXILOFACIAL PATHOLOGY AND ORAL MICROBIOLOGY

S. No.	NAME	SPECIFICATION	Quantity		Availability
			1 Unit	2 Units	
1.					
2.	Dental Chairs and Units	Electrically operated with shadow less lamp, spittoon, 3 way syringe, instrument tray and suction	3	6	
2.	Adequate laboratory glassware's as required for processing of biopsy specimens and staining.	Reasonable quantity should be made available			
3.	Adequate tissue capsules / tissue embedding cassettes	Reasonable quantity should be made available			
4.	Paraffin wax bath	thermostatically controlled	1	1	
5.	Leuckhart pieces		10	10	
6.	Block holders		25	25	
7.	Microtome	Manual	1	1	
8.	Microtome	semi – automated	1	1	
9.	Tissue floatation water bath	thermostatically controlled	1	1	
10.	Slide warming table		1	1	
11.	Steel slide racks for staining		5	5	
12.	Diamond glass marker		2	2	
13.	Research microscope with phase contrast, dark field, polarization, image analyzer , photomicrography attachments		1	1	
14.	Multi head microscope	Penta headed	1	1	
15.	Binocular compound microscope		2 for faculty and one per student	4 for faculty and one per student	
16.	Stereo microscope		1	1	
17.	Aluminum slide trays		5	5	

18.	Wooden / plastic slide boxes		5	5	
19.	Wax block storing cabinet		5,000 capacity	10,000 capacity	
20.	Slide storing cabinet		5,000 capacity	10,000 capacity	
21.	Refrigerator		1	1	
22.	Pipettes		5	5	
23.	Surgical kit for biopsy		3	6	
24.	Immuno histo chemistry lab		1	1	
25.	Computer with Internet Connection with attached printer and scanner		1	1	
26.	LCD projector		1	1	
27.	Desirable Equipment				
28.	Cryostat		1	1	
29.	Fluorescent microscope		1	1	
30.	Hard tissue microtome		1	1	
31.	Tissue storing cabinet (frozen)		1	1	
32.	Microwave		1	1	

DEPARTMENT : PUBLIC HEALTH DENTISTRY

S. No.	NAME	SPECIFICATION	Quantity	Availability	
	Instruments in the department for comprehensive Oral health care programme				
1.	Dental chairs	Electrically operated with shadowless lamp, spittoon, 3 way syringe, instrument tray and motorized suction, micromotor attachment with contra angle handpiece, airoter attachment, ultrasonic scaler (Piezo) with detachable autoclavable hand piece with min 3 tips.	One chair and unit per post-graduate student and one chair with unit for the faculty		
2.			1 Unit	2 Units	
3.	Extraction forceps		4 sets	6 sets	
4.	Filling instruments		4 sets	6 sets	
5.	Scaling instruments	Supra gingival scaling	4 sets	6 sets	
6.	Amalgamator		1	1	
7.	Pulp tester		1	1	
8.	Autoclave		1	1	
9.	X-ray viewer		1	1	

10.	Instrument cabinet		1	1	
11.	LCD or DLP multimedia projector		1	1	
12.	Computer with internet connection with attached printer and scanner		1	1	
13.	For peripheral dental care or field programme				
14.	Staff bus		1	1	
15.	Mobile dental clinic fitted with at least 2 dental chairs with complete dental unit with fire extinguisher		1	1	
16.	Ultrasonic scaler,		1	2	
17.	Ultrasonic cleaner capacity 3.5 lts		1	1	
18.	Compressor	One with chair			
19.	Generator		1	1	
20.	Public address system, audio-visual aids		1	1	
21.	Television		1	1	
22.	Digital Versatile Disc Player		1	1	
23.	Instrument cabinet, emergency medicine kits, Blood pressure apparatus		1	1	
24.	Portable oxygen cylinder		1	1	
25.	Portable chair		1	1	
26.	Refrigerator		1	1	

DEPARTMENT : PAEDODONTICS AND PREVENTIVE DENTISTRY

S. No.	NAME	SPECIFICATION	Quantity		Availability
1.	Dental Chairs and Units	Electrically operated with shadowless lamp, spittoon, 3 way syringe, and motorised suction, micromotor attachment with contra angle miniature handpiece, airtor attachment with miniature handpiece, dental operator stool (40% dental chairs shall be pedo chairs)	One chair and unit per post-graduate student and Two chairs with unit for the faculty		
2.			1 Unit	2 Units	
3.	Pedo extraction forceps sets		3	4	
4.	Autoclaves for bulk instrument sterilization vacuum (Front loading)		1	2	

5.	RVG with intra oral x-ray unit		1	1	
6.	Automatic developer		1	1	
7.	Pulp tester		2	3	
8.	Apex locator		1	1	
9.	Rubber dam kit	One set per student	1	1	
10.	Injectable GP condenser		1	1	
11.	Endodontic pressure syringe		1	1	
12.	Glass bead steriliser		2	4	
13.	Spot welder		2	3	
14.	Ultrasonic scalers		2	4	
15.	Needle destroyer		1	1	
16.	Formalin chamber		1	1	
17.	Ultrasonic cleaner capacity 3.5 lts		1	1	
18.	X-ray viewer		2	3	
19.	Amalgamator		1	2	
20.	Plaster dispenser		2	2	
21.	Dental lathe		1	2	
22.	Vibrator		2	3	
23.	Typodonts	One set per student	1	1	
24.	Soldering unit		1	1	
25.	Band pinching beak pliers		2 Sets	2 Sets	
26.	Proximal contouring pliers		2	3	
27.	Crown crimping pliers		2	3	
28.	Double beak pliers anterior and posterior		2	3	
29.	Lab micro motor		2	3	
30.	Acryliser		1	2	
31.	Magnifying loupes		1	1	
32.	Conscious sedation unit	Desirable	1	1	
33.	Pulse oxymeter		1	1	
34.	Phantom head table with attached Light, Airtor and micro motor	One set per each P.G. Student	1	1	
35.	Computer with internet connection with attached printer and scanner		1	1	
36.	LCD projector		1	1	
37.	Refrigerator		1	1	

DEPARTMENT: ORAL MEDICINE AND RADIOLOGY

S. No.	NAME	SPECIFICATION	Quantity		Availability
1.	Dental Chairs and Units	Electrically operated with shadowless lamp, spittoon, 3 way syringe, instrument tray and suction	One chair and unit per post-graduate student and one chair with unit for the faculty		
2.			1 Unit	2 Units	
3.	RVG with intra oral radiography machine	55-70 kVp with digital compatibility	1	1	

	(FDA Approved)				
4.	Extra oral radiography machine	100 kvp	1	1	
5.	Panoramic radiography (OPG) machine with cephalometric and TMJ attachment with printer	Digital compatibility	1	1	
	Intra-oral camera		1	2	
	Pulp tester		2	4	
	Autoclave		1	1	
	Punch biopsy tool		2	3	
	Biopsy equipment		1	2	
	Surgical trolley		2	2	
	Emergency medicines kit		1	1	
	Extra oral cassettes with intensifying screens (Conventional and rare earth)		4	6	
	Lead screens		2	2	
	Lead aprons		2	2	
	Lead gloves		2	2	
	Radiographic filters (Conventional and rare earth)		1	1	
	Dark room with safe light facility		1	1	
	Automatic radiographic film processors		2	2	
	Radiographic film storage lead containers		1	1	
	Thyroid collars		1	1	
	Digital sphygmomanometer		1	1	
	Digital blood glucose tester		1	1	
	Digital camera		1	1	
	X-ray viewer boxes		2	3	
	Lacrimal probes		2 sets	2 Sets	
	Sialography cannula		2 sets	2 Sets	
	Illuminated mouth mirror and probe		2	2	
	Computer with internet connection with attached printer and scanner		1	1	
	LCD projector		1	1	
	Refrigerator		1	1	

SCHEDULE-VIII
(See regulation 28)

CLINICAL MATERIAL

FOR COLLEGES WITH 50 UG ADMISSIONS
Minimum Requirement (both UG & PG together)

Conservative Dentistry and Endodontics

Unit	Starting MDS	1 st Renewal	2 nd & 3 rd Renewal	Recognition
1 st Unit	35	40	50	50
2 nd Unit	60	70	80	80

Oral Medicine & Radiology

Unit	Starting MDS	1 st Renewal	2 nd & 3 rd Renewal	Recognition
1 st Unit	75	80	90	100
2 nd Unit	110	120	130	130

Oral & Maxillofacial Surgery

Unit	Starting MDS	1 st Renewal	2 nd & 3 rd Renewal	Recognition
1 st Unit	30 (1+4)	35 (1+8)	40 (2+10)	40 (2+10)
2 nd Unit	50 (2+12)	60 (2+14)	70 (2+16)	70 (2+16)

The average of Major Surgeries + Minor Surgeries per week are mentioned above in the brackets

Oral & Maxillofacial Pathology and Oral Microbiology

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	1+2+3	1+3+3	1+3+5	1+3+5
2 nd Unit	2+4+6	2+5+8	2+6+10	2+6+10

* (Biopsy + Cytology + Hematology per week)

Orthodontics & Dentofacial Orthopedics

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
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1 st Unit	15	20	25	25
2 nd Unit	30	35	40	40

Pediatric Dentistry

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	20	25	30	30
2 nd Unit	35	40	45	45

Periodontology

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	30	35	40	40
2 nd Unit	50	60	70	70

Prosthodontics and Crown & Bridge

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	20	25	30	30
2 nd Unit	35	40	50	50

Public Health Dentistry (including Patients in Satellite Clinics)

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	30	35	40	40
2 nd Unit	50	55	60	60

**FOR COLLEGES WITH 100 UG ADMISSIONS:
Minimum Requirement (both UG & PG together)**

Conservative Dentistry and Endodontics

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	50	60	70	70
2 nd Unit	80	90	100	100

Oral Medicine & Radiology

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	100	120	140	150
2 nd Unit	160	170	180	180

Oral & Maxillofacial Surgery

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	40 (1+4)	50 (1+8)	60 (2+10)	60 (2+10)
2 nd Unit	70 (2+12)	80 (2+14)	100 (2+16)	100 (2+16)

The average of Major Surgeries + Minor Surgeries per week are mentioned above in the brackets()

Oral & Maxillofacial Pathology and Oral Microbiology

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	1+3+5	1+6+5	2+6+10	2+6+10
2 nd Unit	3+6+12	3+7+12	3+7+14	3+7+14

* (Biopsy + Cytology + Hematology per week)

Orthodontics & Dentofacial Orthopedics

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	20	25	30	30
2 nd Unit	40	45	50	50

Pediatric Dentistry

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	30	35	40	40
2 nd Unit	50	55	60	60

Periodontology

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	40	50	60	60
2 nd Unit	80	90	100	100

Prosthodontics and Crown & Bridge

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	30	35	40	40
2 nd Unit	50	55	60	60

Public Health Dentistry (including Patients in Satellite Clinics)

Unit	Starting MDS	2 nd Renewal	3 rd & 4 th Renewal	Recognition
1 st Unit	40	45	50	50
2 nd Unit	60	65	70	70

**LOG BOOK
TABLE 1
ACADEMIC ACTIVITIES ATTENDED**

Name :

Admission Year:

College :

Date	Type of activity (Specify Seminar, Journal club, presentation, under-graduate teaching)	Particulars

**TABLE 2
ACADEMIC PRESENTATIONS MADE BY THE TRAINEE**

Name :

Admission Year:

College :

Date	Topic	Type of activity (Specify Seminar, Journal club, presentation, under-graduate teaching)

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 six months of admission

A-Assisted senior surgeon-I year MDS

PA- Performed procedure under the direct supervision of a senior surgeon-II year MDs

PI-Performed independently –III year MDS