

**MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES,**  
**NASHIK**

**SYLLABUS SECOND B.D.S.**

**Candidate will be examine in the following subjects :**

1. General Pathology, Microbiology and Parasitology
2. General and Dental Pharmacology
3. Oral and Dental Anatomy, Physiology, Histology & Embryology
4. Preclinical Prosthodontics (Practicals)
5. Preclinical Conservative Dentistry (Practicals)

**Subject 1: General Pathology, Microbiology and Parasitology**

**A. General Pathology**

Lectures -	45 Hours
Practicals and demonstration	60 Hours
Total Duration	105 Hours (Minimum)

I. 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.

  
**Principal**  
M.I.D.S.R. Dental College,  
LATUR


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**

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- Neelsen's staining.
- i) Histopathology, practicals and specimans, demonstrations.

  
**Principal**  
M.I.D.S.R. Dental College,  
LATUR

## Subject 2 : General & Dental Pharmacology

Duration of syllabus

40 Hrs (Minimum)

1) General Pharmacology

- Scope
- Nature & Sources
- Dosage form & routes of administration
- Prescription writing
- Pharmacokinetics
- Mode of Action
- Factors modifying drug action
- Adverse drug reaction
- Drug Interaction

2) CNS

- General Anaesthetics
- Hypnotics
- Analgesics
- Psychotropics
- Antiepileptics
- Anesthetics

3) ANS

- Sympathomimetic
- Anti adrenergic drug
- Parasympathomimetics
- Parasympatholytics
- Histamine
- Antihistamines

4) CVS

- Cardiac stimulant(Glycosides)
- Anti anginal drugs
- Anti hypertensive drugs
- Vasopressors & Treatment of shock

5) Drug acting on blood

- Coagulants
- Anti coagulants



**Principal**  
M.I.D.S.R. Dental College,  
LATUR

**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
  - Therapeutic action
  - Toxic actions
  - Contraindications
  - Indications
- 9) Criticism & Correction of Prescription on basis of drug interaction.
- 10) Drugs of Choice.

Only for training  
and not for  
University  
Examination

**EXAMINATION PATTERN :**

Theory (Written ) Paper: Maximum 60 Marks Duration : 3Hours

Section -A- MCQ (20 Question) 20 Marks

**Section - B**

Q .1 Short Answer Question (SAQ) 10 Marks

Q.2. One Long question/ 2 Short Notes (2 x 5) 10 Marks


**Section -C**

Q.3 Short Answer Question (SAQ) 10 Marks

Q. 4 One Long Question /2 Short Notes (2x5) 10 Marks

**ORALS:**

GRAND ORAL FOR 20 MARKS, to be added to Practical. It is conducted separately by examiners and submitted in a separate sheet as per the proforma supplied by University (Appendix -F)

  
**Principal**  
M.I.D.S.R. Dental College.  
1979

- 5) Detail Morphology. Chronology. Occlusion (including its controlling factors) of primary & permanent dentitions. Differences between primary and permanent dentitions.
- 6) Physiology of mastication, deglutition, speech and sensation with their relevance to oral structures.
- 7) Composition & Physiology of Saliva and their influencing factors.
- 8) Chemical composition and Physical properties of enamel dentine, cementum & bone.
- 9) Broad outline of bio-chemistry of oral tissues.

### **B) Examination (Theory Pattern)**

Written -Theory -Paper shall be of 3 hours duration of maximum 60 marks.

#### **Section A: MCQ --- 20 Marks.**

20 questions shall be answered by students in a separate answer sheet within first 20 minutes. This answer sheet to be collected by invigillator immediately after 20 minutes completion.

#### **Section B & C : 20 Marks each.**

Q.No.1            S.A.Q. 5 SAQ x 2 Marks each            -10Marks

Q.No.2            L.A.Q. 1 Essay type Or 2 Short Notes            -10 Marks

Section B should cover syllabus of topics No. 1,2,3, & 4

Section C should include the rest of the syllabus.

### **C. PRACTICALS**


1) Demonstration of Various methods of Histological preparation of

a) Oral soft tissues

b) Ground decalcified Sections of teeth and Jaws

2) Brief introduction to Microscope and Microscopy

3) Microscopic study (Histological and Histochemical) of normal oral and dental tissues and their drawing in Journals. .

  
**Principal**  
M.I.D.S.R. Dental College,  
LATUR

#### **Subject 4 : PRECLINICAL PROSTHODONTICS (PRACTICALS)**

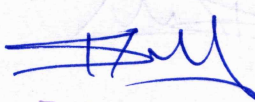
Duration of syllabus: First and Second Year B.D.S.

(360 Hours in Two Years period)

##### **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.

  
**Principal**  
M.I.D.S.R. Dental College

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 :**

**I) Internal assessment. 20 Marks**

- |                           |    |   |
|---------------------------|----|---|
| a) First test of 5 Marks  | -- | Making of special tray/Occlusion rims   |
| b) Second test of 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) |
| d) Fourth test of 5 Marks | -- | 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 & fourth 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: 80 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 | .25 Marks   | } Duration<br>3 Hrs. |
| b) Waxing and carving (Gingival tissue morphology)..        | 15 Marks    |                      |
| <u>Exercise II</u> c) Abutment preparation to receive crown | .20 Marks.  | } Duration<br>2 Hrs. |
| d) Wax pattern for that preparation                         | ..10 Marks. |                      |
| e) Journals/Record of the-two Year work                     | ..10 Marks. |                      |

## DEMONSTRATIONS ONLY

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

### EXAMINATION PATTERN

#### I. Internal assessment. 20 Marks.

- a) First Test of 5 Marks. ..Cavity Preparation & filling on plaster models
- b) Second Test of 5 Marks . .Cavity preparation class II on ivorine/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.
- d) Fourth test of 5 Marks ...Class I inlay preparation of wax pattern on ivorine/extracted tooth.

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

#### II. Practical Examination. 80 Marks

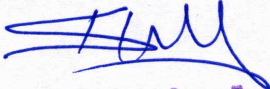
To be conducted along with university practical examination of other subjects. Break-up is as under.

Exercise . I : 2 Hours duration.

- |  |          |
|--|----------|
| i) Class II cavity preparation on ivorine/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 ivorine/ natural tooth | 20 Marks |
| ii) Wax pattern for inlay                                     | 10 Marks |
| iii) Records/ Journals  | 10 Marks |

  
**Principal**  
M.I.D.S.R. Dental College,  
LATUR

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	10	80

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	80

Subject : PRE-CLINICAL PROSTHODONTICS PRACTICAL

Roll No.	Teeth Arrangement	Waxing & Carving	Abutment Preparation For Crown	Wax Pattern	Journal	Total
	25	15	20	10	10	80

Subject : PRECLINICAL CONSERVATIVE DENTISTRY

Roll No	Caviti Amalgam Preparation	Lining	Filling	Inlay	Wax pattern	Journal	Total
	20	10	15	20	5	10	80

**External Examiners :**

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

**Internal Examiners :**

Name : \_\_\_\_\_

Signature : \_\_\_\_\_


(Common to All)

  
Principal  
M.I.D.S.R. Dental College,  
LATUR

Practical .. 50 Marks  
Including Oral

Marks obtained by the candidate out of 50 to be divided by 10 and to be entered in proforma even in fraction like 35/50 will be shown as 3.5 out of ;5 marks.

- 4) The marks obtained by the candidate even with fractions. The fraction, if any, is now to be converted into nearest high round figure when the fraction is 0.5 or more.
- 5) All the records of this examination will have to be maintained by the Heads o Departments and will have to verification.
- 6) All records of this examination shall be preserved up to the commencement of next university examination of that batch by head of Department in consoltation with the Dean.
- 7) a) The marks obtained by candidate should be submitted in controller of examination Internal Assessment Examination.  
b) The marks of all four internal assessment tests shall be submitted to the controller of examination in the proforma 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.
- 8) 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
- 9) 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.
- 10) 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-

  
**Principal**  
M.I.D.S.R. Dental College,  
LATUR

APPENDIX - F

MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK

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

Subject : \_\_\_\_\_

Name of the Centre: \_\_\_\_\_

Date of Practical Conduction: \_\_\_\_\_

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

: ORAL EXAMINATION MARKS :

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

External Examiners :


Internal Examiners :

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

  
**Principal**  
M.I.D.S.R. Dental College,  
LATUR

Appendix – D

MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK

INTERNAL ASSESSMENT MARKS FOR ....B.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 20	Net total (after rounding the fraction, if any) Marks obtained out of 20	In Words (Out of Twenty)	Signature of Student
				First Max 5	Second Max 5	Third Max 5	Fourth Max 5				

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

Date : \_\_\_\_\_

\_\_\_\_\_  
 Signature of Subject Teacher

\_\_\_\_\_  
 Signature of Head of the Department

  
**Principal**  
 M.I.D.S.R. Dental College,  
 LATUR

3	Human Oral Anatomy (Including Embryology and Histology)	i) Practical/Clinical ii) IA Practical/Clinical iii) Practical/Clinical + Internal Assessment (Practical/Clinical)	80 20 100	40 - 50								
		i) Theory (Written) ii) Oral iii) Theory + Oral iv) Internal Assessment (Theory) iv) Theory + Oral + Internal Assessment (Theory)	60 20 80 20 100	- - 40 - 50		200		150				
4	Pre-clinical Prosthodontics Practicals	i) Practical/Clinical ii) IA Practical/Clinical iii) Practical/Clinical + Internal Assessment (Practical/Clinical)	80 20 100	40 - 50								
		i) Practical/Clinical ii) IA Practical/Clinical iii) Practical/Clinical + Internal Assessment (Practical/Clinical)	80 20 100	40 - 50		100		75				
5	Pre-Clinical Conservative Practicals	i) Practical/Clinical ii) IA Practical/Clinical iii) Practical/Clinical + Internal Assessment (Practical/Clinical)	80 20 100	40 - 50		100		75				
Grand Total											800	600

  
**Principal**  
 M.I.D.S.R. Dental College,  
 LATUR