Frontier Dental College

Study Guide

(Adapted from Bahria University Guide)

2nd Year BDS





FDC STUDY GUIDE

The study guide serves as a useful handy resource, helping you to navigate your journey at FDC.

The study guide is more than an academic guide.

It not only highlights what, as a student, you should aim to achieve as you work through the curriculum, but also provides essential information about various administrative protocols that you as students of Frontier Dental College are expected to follow.

Vision Statement of FMDC

To become an internationally recognized medical institution that contributes towards development of community health through excellence in medical education.

Mission Statement of FDC

To develop high skilled and motivated dental professionals with the application of basic knowledge equipped with ethical values and ability to provide national and international evidence based dental practice.

FRONTIER DENTAL COLLEGE ABBOTTABAD

PROGRAM LEARNING OUTCOMES (PLO's)

Sr.No	DENTAL PROGRAM LEARNING OUTCOMES	EDUCATIONAL DOMAIN
	At the end of Dental Program the graduates will be able to:	
1.	**Recognize and Apply Basic Scientific Principles** Demonstrate understanding and application of fundamental scientific principles necessary for providing high-standard oral health care.	**Cognitive (Knowledge)**
2.	**Identify and Uphold Patient Rights:** Identify and uphold the rights of dental patients, ensuring respectful and ethical treatment.	**Cognitive (Knowledge)**
3.	**Adhere to Ethical Standards** Identify and adhere to ethical rules and patients' rights within the dental profession, promoting integrity and professionalism.	**Cognitive (Knowledge)**
4.	**Diagnose and Treat Common Oral/Dental Diseases:** Discuss and implement strategies for diagnosis and treating common oral and dental diseases prevalent in the community.	**Cognitive (Knowledge)**
5.	**Interpret Medical/Dental Histories and Make Referrals:** Interpret efficiently medical and dental histories/reports, making appropriate referrals when necessary.	**Cognitive (Knowledge)**
6.	**Practice Evidence-Based Dentistry:** Demonstrate the application of evidence-based practices in dental clinics to ensure high-quality oral health care.	**Psychomotor (Skill)**
7.	**Engage in Lifelong Learning:** Exhibit lifelong learning abilities, including critical thinking, creativity, and staying updated with new information and developments in dental care.	**Psychomotor (Skill)**
8.	**Perform Dentistry Skills with Professionalism:** Perform dental procedure efficiently while demonstrating good professional attitude and communication skills.	**Affective (Attitude)**
9.	**Participate in Dental Research:** Display a proactive interest in dental research activities to contribute to the advancement of the field.	**Affective (Attitude)**

SECTION 3: PROGRAM STRUCTURE AND OVERVIEW

THE MODULAR SYSTEM

Organization of modular curriculum and teaching

a. Each Academic Year is divided into 3 Modules of 3 months' duration each

- **First Year - Modules - 1,2,3**
- **Second Year - Modules - 4,5,6**
- **Third Year - Modules - 7,8,9**
- **Final Year - Modules - 10,11,12**

b. Learning objectives for each module are written down in the study guide issued at the beginning of each academic year to each student. Curriculum for each module can be provided on request.

c. A schedule is issued for each module re-enforced by a weekly schedule issued 2 weeks in advance of the teaching dates.

d. This includes lecture, CBL, Practical's, Demonstrations, Ward Clinics, and Classes in Skills Lab, Self-Study, and Library period.

e. The assessment schedules i.e., end of modules tests as well as period of preparation leave and timing of OSCE/ OSPE is given in the above schedule.

f. The assessment result is displayed on departmental notice boards and recorded in the Examinations Department FDC.

LEARNING STRATEGIES

- **Interactive Lectures**

The traditional lecture system is used to introduce a subject and discuss the broad concepts in that specific field of study. Interactive lectures to smaller groups remain an effective and essential way of teaching. More recent methods of learning and teaching, such as case-based learning and small group-based problem-solving sessions are also employed.

- **Small Group Based Learning**

Small group and tutorial sessions are regularly held to enable students to discuss the details of a lecture topic. Students are expected to prepare presentations on applied topics and discuss their implications with their fellow students. The lecturer acts as a facilitator. By participating in these group discussions, students can interact and learn from one another such as PBL, CBL and TBL etc.

- **Hands on Training**

Being in final year students will deal daily with patients in OPD, to gain, enhance and polish their clinical knowledge and skills. Lectures and tutorials will regularly be held for providing clinical orientation on the subjects.

- **Mini-CEX** (**Mini Clinical Evaluation Exercise**) and **DOPS (Direct Observational Procedural Skills):**

These are work place based assessment tools (WPBAs) used in clinical settings by supervisors. In Mini-CEX, the trainee is evaluated regarding history taking, physical examination skills, communication skills, clinical judgment, professionalism, organization/efficiency, and overall clinical care. In DOPS, the **focus lies on procedural skills** followed by feedback.

- **Community-based Learning**

FDC is committed to provide the environment and training that would enable professionals to successfully contribute to the improvement of the health sector, particularly in less privileged communities under the Community-Oriented Medical Education Program.

The university involves its students in research-developing work in these designated communities. Students are encouraged to participate in the preventive and curative care and management of patients and their families in Primary Health Care field settings.

- **Problem Based Learning (PBL)**

PBL promotes active learning and critical thinking in small collaborative groups. In PBL, problem introduces a real patient or as hypothetical case. Students identify the key elements of the case, develop and test hypothesis based on pathophysiological mechanisms, decide on diagnosis, and discuss principles of management. Content of PBL reflects horizontal integration of curriculum. The development of PBL cases is a challenging process, as each case must reflect a defined set of learning objectives, have face validity, suit the student's stage of maturity, and fit with restraints of time and resources. A typical PBL tutorial consists of usually 8 to 10 students and a tutor, who facilitates the session with minimum interference. The PBL tutorials comprised of three sessions of two hours and the time is scheduled in timetable approximately two weeks before.

The PBL comprised of seven-jumps (Maastricht) such as clarifying terms, defining problem(s), brainstorming, structuring and hypothesis, learning objectives, independent study, and synthesis/presentation.

- **Case-Based Learning (CBL)**

Case-based learning (CBL) is an adaptation of the PBL process and more generally used in clinical context to develop clinical reasoning and judgment. Written case studies, prepared by tutors and students are required to work together to identify clinical problems, prepare differential diagnoses and suggest potential investigations and treatment. Students set their own learning objectives and identify the learning resources required to confirm or refute their diagnostic possibilities. The CBL format is flexible. CBLs are overseen by facilitators who guide the students in case they are not on the right track as unlike PBLs, the CBL session must be completed in one day.

- **Team Based Learning**

Team Based Learning provides students with resource effective, authentic experience of working in teams to solve real life clinical problems.

COMPETENCIES AND LEARNING OUTCOMES OF DENTAL UNDER-GRADUATES

COMPETENCIES

1.Skillful
2.Knowledgeable
3.Community health promoter
4.Critical thinker
5.Professional
6.Researcher
7.Leader

i. Skillful:

Under Graduates must be competent to:

1.1 Apply appropriate interpersonal and communication skills.

1.2 Apply psycho-social and behavioral principles in patient-centered health care.

1.3 Communicate effectively with individuals from diverse populations.

1.4 Apply basic dental morphology and application of dental materials on patients.

ii. Knowledgeable

A. Assessment, Diagnosis, and Treatment Planning

Under Graduates must be competent to:

2.1 Manage the oral health care of infant, child, adolescent, and adult, as well as unique needs of women, geriatric, and special needs patients.

2.2 Identify, prevent, and manage trauma, oral diseases, and other disorders.

2.3 Obtain, and interpret patient / medical data, including a thorough intra/extra oral examination, and use these findings to accurately assess and manage patients.

2.4 Select, obtain, and interpret diagnostic images for the individual patient.

2.5 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.

2.6 Formulate a comprehensive diagnosis, treatment, and/or referral plan.

B. Establishment and Maintenance of Oral Health

Under Graduates must be competent to:

2.7 Follow universal infection control guidelines for all clinical procedures.

2.8 Manage pain and anxiety in the dental patient.

2.9 Diagnose temporo-mandibular joint disorders.

2.10 Manage periodontal diseases.

2.11 Develop and implement strategies for the clinical assessment and management of caries

2.12 Manage restorative procedures that preserve tooth structure, replace missing or defective tooth structure, maintain function, are esthetic, and promote soft and hard tissue health.

2.13 Manage developmental or acquired occlusal abnormalities.

2.14 Manage the replacement of teeth for the partially or completely edentulous patient.

2.15 Manage pulpal and peri-radicular diseases.

2.16 Manage oral surgical treatment needs.

2.17 Manage medical and dental emergencies.

2.18 Manage patient abuse and/or neglect.

2.19 Manage substance abuse.

2.20 Evaluate outcomes of comprehensive dental care.

2.21 Manage oral mucosal and osseous diseases.

iii. Community Health Promoter

Under Graduates must be able to:

3.1 Demonstrate skill in providing prevention, intervention, and educational strategies.

3.2 Demonstrate competency in promoting health and managing various oro-facial diseases while working in a team.

3.3 Recognize and appreciate the need to contribute to the improvement of oral health beyond those served in traditional practice settings.

2. Critical Thinker

Under Graduates must be competent to:

4.1 Evaluate and integrate emerging trends in health care as appropriate.

4.2 Apply critical thinking and problem-solving skills while dealing with patients.

4.3 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.

3. Professional

Under Graduates must be competent to:

5.1 Apply ethical and legal standards in the provision of dental care.

5.2 Practice within one's scope of competence and consult with or refer to professional colleagues when indicated.

4. **Researcher**

Under Graduates must be competent to:

6.1 Apply the current research for innovations in treatment, keeping at par with international standards

6.2 Conduct independent research based on the community requirements

5. **Leader**

Under Graduates must be able to:

7.1 Manage self, taking responsibility and utilizing the time to the best of his/her ability.

7.2 Demonstrate leadership skills effectively while working in a group or in a team.

7.3 Recognize and comply with the working system of any Institute.

SECTION 4: DEPARTMENTS & ACADEMIC SCHEDULES

INTRODUCTION TO DEPARTMENTS

Department of Community & Preventive Dentistry

Department of Science of Dental Materials

Department of Pre-clinics (Prosthodontics and Operative Dentistry)

Department of Pharmacology

Department of Pathology

MODULE IV

(Community & Preventive Dentistry, Dental Materials, Prosthodontics, Pharmacology, Pathology)

At the end of the module, student should be able to:

	COMMUNITY & PREVENTIVE DENTISTRY	Teaching Method	Assessment Mode
1.	Define dental public health and its significance	IL, SGD	SAQs,Viva
2.	Compare relevance of public health to clinical practice	IL, SGD	SAQs
3.	Discuss criteria for public health problem	IL, SGD, PBL	BCQs, SAQs, PBL, Viva,
4.	Justify dental caries, periodontal disease and oral cancer as a public health problem	IL, SGD, PBL, FV	BCQs, SAQs, PBL, Viva
5.	Explain features of biomedical model of health	IL, SGD	SAQS
6.	Discuss Alma Ata Declaration along with its features	IL, SGD, FV	BCQs, SAQs, OSPE,Viva,
7.	Explain the salient features of Ottawa Charter	IL, SGD, PBL, FV	BCQs, SAQs, OSPE,Viva,PBL
8.	Describe core themes of dental public health	SGD	SAQs,Viva,
9.	Explain the implications of dental public health	SGD	SAQs, , Viva
10.	Describe the limitations of life style approach	SGD	BCQs, SAQs, Viva,
11.	Describe determinants of oral health	IL, SGD, PBL,	BCQs, SAQs, OSPE, PBL, Viva,
12.	Discuss the basic package of oral care (BPOC) with its examples	IL, SGD, PBL, FV, VD,labskills	BCQs, SAQs, OSPE, PBL,Viva,
13.	Define health, disease, disability, illness & ill health	IL,	SAQs, Viva,
14.	Compare health with disease & illness	SGD	SAQs
15.	Discuss dimensions of health	IL, SGD	BCQs, SAQs, Viva,
16.	Understand different concepts and taxonomy of need	IL, SGD	BCQs,SAQs,Viva
17.	Define inequalities in oral health	IL	BCQs, Viva
18.	Illustrate conceptual model of oral health	SGD	SAQs, OSPE
19.	Define risk	SGD	BCQs, Viva
20.	Describe principles of strategy design	IL, SGD	SAQs, Viva,
21.	Explain different strategy approaches with examples	IL, SGD,PBL,	BCQs,SAQs,Viva
22.	Define and classify epidemiological studies	IL, SGD	BCQs,SAQs,Viva

23.	Describe the scope of epidemiology	SGD	SAQs, Viva,
24.	Define epidemiological triad and discuss its factors	IL, SGD	BCQs, SAQs, Viva,
25.	Compare different types of epidemiological studies in detail	IL,	BCQs, SAQs, OSPE, Viva,
26.	Discuss descriptive studies	IL,	BCQs, SAQs, VIVA,
27.	Discuss analytical studies	IL,	BCQs, SAQs, VIVA,
28.	Discuss and calculate different measures applied in epidemiology surveys	SGD, Practical	BCQs, SAQs, OSPE, Viva,
29.	Define screening and its aims	IL	BCQs,SAQs,Viva
30.	Describe the principles and its type of test	IL	BCQs, SAQs, Viva,
31.	Define causation and association	SGD	SAQs, Viva,
32.	Explain Bradford Hill's Criteria	IL,	BCQs, SAQs, Viva,
33.	Describe etiology , natural history & epidemiology of dental caries and early childhood caries	IL, SGD, PBL, Practical, VD, OPD, FV	BCQs, SAQs, OSPE, PBL,Viva,
34.	Recognize etiology, natural history & epidemiology of periodontal disease	IL, SGD, PBL, Practical, VD, OPD, FV	BCQs, SAQs, OSPE, PBL,Viva,
35.	Discuss etiology, natural history & epidemiology of oral cancer	IL, SGD, PBL, Practical, VD, OPD, FV	BCQs, SAQs, OSPE, PBL,Viva,
36.	Explain etiology, natural history & epidemiology of dental fluorosis	IL, SGD, PBL, Practical, VD, OPD, FV	BCQs, SAQs, OSPE, PBL,Viva,
37.	Discuss different types of Traumatic Dental Injuries	IL,SGD	BCQs, SAQs
38.	Discuss different types of non-carious lesions	IL,SGD	BCQs, SAQs
39.	Define index and its objective	IL,	SAQs, Viva
40.	State the properties of an ideal index	IL,	SAQs, Viva
41.	Describe the purpose and uses of an index	IL,	SAQs, Viva
42.	Enumerate and discuss different dental indices for oral diseases (PI, GI, OHI, CPITN)	SGD,	BCQs, SAQs, Viva,
43.	Discuss limitations of existing indices	IL,	SAQs, Viva,
	Behavioral Science		
44.	Define sociology	IL,	BCQs, SAQs, Viva,
45.	Discuss structural & functional aspects of society	IL,	BCQs, SAQs, Viva,

46.	Explain role of social sciences	IL,	BCQs, SAQs, Viva,
47.	Identify determinants of health behavior	IL,	BCQs, SAQs, Viva,
48.	Identify different tooth notation systems	SGD, Practical	OSPE,
49.	Predict age on clinical pictures and study models	SGD, Practical	OSPE
50.	Demonstrate ergonomics in clinical practice	SGD, Practical	OSPE,
51.	Perform exercises on patients in the out patients department	SGD, OPD	OSPE
52.	Execute examination of institutionalized population like school children	FV,	OSPE
53.	Calculate different measures of oral diseases used in epidemiology	Practical	OSPE
54.	Calculate DMFT measurement	SGD, Practical, FV	OSPE
55.	Describe dental caries indices such as ICDAS & PUFA	SGD	Viva
56.	Calculate CPITN and other periodontal measurements (PI, GI, OHI, CPITN)	SGD, Practical, FV	OSPE
57.	Identify the different types of dental fluorosis	SGD, Practical, FV	OSPE
	Research Methodology		
58.	Identify a research topic	SGD, Practical	Assign
59.	Formulate research hypothesis using PICO	SGD, Practical	Assign
60.	Review the existing literature on selected topic	SGD, Practical	Assign
61.	Draft the research synopsis	SGD, Practical	Assign, CP
	SCIENCE OF DENTAL MATERIALS		
62.	Understand the structure of tooth and supporting tissues	IL	BCQs, SAQs,Viva
63.	Enlist tooth numbering systems	IL	BCQs, SAQs.
64.	Enlist different groups of dental materials and their nomenclature	IL	BCQs
65.	Define 'the science of dental materials'	IL	Viva
66.	Identify the role of ADA specification concerning dental materials	IL	BCQs, Assign
67.	Explain the selection criteria of dental materials	IL	BCQs, Viva, Assign
68.	Identify different dental appliances, prosthesis and restorations	PBL, SD	OSPE, PBL, Viva.
69.	Enlist the properties of dental materials during storage, mixing, manipulation and setting	IL	BCQs, SAQs, Assign, Viva
70.	Differentiate between mixing time, working time and setting time	IL	BCQs, SAQs, OSPE

71.	Enlist the mechanical properties of dental materials	PBL	BCQs, SAQs, OSPE, Assign, PBL, Viva.
72.	Define the following terms: stress, strain, yield stress, proportional limit, modulus of elasticity, resilience, toughness, ductility, malleability, impact strength, fatigue, hardness, creep , flow	IL, SD	BCQs, SAQs, OSPE, PBL, Viva, Assign
73.	Relate stress and strain through graph	IL	SAQs, Assign
74.	Differentiate between abrasive wear ,erosion and solubility	IL	BCQs, SAQs, Viva.
75.	Differentiate between elasticity and viscoelasticity	IL	BCQs, SAQs, Viva.
76.	Differentiate between creep and flow	IL	BCQs, SAQs, Viva
77.	Define vicker's hardness number	IL	BCQs, SAQs
78.	Define rheology	IL	BCQs, SAQs
79.	Discuss the relationship of shear rate with flow index	IL	SAQs
80.	Enlist the thermal properties characterizing dental materials	IL	BCQs, SAQs, Viva, Assign.
81.	Define adhesion , adherend and adhesive	IL	BCQs, SAQs, Viva
82.	Explain bonding of restorative materials through macromechanical retention,micromechanical retention and chemical adhesion	IL	BCQs, SAQs, OSPE, Viva, Assign,
83.	Correlate contact angle, wetting and surface tension	IL	BCQs, SAQs, OSPE
84.	Enlist factors which affect dimensional stability of dental materials	IL	SAQs, Assign, CQ
85.	Define hue, chroma and value	IL	BCQs, SAQs, OSPE, Assign, CQ
86.	Discuss corrosion and tarnish	IL	BCQs, SAQs, Viva,
87.	Discuss biological properties and health hazards of various materials	IL	SAQs, CQ
88.	Discuss chemical properties related to the chemical stability of materials	IL	BCQs, SAQs, CQ
89.	Enlist the types of dental gypsum products as identified by the ISO standard	IL	BCQs, SAQs, OSPE, Viva, Ppt, CQ. competition
90.	Discuss the ideal requirements for dental cast materials	IL	BCQs, SAQs, Viva,
91.	Differentiate between model and die	IL, SD	BCQs, SAQs, OSPE,
92.	Discuss the composition and formation of dental plaster and stone	IL	BCQs, SAQs, OSPE, Assign, Viva, PW

93.	Differentiate between the properties of dental plaster and stone	IL, SD	BCQs, SAQs, OSPE, , Viva, PW
94.	Enlist the types of dental gypsum products as identified by the ISO standard	IL	BCQs, SAQs, OSPE, Assign, Viva
95.	Discuss and demonstrate the manipulation of dental plaster and stone	IL, SD, VD	BCQs, Assign, Viva, PW
96.	Explain the setting reaction of dental gypsum products	IL	BCQs, SAQs,Assign, Viva, PW
97.	Enumerate the factors which affect setting time of dental plaster and stone	IL	BCQs, SAQs, Viva
98.	Discuss the advantages and disadvantages of gypsum to be used in making die and models	IL	BCQs, SAQs, Viva
99.	Enlist alternate materials for making dental casts	IL	SAQs, OSPE, Viva
100.	Discuss faults in casts	IL	BCQs, SAQs, Viva, Assign
101.	Highlight methods for disinfection of casts	IL	BCQs, SAQs ,OSPE
102.	handling of dental plaster and stone through video demonstration	VD	PW
103.	Demonstrate manipulation of dental plaster and stone in laboratory	SD	PW
104.	Fabricate a ¾ plaster slab in laboratory	SD	PW
105.	Effect of temperature of water on the setting reaction of gypsum	IL, SD	SAQs, Viva, PW
106.	Classify and identify the different types of dental waxes and discuss their clinical applications.	IL	BCQs, SAQs ,OSPE
107.	Discuss the composition of dental waxes	IL	BCQs, SAQs, Viva
108.	Discuss the general properties of dental waxes	IL	BCQs, SAQs, Viva
109.	Discuss the specific types, properties and uses of denture modeling wax	IL	BCQs, SAQs ,OSPE, Viva
110.	Discuss the specific types, properties and uses of inlay wax	IL,VD	BCQs, SAQs ,OSPE,
111.	Demonstrate manipulation of modeling wax in laboratory	SD	PW
112.	Outline the steps in making a cast restoration	PBL	BCQs, SAQs ,OSPE, PBL
113.	Discuss the procedure of investment for casting alloys	IL,VD	BCQs, SAQs ,OSPE, Assign,
114.	Discuss the requirements of investments for alloy casting procedures	IL	SAQs , Assign, Viva
115.	Enlist the three main groups of investment material	IL	SAQs,OSPE
116.	Discuss their composition, types, setting reaction, properties and uses	IL	BCQs, SAQs,Viva
117.	Discuss in detail the compensating expansion taking place in each of the investment materials and relate it to their clinical use	IL	BCQs, SAQs,OSPE

118.	Compare the properties of investment materials	IL	BCQs, SAQs
119.	State the types of polymerization reactions	IL	BCQs, SAQs,OSPE, Viva
120.	Discuss the steps taking place in each type of polymerization reaction	IL	SAQs,OSPE, Viva,
121.	Correlate the molecular weight and degree of chain branching with propertiesof the resulting polymer	IL	BCQs, SAQs, Viva, Assign
122.	Give examples of dental materials for each type of polymerisaton	IL	SAQs,OSPE, Viva, Assign
123.	Discuss the physical changes occurring during polymerisation including the changes in phase ,temperature and dimension	IL	BCQs, SAQs,OSPE, Viva
124.	State and explain the factors which control the structure and properties of polymers	IL	BCQs, SAQs, Viva,
125.	Define glass transition temperature	IL	BCQs, Viva,
126.	Discuss the methods of fabricating polymers	IL	SAQs, Assign
127.	State the materials available for construction of denture base	IL	SAQs,OSPE, Viva
128.	Discuss the ideal requirements for denture base polymers	IL	SAQs , Viva, Assign
129.	Classify acrylic denture base materials according to the ISO standard	IL	SAQs, Viva
130.	Discuss the composition of acrylic denture base materials	IL	SAQs,OSPE,
131.	Discuss the manipulation/mixing of heat cure acrylic resin	IL, SD	PW
132.	Identify the transitional stages which occur after mixing heat cured acrylic resin	IL, SD	SAQs,OSPE, PW,
133.	Discuss dough moulding technique for making denture base	IL	BCQs, SAQs, Viva
134.	Differentiate between doughing time and working time	IL	SAQs,CQ
135.	Discuss the curing cycles for heat cured acrylic resin	IL, SD	BCQs, SAQs,OSPE, Viva, PW
136.	State the possible reasons for warpage and its solution	IL	SAQs, Viva
137.	Give reasons for crazing in acrylic resin	IL	BCQs, SAQs,OSPE, Viva

138.	Discuss the different types of porosities which may occur in set acrylic resin and suggest ways to avoid their formation	IL	BCQs, SAQs, OSPE, Viva
139.	Differentiate between injection moulding and dough moulding/compression moulding technique	IL	SAQs, CQ, Assign
140.	Discuss the uses of different types of acrylic resin	IL, SD	SAQs, Viva
141.	Enlist and explain the properties of acrylic resin	IL	SAQs,OSPE, Viva, Assign
142.	Discuss the advantages of modified acrylic resins	IL	SAQs,CQ,Assig n
143.	State methods for disinfection of acrylic prosthesis	IL	SAQs, Viva
144.	Demonstrate the manipulation of heat cured acrylic resin	IL, VD	PW
145.	Fabricate heat-cured acrylic partial dentures	SD	PW
146.	Classify denture lining materials	IL	SAQs
147.	Discuss the types and composition of hard reline materials	IL	BCQs, SAQs,OSPE,
148.	Discuss the advantages and disadvantages of hard reline materials	IL	SAQs, Viva, Assign
149.	State the composition and requirements of tissue conditioners	IL	SAQs, OSPE
150.	Explain the manipulation of tissue conditioners	IL	SAQs,OSPE, Viva
151.	Correlate the properties of tissue conditioners with their use	PBL	PBL, SAQs
152.	State the criteria for using temporary soft lining materials	IL	SAQs, Assign
153.	Discuss the requirements for long term soft lining materials	IL	SAQs,Assign
154.	Enlist and compare the materials available as permanent soft liners	IL	SAQs,OSPE
155.	Discuss the harmful use of self-administered relining materials	IL	SAQs
156.	Discuss the requirements of artificial teeth	IL	CQ, Viva
157.	Enlist the materials available for making artificial teeth	IL	SAQs, Viva, Assign
158.	Discuss the properties of these materials	IL	SAQs,OSPE, CQ, Viva
159.	Discuss the advantages and disadvantages of acrylic and porcelain teeth	IL	BCQs, SAQs,OSPE, Quiz, Ppt, Viva
	PROFESSIONALISM/ PRINCIPLES OF ETHICS		
160.	Explain the selection criteria of dental materials	IL	Group Presentation
	PATIENT SAFETY		

161.	Discuss biological properties and health hazards of various materials	IL	SAQs, CQ
162.	Discuss chemical properties related to the chemical stability of materials	IL	BCQs, SAQs, CQ
	COMMUNICATION SKILLS		
163.	Identify different dental appliances, prosthesis and restorations	PBL, SD	OSPE, PBL, Viva.
164.	Communicate with peers & their facilitator during poster and presentation competitions.	Group Activity	Ppt
	PHARMACOLOGY		
165.	Discuss the scope of pharmacology, drug discovery, pre-clinical & clinical trials as well as rational use of drugs	IL	BCQs
166.	Explain ADME processes of pharmacokinetics, including routes of drug administration	IL, SGD	BCQs, SAQs, Viva
167.	Discuss pharmacodynamics, plot the given values on graph paper and calculate therapeutic index and therapeutic window from it	IL, SGD	BCQs, SAQs, Viva
168.	Describe various types of adverse drug reactions and drug – drug interactions	IL, SGD	BCQs, SAQs, Viva
169.	Explain the pharmacological actions, uses and adverse effects of autacoids	IL	BCQs, SAQ, Viva
170.	Narrate the pharmacokinetics and pharmacodynamics of glucocorticoids (steroid analgesics)	IL	BCQs, SAQs, Assign, Viva
171.	Relate the pharmacokinetics and dynamics of NSAIDS	IL, SGD	BCQs, SAQs, Viva
172.	Describe the pharmacology of opioid analgesic drugs and their antagonists	IL, SGD	BCQs, SAQs, Viva
173.	Discuss the drug treatment of migraine	IL	BCQs, SAQs, Viva
174.	Explain the drug treatment of rheumatoid arthritis	IL, SGD	BCQs, SAQs, Viva
175.	Highlight the treatment of acute gout and chronic gout	IL, SGD	BCQs, SAQs, Viva
176.	Describe the mechanism of action, clinical uses, contraindications, adverse effects and toxicity of cholinoceptor blocking drugs	IL, SGD	BCQs, SAQs, Assignment, Viva
177.	Describe the pharmacokinetics, clinical uses, contraindications, adverse effects and toxicity of adrenoceptor activators	IL, SGD	BCQs, SAQs, Assignment, Viva
178.	Describe the pharmacokinetics, clinical uses, contraindications, adverse effects and toxicity of adrenoceptor activators	IL, SGD	BCQs, SAQs, Assignment, Viva
179.	Compare the pharmacological details of anti-asthmatic and anti-tussive drugs	IL, SGD	BCQs, SAQs, Viva
180.	Explain the pharmacokinetics and pharmacodynamics of adrenoceptor blocking drugs	IL, SGD	BCQs, SAQs, Assignment, Viva
181.	Develop basic knowledge of adrenergic neuron blocking and ganglion blocking drugs	SGD	BCQs, SAQs, Viva
182.	Identify the sources of drugs	Lab Skills	OSPE, Viva
183.	Define the basic pharmacological terminologies	Lab Skills	OSPE, JV

184.	Identify the pharmaceutical preparations. (Part-1)	Lab Skills	OSPE, JV
185.	Identify the pharmaceutical preparations. (Part-2) (a) Identify the units of weights and measures belonging to different systems (b) Interconvert the units of weights & measures	Lab Skills	OSPE, JV
186.	Identify the different routes (I/V, I/M, S/C, I/P, I/D, topical) of drug administration in laboratory animals (mice, rat, rabbit, frog),and manikin (Skill Lab)	Lab Skills	OSPE, JV
187.	(a) Prepare one percent stock solution of $KMnO_4$ (b) Find out the ingredients needed to prepare 100 ml of 0.01 % solution of MnO_4 from a stock solution of 1% strength	Lab Skills	OSPE, JV
188.	Calculate the drip rate in adults and children	Lab Skills	OSPE, JV
189.	Find out the amount of the ingredients needed to prepare 60ml of 5% dextrose in normal saline solution	Lab Skills	OSPE, JV
190.	Calculate the dose of drugs in adults & children	Lab Skills	OSPE, JV
191.	Study the given case-1 and discuss it in small group session	SGD (Lab)	BCQs, SAQs, Viva
192.	Study the given case-2 and discuss it in small group session	SGD (Lab)	BCQs, SAQs, Viva
193.	Application of statistics in biological experiments	SGD (Lab)	OSPE, JV
	PATHOLOGY		
194.	Define: cell injury atrophy, hypertrophy, hyperplasia and metaplasia. Describe the pathogenesis and clinical significance of these adaptative responses.	IL	BCQ/SAQ
195.	Describe the following mechanisms of cell injury: hypoxic, ischemic/reperfusion, chemical and free-radical cell injury.	IL	BCQ
196.	Differentiate between reversible and irreversible cell injury on the basis of biochemical and structural changes.	IL	BCQ/SAQ
197.	Describe the mechanisms and morphological types of necrosis	SGDD	SAQ/BCQ
198.	Describe the mechanisms and significance of apoptosis	SGDD	BCQ
199.	Describe the etiology, pathogenesis and morphology of intracellular accumulations, lipids, proteins, glycogen and pigments	IL	SAQ/BCQ
200.	Describe the pathogenesis and clinical significance of pathologic calcifications: dystrophic and metastatic calcifications	IL	BCQ
201.	Define acute inflammation and give examples of diseases resulting from acute inflammation	IL	BCQ
202.	Describe the mechanisms of vascular changes in acute inflammation	IL	SAQ/BCQ

203.	Describe the following cellular events in acute inflammation: margination, pavementing, adhesion, diapedesis, chemotaxis, recognition, opsonization, phagocytosis and degranulation.	SGDD	BCQ
204.	Discuss the role of local and systemic chemical mediators in inflammation.	SGDD	BCQ
205.	Describe the different morphological patterns and outcomes of acute inflammation.	IL	BCQ/SAQ
206.	Describe chronic inflammation, its causes and morphological features.	IL	BCQ
207.	Describe the role of different cells in chronic inflammation.	IL	BCQ
208.	Discuss the pathogenesis and morphology of chronic granulomatous inflammation.	IL/PBL	BCQ
209.	Describe the systemic effects of inflammation	IL	SAQ/BCQ
210.	Discuss the mechanisms of wound healing by primary and secondary intention.	IL	SAQ/BCQ
211.	Discuss the local and systemic factors influencing wound healing.	IL	BCQ
212.	Discuss the overview of general bacteriology.	ILD	SAQ/BCQ
213.	Discuss the significance of medically important bacteria on basis of their classification.	IL	BCQ
214.	Describe the structure of bacterial cell wall.	IL	BCQ
215.	Correlate the bacterial genes to cause antibiotic resistance.	IL	BCQ
216.	Explain the normal flora as permanent resistant of certain body sites.	SGDD	SAQ/BCQ
217.	Use different staining technique and biochemical test to classify medically important bacteria	IL/PBL	BCQ
218.	Discuss the effectiveness of bacterial vaccine.	IL	SAQ/BCQ
219.	Describe the growth cycle of bacteria and their response to antibiotic during growth cycle	SGDD	BCQ/SAQ
220.	Describe the types and principles of sterilization and disinfection.		BCQ/SAQ
221.	Describe the pathogenesis, clinical presentation, diagnosis of staphylococcus.	SGDD	SAQ/BCQ
222.	Describe the pathogenesis, clinical presentation, and diagnosis of streptococcus.	AS	BCQ
223.	Describe the pathogenesis, clinical presentation and diagnosis of Gram negative cocci.	IL	BCQ

224.	Describe the pathogenesis, clinical presentation and diagnosis of Gram positive spore forming rods.	IL	BCQ
225.	Discuss the pathogenesis, clinical presentation and lab diagnosis of non spore forming Gram positive rods.	IL	BCQ
226.	Identify gross morphological features of hyperplasia of prostate	IL	BCQ
227.	Identify gross morphological features of atrophy of uterus and kidney	AS/SGDD	BCQ
228.	Identify gross morphological features of left ventricular hypertrophy	LAB SKILLS	OSCE/VIVA
229.	Identify gross morphological features of bowel infarction	LAB SKILLS	OSCE/VIVA
230.	Identify gross morphological features of caseating necrosis of lymph node	LAB SKILLS	OSCE/VIVA
231.	Identify gross morphological features of gangrene (intestine)	LAB SKILLS	OSCE/VIVA
232.	Identify gross morphological features of calcification of uterus	LAB SKILLS	OSCE/VIVA
233.	Identify gross morphological features of acute appendicitis	LAB SKILLS	OSCE/VIVA
234.	Identify gross morphological features of chronic cholecystitis	LAB SKILLS	OSCE/VIVA
235.	Identify histopathological features of prostate	LAB SKILLS	OSCE/VIVA
236.	Identify histopathological features of endometrium	LAB SKILLS	OSCE/VIVA
237.	Identify histopathological features of hypertrophy (heart)	LAB SKILLS	OSCE/VIVA
238.	Identify histopathological features of metaplasia (oesophagus)	LAB SKILLS	OSCE/VIVA
239.	Identify histopathological features of coagulative necrosis (kidney)	LAB SKILLS	OSCE/VIVA
240.	Identify histopathological features of liquefactive necrosis (brain)	LAB SKILLS	OSCE/VIVA
241.	Identify histopathological features of caseation necrosis (lymph node)	LAB SKILLS	OSCE/VIVA
242.	Identify histopathological features of fatty change in liver	LAB SKILLS	OSCE/VIVA
243.	Identify histopathological features of hemosiderosis in liver	LAB SKILLS	OSCE/VIVA
244.	Identify histopathological features of metastatic and dystrophic calcifications	LAB SKILLS	OSCE/VIVA
245.	Identify histopathological features of acute inflammation (appendix)	LAB SKILLS	OSCE/VIVA
246.	Identify histopathological features of chronic inflammation (gall bladder)	LAB SKILLS	OSCE/VIVA

247.	Identify histopathological features of chronic granulomatous inflammation in lymph node	LAB SKILLS	OSCE/VIVA
248.	Identify histopathological features of chronic granulomatous inflammation in intestine.	LAB SKILLS	OSCE/VIVA
249.	Identify different parts of a compound microscope and their functions	LAB SKILLS	OSCE/VIVA
250.	Perform the procedure of simple staining	LAB SKILLS	OSCE/VIVA
251.	Perform the procedure of gram staining	LAB SKILLS	OSCE/VIVA
252.	Discuss various types of culture media	LAB SKILLS	OSCE/VIVA
253.	Perform various biochemical reactions and their interpretation	LAB SKILLS	OSCE/VIVA
254.	Perform antimicrobial drug sensitivity and resistance test	LAB SKILLS	OSCE/VIVA
	PRECLINICS-PROSTHODONTICS		
255.	Define Prosthodontics.	SGD	SAQ/BCQ
256.	Enumerate its various specialties.	SGD	SAQ/BCQ
257.	Define its various specialties.	SGD	SAQ/BCQ
258.	Define appliance, prosthesis, restoration, denture, support, stability, retention, partial edentulism, edentulous, temporary prosthesis, abutment, undercut, guide planes, angle of cervical convergence, residual ridge, and denture foundation.	SGD	SAQ/BCQ
259.	Enlist consequences of being an edentulous mouth.	SGD	SAQ/BCQ
260.	Discuss the need of prosthesis.	SGD	SAQ
261.	Delineate the phases of treatment planning of a prosthodontics patient.	SGD	SAQ
262.	Choose appropriate treatment modality (prosthesis) according to number of missing teeth with justification.	SGD	SAQ/BCQ/OSPE
263.	Select appropriate instrument for a given procedure.	SGD	OSPE
264.	Identify materials used in prosthodontics with its use.	SGD	OSPE
265.	Select appropriate instrument for a given procedure	SGD	OSPE
266.	Produce properly contoured edentulous casts using silicone molds.	PW	OSPE
267.	Identify the surfaces of the cast.	SGD	OSPE
268.	Define complete denture.	SGD	SAQ/BCQ
269.	Enlist its various objectives.	SGD	SAQ/BCQ

270.	Identify the different types of complete denture.	SGD	SAQ/BCQ
271.	Recognize the different surfaces of complete denture.	SGD	SAQ/BCQ/OSPE
272.	Sequence the steps involved in the fabrication of complete denture.	SGD	BCQ/OSPE
273.	Outline each clinical and laboratory step involved in the fabrication process of complete denture.	SGD	SAQ/BCQ/OSPE
274.	Recognize the anatomical landmarks on the edentulous maxillary arch.	SGD	SAQ/BCQ
275.	Categorize them into supporting, relief and peripheral landmarks.	SGD	SAQ/BCQ
276.	Explain the clinical significance of each of the anatomical landmarks.	SGD	SAQ
277.	Recognize the anatomical landmarks on the edentulous mandibular arch.	SGD	SAQ/BCQ
278.	Categorize them into supporting, relief and peripheral landmarks.	SGD	SAQ/BCQ
279.	Explain the clinical significance of each of the anatomical landmarks.	SGD	SAQ
280.	Enlist the six ridge types according to Atwood's classification.	SGD	SAQ/BCQ
281.	Mark denture bearing area on the cast.	PW	OSPE
282.	Mark common relief areas on edentulous maxillary and mandibular casts.	PW	OSPE
283.	Enlist different methods of providing relief.	SGD	SAQ/BCQ
284.	Provide relief before making a baseplate.	PW	OSPE
285.	Recognize anatomic landmarks and denture extensions/borders on the edentulous cast.	PW	OSPE
286.	Enlist different materials used for temporary and permanent baseplates with their properties	SGD	SAQ/BCQ
287.	Fabricate permanent baseplates with heat cure acrylic resin.	PW	OSPE
288.	Produce wax pattern for permanent baseplates with heat cure acrylic resin.	PW	OSPE
289.	Identify the components of the flask.	SGD	OSPE

290.	Invest wax pattern of removable dental prosthesis by soft plaster using open technique in a flask.	PW	OSPE
291.	Enumerate the principles of flasking.	SGD	BCQ/SAQ
292.	Appreciate the use of separating media during investment procedure.	SGD	SAQ
293.	Perform dewaxing of the investment mold completely using curing pots.	PW	OSPE
294.	Apply cold mold seal without pooling of liquid in the investment mold.	PW	OSPE
295.	Identify the stages of heat cure acrylic resin setting.	PW	BCQ/OSPE
296.	Pack the mold with acrylic resin at appropriate setting stage.	PW	OSPE
297.	Perform three trial closures before curing commences using hydraulic and manual press.	PW	OSPE
298.	Enlist the different curing cycles for heat cure acrylic resin.	SGD	BCQ/SAQ
299.	Divest the baseplate without its breakage.	PW	OSPE
300.	Finish and polish the prosthesis.	PW	OSPE
301.	Describe finishing and polishing materials for acrylic prosthesis.	SGD	SAQ
302.	Differentiate between partial and complete edentulous arches.	SGD	OSPE
303.	Enlist various classification systems	SGD	SAQ/BCQ
304.	Classify the various partially edentate arches according to Kennedy's classification.	SGD	BCQ/SAQ/OSPE
305.	Apply Applegate's rule on different partially dentate states.	SGD	BCQ/SAQ/OSPE
306.	Rationalize the importance of taking a comprehensive history of a Prosthodontics patient.	SGD	OSPE
307.	Appreciate the different sections of a Prosthodontics history form.	SGD	OSPE
308.	Record the demographics of a given patient.	SGD	OSPE
309.	Record presenting complaint and history of presenting complaint of a given subject.	SGD	OSPE
310.	Record the medical history of a given subject.	SGD	OSPE

311.	Record dental history of a given subject.	SGD	OSPE
312.	Rationalize the importance of taking a comprehensive examination of a Prosthodontics patient.	SGD	OSPE
313.	Appreciate the different sections of a Prosthodontics examination form.	SGD	OSPE
314.	Demonstrate the general examination of a given subject.	SGD	OSPE
315.	Perform extra- oral examination of a given subject.	SGD	OSPE
316.	Perform intra-oral examination of a given subject.	SGD	OSPE
317.	Construct occlusal rims for tooth setup following proper guidelines	PW	OSPE
318.	Seal upper and lower occlusal rims in orthognathic relation.	PW	OSPE
319.	Define articulation .	SGD	SAQ/BCQ
320.	Enlist functions of articulator.	SGD	SAQ/BCQ
321.	Perform zeroing of a semi-adjustable articulator	PW	OSPE
322.	Articulate the upper and lower cast on a semi-adjustable articulator.	PW	OSPE
323.	Enlist types of artificial teeth.	SGD	SAQ/BCQ
324.	Differentiate between porcelain and acrylic teeth.	SGD	SAQ/BCQ/OSPE
325.	Elucidate the relationship of teeth to the casts with proposed guidelines for tooth setup.	PW	OSPE/SAQ/BCQ
326.	Orient the anterior upper teeth according to five planes in the occlusal rims.	PW	OSPE
327.	Orient the anterior lower teeth according to five planes in occlusal rims.	PW	OSPE

Leadership and Management				
328.	Understand the principles of financial management in a dental setting	SGD	✓	BCQ /SAQ
329.	Develop skills in budgeting, revenue management, and financial decision-making.	SGD	✓	BCQ /SAQ

ACADEMIC SCHEDULE

Department of Community & Preventive Dentistry

Department of Science of Dental Materials

Department of Pre-clinics (Prosthodontics and Operative Dentistry)

Department of Pharmacology

Department of Pathology

Weekly schedule of Module IV Community Dentistry		
Week no.	**Lecture 1**	**Lecture 2**
Week – 1	Introduction to Community & Preventive Dentistry	Introduction to principles of dental public health L.O (1-10)
Week – 2	Determinants of health L.O (11)	Implication of DPH (BPOC) L.O (12)
Week – 3	Definition of health L.O (13-17)	Public health approaches to prevention L.O (18-21)
Week – 4	**Class assessment test**	Types of Studies and research design (Epidemiology I) L.O (22-24)
Week – 5	Epidemiology II L.O (25-28)	Screening L.O (29-30)
Week – 6	Indices – properties L.O (37 - 41)	Epidemiological Study Measures L.O (31-32)
Week –8	Epidemiology of Caries L.O (33)	Epidemiology of Periodontal Diseases L.O (34)
Week -9	**COMMUNITY FIELD TRIP**	
Week -10	Epidemiology of Fluorosis I L.O (36)	Epidemiology of Traumatic Dental Injuries L.O (37)
Week -11	Epidemiology of oral cancer L.O (35)	Types of non-carious lesions L.O (38)
Week –12	THEORY EXAMINATION	

Weekly schedule of Module IV PHARMACOLOGY			
Week	**Lecture-1**	**Lecture-2**	**Lecture-3**
Week- 1	Scope of pharmacology/ Rational use of drugs **(LO = 160)**	Pharmacokinetic principles: Drug Absorption & Distribution **(LO = 161)**	Routes of administration of drugs **(LO = 161)**
Week- 2	Drug Metabolism & Excretion **(LO = 161)**	Pharmacodynamics Principles: Mechanism of action of drugs **(LO = 162)**	Pharmacodynamics Principles: Drug Response **(LO = 162)**
Week- 3	Pharmacodynamics Principles: Drug Response **(LO = 162)**	Pharmacodynamic& Pharmacokinetic drug-drug interactions **(LO = 163)**	Adverse drug reactions **(LO = 163)**
Week- 4	Pharmacology of Autacoids **(LO = 164)**	Steroid analgesics **(LO = 165)**	Nonsteroidal anti-inflammatory drugs **(LO = 166)**
Week- 5	Nonsteroidal anti-inflammatory drugs **(LO = 166)**	Opioid analgesic drugs **(LO = 167)**	Opioid analgesic drugs **(LO = 167)**
Week- 6	Drug treatment of migraine **(LO = 168)**	Drug treatment of Rheumatoid arthritis **(LO = 169)**	Drug treatment of acute and chronic gout **(LO = 170)**
Week- 7	Cholinoceptor activating drugs-1 **(LO = 171)**	Cholinoceptor activating drugs-2 **(LO = 171)**	Cholinoceptor blocking drugs **(LO = 172)**
Week- 8	Adrenoceptor activating drugs-1 **(LO = 173)**	Adrenoceptor activating drugs-2 **(LO = 173)**	Drug treatment of asthma **(LO = 174)**
Week- 9	Drug treatment of asthma **(LO = 174)**	Adrenoceptor blocking drugs-1 **(LO = 175)**	Adrenoceptor blocking drugs-2 **(LO = 175)**
Week- 10	PBL Session 1	Pre-clinical & clinical trials **(LO = 160)**	PBL Session 3
Week- 11	Rational use of drugs **(LO = 160)**	Revision	Revision
Week-12	**Theory Examination** **Viva Examination**		

Weekly schedule of Module IV

Science of Dental Materials			
Week no.	**Lecture 1**	**Lecture 2**	**Lecture 3**
Week – 1	Introduction to science of dental materials **(LO = 57-60)**	Introduction to science of dental materials **(LO = 61-63)**	Properties used to characterize materials **(LO = 64-67)**
Week – 2	Properties used to characterize materials **(LO = 67-69)**	Properties used to characterize materials **(LO = 70-72)**	Properties used to characterize materials **(LO = 73- 75)**
Week – 3	Properties used to characterize materials **(LO = 76-78)**	Properties used to characterize materials **(LO = 79-83)**	**TEST (LO = 57- 83)**
Week – 4	Gypsum Products **(LO = 84-87)**	Gypsum Products **(LO = 88-91)**	Gypsum Products **(LO = 92-95)**
Week – 5	Gypsum Products **(LO = 96-100)**	Dental Waxes **(LO = 101-103)**	Dental Waxes **(LO = 104-106)**
Week – 6	Investment Materials **(LO = 107-110)**	Investment Materials **(LO = 111-113)**	**TEST (LO = 84-113)**
Week – 7	Synthetic Polymers **(LO = 114-115)**	Synthetic Polymers **(LO = 116-117)**	Synthetic Polymer **(LO = 118-119)**
Week –8	Synthetic Polymers **(LO = 120)**	Synthetic Polymers **(LO = 121)**	Denture Base Polymers **(LO = 122-125)**
Week -9	Denture base polymers **(LO = 126-129)**	Denture base polymers **(LO = 130-134)**	Denture base polymers **(LO = 135-137)**
Week -10	Denture base polymers **(LO = 138-140)**	Denture lining materials **(LO = 141-143)**	Denture lining materials **(LO = 144-146)**
Week -11	Denture lining materials **(LO = 147-150)**	Artificial Teeth **(LO = 151-152)**	Artificial Teeth **(LO = 153-154)**
Week –12	**Theory Examination Viva Examination**		

Weekly schedule of Module IV DEPARTMENT OF PATHOLOGY		
Week no.	Lecture 1	Lecture 2
Week – 1	Adaptation 1 (LO=185)	Bacteria compared with other microorganisms(LO=191)
Week – 2	Adaptation 2(LO=185)	Structure of Bacteria-I(L0=192)
Week – 3	Mechanism of cell injury (LO=186-188)	Structure of Bacteria-II(LO=192)
Week – 4	Apoptosis 1(LO=190)	Classification of Bacteria(LO=193)
Week – 5	Apoptosis 2(LO=190)	Normal Flora of human body(LO=217)
Week – 6	Acute inflammation 1(LO=199)	Pathogenesis of Bacterial infection-I(LO=196)
Week – 7	Acute inflammation 2(LO=200)	Pathogenesis of Bacterial Infection-II(LO=196)
Week –8	Chemical mediators of inflammation(LO=201)	Laboratory Diagnosis(LO=217)
Week -9	Chronic inflammation(LO=204)	Antimicrobial Drugs(LO=210)
Week -10	Tissue repair and wound healing(LO=208)	Antimicrobial Vaccines(LO=212)
Week -11	Pathological aspects of repair(LO=209)	Sterilization and Disinfection(LO=213-214)
Week –12	**Theory Examination** **Viva Examination**	

Commencement of Module IV		Prosthodontics Department	
Activity	**Week**	**Laboratory Session**	**Tutorial Session**
Pre- Clinical Academic Session – BDS Second Professional	1.	**Identify materials and equipment** **Mold pouring** 254-258	Introduction of Prosthodontics Prosthodontics Terminologies ***Interactive lecture*** 246-251
	2.	Introduction, components & steps of CD ***Pre- reading, Pre-assessment, Lecture ,Post - assessment*** 259-264	Anatomic Landmarks- Maxilla & Mandible ***Team-based learning*** 265-271
	3.	**Applied Anatomical Land mark** **Baseplate wax up** – Demonstration 272-279	Baseplate wax up- Practice session
	4.	**Baseplate investment** – Demonstration 280-283	Baseplate investment – Practice session
	5.	**Baseplate Packing and curing**- Demonstration 285-289	Baseplate Packing and curing- Practice session
	6.	**Baseplate Finishing** – Demonstration and practice session 290-292	Classification systems for partially edentate patients ***Team-based learning*** *293-296*
	7.	Introduction to Prosthodontics -History form ***Clinical Demonstration/ Patient simulation*** 297-302	Introduction to Prosthodontics- Examination form ***Clinical Demonstration/Patient simulation*** 252,253,303-307
	8.	**Fabrication of Occlusal rims** – Demonstration 308,309	Occlusal rims – Practice session
	9.	Occlusal rims – Practice session	**Programming of semi-adjustable articulator and articulation of casts-** Demonstration 310-313
	10.	**Upper anterior teeth setup**- Demonstration 314-317	Laboratory work
	11.	**Lower anterior teeth setup**- Demonstration 318	***Creative Dental Art Exhibition***
	12.	**Theory Examination** **Viva Examination**	

MODULE V

At the end of the module, students should be able to:

	COMMUNITY & PREVENTIVE DENTISTRY	Teaching Method	Assessment Mode
1.	Classify different levels of prevention	IL, SGD,	BCQs, SAQs, Viva
2.	Discuss different strategies for the prevention of oral diseases	IL, SGD, PBL	BCQs, SAQs, OSPE, , PBL,Viva,
3.	Describe the etiology and mechanism of dental caries	IL, SGD	BCQs, SAQs, OSPE, Viva,
4.	Explain the role of different types of sugars along with their cariogenic potential	IL, SGD	BCQs, SAQs, OSPE, Viva,
5.	Describe the significance of caries activity test in prevention of dental caries	IL,	SAQs, Viva
6.	Describe the prevention of dental caries through vaccine	IL,	, SAQs
7.	Specify the role of fluoride in prevention of dental caries	IL, SGD,	SAQs, OSPE, Viva,
8.	Integrate the role of diet & plaque control in prevention of dental diseases	IL,	BCQs, SAQs, Viva,
9.	Explain the role of fissure sealants and its application	SGD, VD, PBL, Practical , Skill Lab, OPD	BCQs, SAQs, OSPE, PBL
10.	State the indication and contraindication of fissure sealants	IL, SGD, PBL,	BCQs, SAQs, Viva,
11.	Define dental plaque	SGD	SAQs,Viva
12.	Discuss the different methods of plaque control	IL, SGD, PBL, VD,OPD	BCQs, SAQs, OSPE, PBL, Viva,
13.	Explain clinical approaches in the prevention of oral cancer	IL, SGD, PBL	BCQs, SAQs, Viva, PBL
14.	Understand the metabolism, excretion and mechanism of action of fluoride	IL, SGD	BCQs, SAQs, Viva,
15.	Describe different modes of fluoride intake	IL, SGD	BCQs, SAQs,

16.	Describe the significance of each mode of fluoride intake	IL, SGD	BCQs, SAQs, OSPE, Viva,
17.	Discuss toxicity of fluoride and methods of defluoridation.	IL, SGD	BCQs, SAQs,
18.	Explain the key areas outline in Ottawa Charter along with its examples	IL, SGD, PBL,	BCQs, SAQs, OSPE, PBL, Viva,
19.	Define health promotion	IL,	SAQs, Viva,
20.	Discuss elements of health promotion	IL	SAQs, Viva,
21.	Illustrate different approaches of health promotion	IL	SAQs
22.	Recall the scientific basis of oral health education	IL	SAQs, Viva,
23.	Recognize models of planning oral health education	IL	SAQs, Viva,
24.	Explain different methods and materials of health education	IL	SAQs, Viva,
25.	Define health behavior	IL	SAQs,
26.	Enlist different theories of behavior change	IL, SGD,	BCQs, SAQs, Viva,
27.	Describe the health behavior in view of different behavior models	IL,	SAQs, Viva,
28.	Describe ART along with its significance	SGD	SAQs, Viva,
29.	Describe different technique for the application of ART	SGD, VD,Skill Lab, OPD, FV	BCQs, SAQs, Viva, Skill Demonstration, logbook
30.	Enlist the indication and contraindications of ART	SGD	BCQs, SAQs, Viva,
31.	Describe the components of healthcare delivery system	ISGD	BCQs, SAQs, Viva
32.	Describe clinical governance	SGD,	SAQs, Viva,
33.	Discuss the financing of oral healthcare	IL	BCQs, SAQs, OSPE, Viva,
34.	Explain the principles of planning	IL	BCQs, SAQs, OSPE, Viva,
35.	Recall the quality assurance cycle	IL	SAQs, OSPE, Viva,
36.	Recognize the common problems associated with health care	SGD	BCQs, SAQs,
37.	Discuss dental workforce and their role in dentistry	IL, SGD,PBL	BCQs, SAQs, OSPE, Viva, PBL,
38.	Express dental care of patients with special needs, elderly, HIV/AIDS & children	IL	BCQs, SAQs

39.	Define ethics and discuss the guidelines required in making a biomedical decision	IL, SGD, PBL	BCQs, SAQs, Viva, OSPE, PBL
	Behavioral Science		
40.	Explain Stress along with its manifestations	IL, SGD, PBL	BCQs, SAQs, Viva, OSPE, PBL
41.	Discuss ways to manage stress	IL, SGD, PBL	BCQs, SAQs, Viva, OSPE, PBL
42.	Define anxiety	IL, SGD, PBL	BCQs, SAQs, Viva, OSPE, PBL
43.	Discuss different components of anxiety	IL, SGD, PBL	BCQs, SAQs, Viva, OSPE, PBL
44.	Explain non pharmacological approaches to deal with anxiety	IL, SGD, PBL	BCQs, SAQs, Viva, OSPE, PBL
45.	Understand the reasons and phases in delay in seeking help	IL, SGD, PBL	BCQs, SAQs, Viva, OSPE, PBL
46.	Demonstrate the application of methods of plaque control (tooth brushing Techniques, flossing, mouth washes and plaque disclosing agents)	Skill Lab, VD	OSPE
47.	Demonstrate the application of fissure sealant	Skills Lab, VD	OSPE
48.	Identify dental fluorosis	Practical	OSPE
49.	Identify the different types of TDI in pictorial exercise	Practical	OSPE
50.	Identify the different types of non-carious lesion in pictorial exercise	Practical	OSPE
51.	Demonstrate topical fluoride application	Lab Skills, VD	OSPE
52.	Demonstrate ART technique on phantom teeth	Lab Skills,VD	OSPE
	Research Methodology		
53.	Collect research data	OPD, FV	Assign
54.	Enter and analyze research data	Lab Skills	Assign
55.	Demonstrate skills in generating results for research write-up	Lab Skills	Assign
56.	Write the research draft (introduction, methods)	SGD	Assign

57.	Plan the Dental Health Education Material	SGD	Assign
58.	Design the Dental Health Education Material	SGD	Assign
	PROFESSIONALISM		
59.	Understanding the concept of Professionalism	SGD	BCQs, SAQs
60.	Explain the traits of professionalism	IL, SGD	BCQs, SAQs
61.	Describe the dress code of a true professional	SGD	BCQs, SAQs, OSPE
62.	Define Ethics	IL,PBL	BCQs, SAQs, PBL, Viva
63.	Describe the principles of Ethics.	IL,PBL	BCQs, SAQs, PBL, Viva
64.	Recognize the Ethical Standards required of every professional/student.	IL, SGD,PBL	BCQs, SAQs, PBL, Viva
65.	Recognize the professional obligations required of a Dental student & Dentist?	IL, SGD,PBL	BCQs, SAQs, PBL, Viva
	PATIENT SAFETY/ CROSS INFECTION		
66.	Recognize the routes of spread of infection in a dental setting?	IL,SGD	BCQs, SAQs, Viva, OSCE
67.	Describe the measures through which Cross-infection can be prevented?	IL,SGD, Practical	BCQs, SAQs, Viva, OSCE
68.	Define the following terms a. Standard Precautions b. Body Substance Isolation c. Bloodborne pathogen standard d. Cross infection control e. Standard infection control procedure	IL,SGD, Practical	BCQs, SAQs, Viva, OSCE
69.	Understand the mode of spread of HIV and HCV infection?	IL,SGD	BCQs, SAQs, Viva, OSCE
70.	Discuss different preventive measures of COVID-19	IL,SGD, Practical, PBL	BCQs, SAQs, Viva, OSCE
71.	Discuss different disinfectants and sterilization procedures used in dental setting	IL,SGD, Practical, PBL	BCQs, SAQs, Viva, OSCE
72.	Recognize the types of errors that can be encountered in a dental setting.	IL,SGD, Practical	BCQs, SAQs, Viva, OSCE
73.	Describe occupational hazards, radiation & mercury protection	SGD,	BCQs

74.	Enable logbook maintenance by acquisition of competency	SGD	Assign
	SCIENCE OF DENTAL MATERIALS		
75.	Identify the process of casting as a means of shaping metal and alloys	IL	BCQs, SAQs,VivaOSPE, Assign
76.	Give examples of cast restorations and prosthesis	IL	BCQs, SAQs. OSPE, Assign
77.	State the components of an investment mould	IL	BCQs, SAQs, OSPE, Assign
78.	Discuss the different types of casting machines	IL	BCQs, SAQs, OSPE, quiz
79.	Enlist the common faults occurring in a casting procedure	IL	SAQs
80.	Discuss reasons for faults in casting	PBL	BCQs, SAQs, OSPE, PBL
81.	Suggest ways to avoid such faults	IL	SAQs, OSPE, Assign
82.	Outline the clinical applications of metal and alloys in dentistry	IL	SAQs, Assign, Viva
83.	Discuss the shaping of metal and alloys through casting, cold working and amalgamation	IL	BCQs, SAQs, OSPE, Viva
84.	Appreciate the crystalline structure of metals	IL	SAQs, Viva, Assign
85.	Relate yield stress, dislocation and ductility/malleability	IL	BCQs, SAQs,
86.	Discuss quenching and coring	IL	BCQs, SAQs, Viva, Assign
87.	Explain cold working and its application in dentistry	IL	SAQs, OSPE, Viva.
88.	Discuss the structure and properties of alloys	IL	SAQs, OSPE, Viva.
89.	Explain cooling curves for metal and alloys	IL	BCQs, SAQs, OSPE.
90.	Discuss the phase diagrams of solid-solution alloy	IL	SAQs, OSPE
91.	Discuss eutectic phase diagrams	IL	SAQs, OSPE
92.	Discuss properties and use of a eutectic alloy	IL	BCQs, SAQs, Viva.
93.	Differentiate between noble and base metals	IL	SAQs, Viva
94.	Enlist the properties of pure gold	IL	SAQs, OSPE, Viva
95.	Discuss cold welding in relation to pure gold filling	IL, VD	BCQs, SAQs, Viva
96.	Discuss advantages and disadvantages of pure gold filling	IL	SAQs, Viva
97.	Discuss the composition, properties and clinical uses of different type of casting gold alloys	IL	SAQs, OSPE, Viva, Assign
98.	Discuss hardening heat treatment	IL	SAQs, Viva, Assign
99.	Differentiate between soldering and brazing	IL	BCQs, SAQs

100.	Discuss the use of noble alloys in metal-bonded ceramic restorations	IL	BCQs, SAQs
101.	Discuss the composition and properties of cobalt-chromium alloys and nickel chromium alloys	IL	BCQs, SAQs, Viva,
102.	Discuss the manipulation of base metal casting alloys highlighting the fusion temperatures, mode of melting, type of investment material used, and methods of trimming and polishing	IL	BCQs, SAQs, OSPE, Viva, Assign
103.	Discuss the process of electrolytic polishing	IL, VD	SAQs, Viva
104.	Compare and contrast the properties of base metal casting alloys and castinggold alloys	IL	BCQs, SAQs
105.	Correlate the clinical applications of base metal alloys with their properties	PBL	BCQs, SAQs, Viva, PBL
106.	Discuss the types of base metal casting alloys for fixed restorations according to ISO standard	IL	BCQs, SAQs, OSPE, Viva, Assign
107.	Discuss the biocompatibility of various constituents of base metal casting alloys	PBL	PBL, BCQs, SAQs
108.	Discuss formation of a wrought alloy	IL	BCQs, SAQs
109.	State the composition of Steel	IL	BCQs, SAQs
110.	Explain the iron-carbon phase diagram	IL	SAQs, Viva
111.	Identify the phases of cementite and ferrite and discuss their properties	IL	SAQs, OSPE, Assign
112.	Explain the terms: austenite, cementite, ferrite, pearlite, eutectoid alloy, martensite, hypereutectoid alloy and hypoeutectoid alloy	IL	BCQs, SAQs, Viva,
113.	Explain the hardening and tempering cycles of heat treatment done on steel	IL	SAQs, Assign
114.	Differentiate between steel and stainless steel	IL	BCQs, SAQs, OSPE, Viva, Assign
115.	Discuss properties and clinical uses of austenitic and martensitic stainless steel	IL	BCQs, SAQs, OSPE, Viva, Assign, Ppt, Quiz
116.	Discuss advantages and disadvantages of stainless steel as a denture base	IL	BCQs, SAQs, Viva
117.	Discuss the requirements of wire	IL	SAQs, OSPE, Viva
118.	Explain the use of various materials for making wires	IL	SAQs,Assign
119.	Develop skills at bending wire into alphabets and clasps	SD	PW
120.	State the composition of different types of dental ceramic	IL	SAQs, Assign
121.	State the uses of dental porcelain	IL	BCQs, SAQs, Viva
122.	Explain the manipulation of porcelain with respect to its compaction, firing and glazing	IL, VD	BCQs, SAQs, Assign
123.	Enlist the properties of porcelain	IL	SAQs, Viva, Assign
124.	Discuss aluminous porcelain	IL	BCQs, SAQs, Viva,

125.	Explain the formation of sintered alumina core ceramics	IL	SAQs, Viva, Assign
126.	Discuss injection molded and pressed ceramics	IL	SAQs, Viva, Assign
127.	Discuss cast glass and polycrystalline ceramics	IL	BCQs, SAQs, Assign
128.	Discuss the advantages of CAD-CAM restorations	IL, VD	BCQs, SAQs, OSPE, Viva
129.	Discuss porcelain veneers and alternate materials available for veneers	IL	BCQs, SAQs, OSPE, Viva, Assign
130.	Discuss porcelain fused to metal restorations highlighting the requirements for alloys available for porcelain bonding	PBL	BCQs, SAQs, PBL
131.	Compare the properties of different types of alloy used in PFM	IL	Viva, Assign
132.	Classify impression materials on the basis of viscosity and elastic properties	IL, SGD	BCQs, SAQs, OSPE, Viva, Assign, Quiz, Ppt
133.	Classify impression materials on the basis of viscosity and elastic properties	IL	SAQs, OSPE, Viva
134.	Discuss the ideal requirements of impression materials	IL	SAQs, OSPE, Viva, Assign, Quiz, Ppt
135.	Define the terms: elastic, non-elastic/rigid and viscoelastic	IL	SAQs, OSPE, Viva, CQ
136.	Discuss clinical considerations (choice of material, trays, tissue management, technique, cross infection control).	IL	SAQs, OSPE, Viva,
137.	Classify impression trays	IL, SD	BCQs, SAQs, Viva
138.	Discuss the use of tray adhesives	IL	BCQs, SAQs
139.	Discuss impression techniques.	IL, SD	BCQs, SAQs, OSPE, Viva, Assign, Quiz
140.	Discuss infection control	IL	SAQs, OSPE, Viva
141.	Classify non- elastic impression materials.	IL	BCQs, SAQs, Viva
142.	Discuss composition, manipulation, setting reaction, properties and uses of impression plaster, impression compound ,impression waxes and zinc oxide	IL, SD	BCQs, SAQs,Viva
143.	Classify elastic impression materials.	IL	BCQs, SAQs, OSPE
144.	Differentiate between sol and gel forms	IL	SAQs
145.	Discuss reversible hydrocolloids with respect to their composition, type's properties, handling and uses.	IL	BCQs, SAQs, OSPE, Viva, Assign, Quiz
146.	Discuss irreversible hydrocolloids with respect to their composition, properties, handling and uses	IL, SD	BCQs, SAQs, Viva, PW
147.	Discuss their advantages and disadvantages	IL	SAQs
148.	Define modified alginate	IL	SAQs, OSPE, Viva

149.	State methods for disinfection of alginate impression	IL	BCQs, SAQs
150.	Discuss the making of an alginate impression through video demonstration	IL, VD, SD	PW
151.	Enlist the types of synthetic elastomers	IL	SAQs, OSPE
152.	Classify synthetic elastomers according to consistency	IL	SAQs, OSPE, Viva
153.	Discuss their composition ,properties, handling, setting reaction and clinical uses	IL	BCQs, SAQs, Viva,
154.	Compare and contrast their properties, advantages and disadvantages.	IL	BCQs, SAQs, CQ
155.	State methods for disinfection of each type	IL	BCQs, SAQs, OSPE
156.	Discuss the process for a putty wash type impression through video demonstration	VD	PW
	PROFESSIONALISM/PRINCIPLES OF ETHICS		
157.	Discuss the ideal requirements of impression materials	IL	Presentation
158.	Outline the clinical applications of metal and alloys in dentistry	IL	Group Presentations
159.	**PATIENT SAFTEY**		
160.	Discuss various clinical considerations.	IL	SAQs, OSPE, Viva,
161.	Discuss infection control	IL	SAQs, OSPE, Viva
162.	State methods for disinfection of each elastomers	IL	BCQs, SAQs, OSPE
	COMMUNICATION SKILLS		
163.	Correlate the clinical applications of base metal alloys with their properties	PBL	BCQs, SAQs, Viva, PBL
	PHARMACOLOGY		
164.	Explain the pharmacokinetics and pharmacodynamics of drugs used for cardiovascular diseases (anti-hypertensives & diuretics)	IL, SGD	BCQs, SAQs, Viva
165.	Explain the pharmacokinetics and pharmacodynamics of drugs used for cardiovascular diseases (anti-arrhythmic, anti-anginal & CCF drugs)	IL, SGD	BCQs, SAQs, Viva
166.	Describe oral & parenteral anticoagulants. Give an account of thrombolytic and antiplatelet drugs	IL, SGD	BCQs, SAQs, Viva
167.	Classify and discuss pharmacological properties of emetic, anti-emetic, purgative and anti-diarrheal drugs	IL, SGD	BCQs, SAQs, Viva
168.	Reproduce pharmacological details of drug treatment of acid peptic disease	PBL	BCQs, Viva
169.	Describe the pharmacological properties of drugs used for IBD	IL	BCQs, SAQs, Viva
170.	Compare the pharmacological properties of penicillins	IL	BCQs, SAQs, Viva
171.	Give a detailed account of the pharmacokinetics and pharmacodynamics of cephalosporins	IL	BCQs, SAQs, Viva

172.	Describe the pharmacokinetic and pharmacodynamic properties, mechanism, clinical uses and adverse effects of tetracyclines	IL	BCQs, SAQs, Viva
173.	Present pharmacokinetic properties, mechanism, clinical uses and adverse effects of aminoglycosides	IL	BCQs, SAQs, Viva
174.	Describe the pharmacokinetic properties, mechanism, clinical uses and adverse effects of macrolides	IL	BCQs, SAQs, Viva
175.	Compare the pharmacokinetic properties, mechanism, clinical uses and adverse effects of chloramphenicol	IL	BCQs, SAQs, Viva
176.	Discuss the pharmacokinetic and pharmacodynamic properties of sulfonamides	IL	BCQs, SAQs, Viva
177.	Describe the pharmacokinetics and pharmacodynamics of fluoroquinolones	IL	BCQs, SAQs, Viva
178.	Explain the clinical uses and adverse effects of carbapanems & monobactams	SGD	BCQs, SAQs, Viva
179.	Explain the mechanism of action, clinical uses and adverse effects of vancomycin & clindamycin	SGD	BCQs, SAQs, Viva
180.	Discuss 1st line drug therapy for tuberculosis	IL	BCQs, SAQs, Viva
181.	Explain 2nd line drug therapy for tuberculosis	SGD	BCQs, SAQs, Viva
182.	Describe the mechanism of action, clinical uses and adverse effects of various types of antiviral drugs	IL	BCQs, SAQs, Viva
183.	Classify anticancer drugs based on cell cycle specificity and briefly discuss mechanisms of action and adverse effects	IL	BCQs, SAQs, Viva
184.	Describe mechanism of resistance to anticancer drugs	IL	BCQs, SAQs, Viva
185.	Discuss pharmacological properties of anti-anemic drugs	SGD	BCQs, SAQs, Viva
186.	Write down the pharmacokinetics and pharmacodynamics of anti-hyperlipidemic drugs	IL	BCQs, SAQs, Viva
187.	Prepare dilutions from 1mg of the given drug having strength of 10^{-3} up to 10^{-8}	Lab Skills	OSPE, JV
188.	Interpret the effect of antibiotic drugs on bacterial colonies	Lab Skills	OSPE, JV
189.	Interpret the effects of given drugs on the eyes of rabbit	Lab Skills	OSPE, JV
190.	Interpret the effects of agonist and antagonist drugs on the eyes of rabbit	Lab Skills	OSPE, JV
191.	Identify the parts of kymograph and organ bath assembly	Lab Skills	OSPE, JV
192.	Interpret the effects of different dilutions of a given drug on an isolated piece of rabbit intestine	Lab Skills	OSPE, JV
	PATHOLOGY		
193.	Compare the pathophysiologic categories of edema on the basis of underlying mechanism and clinical features.	ILD/SGDD	BCQ/SAQ
194.	Relate the abnormalities of normal hemostasis with the development of thrombosis and its clinical consequences.	SGDD	SAQ/BCQ

195.	Compare different types of emboli on the basis of underlying cause and clinical presentation.	ILD/SGDD	BCQ
196.	Differentiate between the various types of infarcts according to the mechanism of development, morphological features and clinical consequences.	ILD/SGDD	SAQ/BCQ
197.	Describe the types of shock as regards to their etiology, pathogenesis and management.	ILD/SGDD	BCQ/SAQ/AS
198.	Describe the nomenclature, characteristics and classification of tumors	ILD/SGDD	BCQ
199.	Classify tumors according to tissue of origin and clinical behavior.	ILD/SGDD	SAQ/BCQ
200.	Compare benign and malignant tumors tumors on the basis of their morphological characteristics and clinical behavior.	SGDD	BCQ
201.	Discuss the molecular basis of carcinogenesis with special emphasis on proto oncogene, oncogene and tumor suppressor genes.	ILD/SGDD	BCQ/SAQ
202.	Explain the clinical effects of tumors on the basis of size, site and syndromes they produce.	ILD/SGDD	OSCE
203.	Explain the effects of physical, chemical and viral carcinogen and relate them to tumorigenesis	ILD/SGDD	BCQ/AS/SAQ
204.	Comprehend the role of genetic alterations in carcinogenesis.	ILD/SGDD	BCQ/AS
205.	Describe the significance of tumor markers in the diagnosis and management of cancers	ILD/SGDD	BCQ/SAQ
206.	Describe the structure and clinical manifestations of human immunodeficiency virus	ILD/SGDD	BCQ
207.	Describe the pathogenesis, clinical presentation and diagnosis of mycobacterium.	ILD/SGDD	OSCE
208.	Explain the overview of Gram negative rods and discuss the pathogenesis and clinical presentation of E coli.	ILD/SGDD	BCQ
209.	Describe the pathogenesis, clinical presentation and diagnosis of vibrio cholera.	ILD/SGDD	SAQ/BCQ
210.	Discuss different biochemical test for identification of Gram negative rods.	ILD/SGDD	BCQ
211.	Explain the role of pathogens to cause infection in hospitalized patients.	ILD/SGDD	SAQ/BCQ
212.	Describe the pathogenesis, clinical presentation and diagnosis of Pseudomonas aeruginosa.	ILD/SGDD	BCQ
213.	Correlate the clinical presentation of spirochetes with lab diagnosis.	ILD/SGDD	BCQ
214.	Describe the role of intracellular bacteria in causing a disease.	ILD/SGDD	SAQ/BCQ
215.	Discuss the pathogenesis, clinical presentation and diagnosis of mycoplasma and actinomyces.	ILD/SGDD	BCQ/SAQ
216.	Comprehend the role of respiratory Gram negative rods to cause various pulmonary diseases.	ILD/SGDD/PBL	BCQ/SAQ
217.	Discuss the pathogenesis and clinical presentation of zoonotic organisms	ILD/SGDD	BCQ
218.	Discuss structure and classification of viruses	SGDD	BCQ/AS
219.	Discuss the effectiveness of viral vaccine.	ILD/SGDD	BCQ

220.	Discuss the role of herpes simplex 1 & 2 & varicella zoster virus as contagious diseases.	ILD/SGDD	BCQ/SAQ
221.	Discuss the pathogenesis, clinical presentation and diagnosis of cytomegalo virus and Ebstein bar virus.	ILD/SGDD	BCQ/SAQ
222.	Discuss the pathogenesis, clinical presentation and diagnosis of measles and mumps.	ILD/SGDD	OSCE/BCQ
223.	Explain the different types of influenza virus and its preventive strategies.	ILD/SGDD	BCQ/SAQ
224.	Correlate the pathogenesis of rabies and rubella with their clinical presentation.	ILD/SGDD	SAQ/BCQ
225.	Describe different types of hepatitis (A, B and C) and their pathogenesis.	ILD/SGDD	BCQ
226.	Correlate the pathogenesis of HIV with its clinical presentation and lab diagnosis.	ILD/SGDD	SAQ/BCQ
227.	Identify histopathological features of Keloid	ILD/SGDD	BCQ
228.	Identify histopathological features of Leiomyoma (uterus)	LAB SKILLS	OSCE/VIVA
229.	Identify histopathological features of Follicular adenoma (thyroid)	LAB SKILLS	OSCE/VIVA
230.	Identify histopathological features of Fibroadenoma (Breast)	LAB SKILLS	OSCE/VIVA
231.	Identify histopathological features of granulation tissue	LAB SKILLS	OSCE/VIVA
232.	Identify histopathological features of Lipoma	LAB SKILLS	OSCE/VIVA
233.	Identify histopathological features of thrombus	LAB SKILLS	OSCE/VIVA
234.	Identify gross morphological features of follicular adenoma (thyroid)	LAB SKILLS	OSCE/VIVA
235.	Identify gross morphological features of fibroadenoma breast	LAB SKILLS	OSCE/VIVA
236.	Identify gross morphological features of lipoma	LAB SKILLS	OSCE/VIVA
237.	Identify gross morphological features of Leiomyoma (uterus)	LAB SKILLS	OSCE/VIVA
238.	Identify histopathological features of liposarcoma	LAB SKILLS	OSCE/VIVA
239.	Identify histopathological features of leiomyosarcoma	LAB SKILLS	OSCE/VIVA
240.	Identify histopathological features of adenocarcinoma stomach and Ductal carcinoma of breast	LAB SKILLS	OSCE/VIVA
241.	Discuss the pathogenesis and lab diagnosis of Staphylococcus aureus	LAB SKILLS	OSCE/VIVA
242.	Discuss the pathogenesis and lab diagnosis of Streptococcus species	LAB SKILLS	OSCE/VIVA
243.	Discuss the pathogenesis and lab diagnosis of Salmonella species.	LAB SKILLS	OSCE/VIVA
244.	Study the procedure of Zeihl Neelson staining and observe acid fast bacilli under microscope	LAB SKILLS	OSCE/VIVA
245.	Discuss the pathogenesis and lab diagnosis of Hepatitis B virus.	LAB SKILLS	OSCE/VIVA

246.	To study Escherichia coli and laboratory investigations its identification	LAB SKILLS	OSCE/VIVA
247.	To study HIV laboratory diagnosis.	LAB SKILLS	OSCE/VIVA
248.	Compare the pathophysiologic categories of edema on the basis of underlying mechanism and clinical features.	LAB SKILLS	OSCE/VIVA
	PRECLINICS-PROSTHODONTICS		
246.	Define the compensating curves.	SGD	SAQ/BCQ
247.	Define balanced occlusion and articulation.	SGD	SAQ/BCQ
248.	Orient the upper posterior teeth according to five planes in occlusal rims	PW	OSPE
249.	Orient the lower posterior teeth according to five planes in occlusal rims	PW	OSPE
250.	Perform final esthetic wax up of complete denture.	PW	OSPE
251.	Achieve bilateral occlusal contacts in centric relation according to BULL's rule on the articulator.	PW	OSPE
252.	Enlist the anatomical and physiological consequences of partial tooth loss.	SDG	SAQ/BCQ
253.	Define a removable partial denture.	SDG	SAQ/BCQ
254.	Enlist its various indications and contra- indications.	SDG	SAQ/BCQ
255.	Classify different types of removable partial denture.	SDG	SAQ/BCQ
256.	Identify different types of removable partial denture.	SDG	OSPE
257.	Identify various components of removable partial denture.	SDG	BCQ/OSPE
258.	Define various components of removable partial denture.	SDG	SAQ/BCQ/OSPE
259.	Sequence the clinical and laboratory steps involved in the fabrication of removable partial denture.	SDG	BCQ/ OSPE
260.	Define inlay, onlay and crown	SDG	SAQ/BCQ
261.	Classify crowns	SDG	SAQ/BCQ
262.	Identify different types of crown.	SDG	OSPE
263.	Define fixed partial denture.	SDG	SAQ/BCQ
264.	Classify fixed partial dentures	SDG	SAQ/BCQ
265.	Identify different types of fixed partial denture.	SDG	OSPE
266.	Enlist its various indications and contra- indications.	SDG	SAQ/BCQ
267.	Identify various components of fixed partial denture.	SDG	BCQ/OSPE

268.	Define various components of fixed partial denture.	SDG	SAQ/BCQ/OSPE
	Pre-Clinical Operative Dentistry		
269.	Introduction of Conservative/Operative Dentistry	IL	BCQs/SAQs
270.	List the aims of Conservative/Operative Dentistry	IL	BCQs/SAQs
271.	Repeat Nomenclature of dentition	IL/SGD	BCQs/SAQs
272.	Illustrate Tooth Numbering systems, ADA, Zsigmondy-Palmer, and FDI systems	IL/SGD	BCQs/SAQs
273.	Identify hand instruments	SGD/Skill Lab	OSCE
274.	Recognize the design of hand instruments	SGD/Skill Lab	BCQs/OSCE
275.	Apply different grips to hold hand instruments	SGD/Skill Lab	OSCE
276.	Classify rotary instruments	SGD/Skill Lab	BCQs
277.	Demonstrate tooth preparation with rotary instruments	Skill Lab	BCQs/OSCE
278.	Describe know different components of patient history	IL/SGD	BCQs/SAQs/OSCE
279.	Perform documentation of history of patient	IL/SGD	OSCE
280.	***Professionalism and Ethics***		
a.	Introduce himself/ herself	CR	Role play
b.	Communicate with supervisors respectfully	CR	Role play
c.	Explain various types of filling to the patient	CR	OSCE/ Role play
d.	Explain preventive treatments for dental caries to the patient	CR	Role play
281.	Communication Skills		
a.	Able to communicate with superiors and juniors respectfully	CR	Role play
b.	Speak clearly and confidently		Role play
c.	Display empathy and respect to the patient during history taking	CR	Role play
d.	Show positive gestures to the Juniors, class fellows & Seniors	CR	Role play
282.	Enlist steps of extra and intra oral examination and document findings	IL/SGD	SAQs/OSCE
283.	Identify the parts of dental unit	Skill Lab	BCQs/ OSCE
284.	Operate dental unit in phantom lab	Skill Lab	OSCE

285.	Demonstrate about positioning the patients and the dentist in operatory	Skill Lab	OSCE/Role play
286.	Define Dental caries	IL/SGD	OSCE
287.	Review G.V. Black classification of dental caries	IL/SGD	OSCE
288.	Describe Graham Mount classification of dental caries	IL	BCQs/SAQs/ OSCE
289.	Differentiate between G.V. Black & Graham Mount classification of Dental caries	IL/SGD	BCQs/OSCE
290.	Memorize parts of matrix band retainer	SGD/Skill Lab	OSCE
291.	Apply matrix band Retainer & wedge	SGD/Skill Lab	BCQs/ OSCE
292.	**Patient Safety**		
a.	Practice the use of isolation methods for patient safety (Rubber dam & matrix band application)	CR	OSCE
b.	Capable to seat patient on dental unit	CR	OSCE
c.	Know how to use saliva ejector to maintain isolation	CR	OSCE
d.	Show to the patient about use of lead apron & thyroid collar for X-ray taking	CR	Role play
293.	Express various steps in Class I cavity preparation	Skill Lab	OSCE
294.	Plan Class I cavity on plaster models/ acrylic teeth in phantom lab	Skill Lab	OSCE
295.	Discuss different steps in Class V cavity preparation	Skill Lab	OSCE
296.	Prepare Class V cavity on plaster models/ acrylic teeth in phantom lab	Skill Lab	BCQs/OSCE
297.	Explain cavity liners and bases	IL/SGD	BCQs/ SAQs
298.	Discuss Steps of amalgam placement	IL	BCQs/ SAQs
299.	Complete finishing and polishing of amalgam restoration	Skill Lab	BCQs
Leadership and Management			
300.	Recognize the importance of strategic planning for the success of a dental practice.	SGD	BCQs /SAQs
301.	Learn to conduct a SWOT analysis and formulate strategic goals for a dental practice.	SGD	BCQs /SAQs
302.	Explore principles of human resource management specific to dental practices.	SGD	BCQs /SAQs

303.	Understand recruitment, training, performance evaluation, and motivation of dental personnel.	SGD	BCQs /SAQs

Weekly schedule of Module V **Community & Preventive Dentistry**		
Week no.	**Lecture 1**	**Lecture 2**
Week – 1	Levels of prevention/ Ottawa charter L.O (1-2)	Prevention of dental caries L.O (3-7 & 9)
Week – 2	Prevention of periodontal disease L.O (8,11-12)	Prevention of oral cancer L.O (13)
Week – 3	Role of Fluoride I L.O (14-15)	Role of Fluoride II L.O (16-17)
Week – 4	Principles of Oral health promotion L.O (18-21)	Fissure Sealant and ART L.O (10, 28-30)
Week – 5	Health education L.O (22-24)	Behavior change L.O (25-27)
Week – 6	**Students competition**	
Week – 7	**Class assessment test**	Health care systems of Pakistan L.O (31 -32)
Week –8	Principles of planning L.O (34-35)	Problems of the health care systems L.O (36)
Week -9	Financing/ economics of dental care L.O (33)	Dental workforce L.O (37)
Week -10	Ethics in dentistry L.O (39, 52-55)	Infection control L.O (56-63)
Week -11	Oral health care for special need (38) L.O	Professionalism in Dentistry LO (49-51)
Week –12	**Theory Examination** **Viva Examination**	

Weekly schedule of Module V Science of Dental Materials			
Week no.	**Lecture 1**	**Lecture 2**	**Lecture 3**
Week – 1	Metal and Alloys **(LO=75-78)**	Metal and Alloys **(LO=79-81)**	Metal and Alloys **(LO=82-85)**
Week – 2	Gold and Alloys of Nobel metal **(LO=86-87)**	Gold and Alloys of Nobel metal **(LO=88-89)**	Gold and Alloys of Nobel metal **(LO=90-91)**
Week – 3	Gold and Alloys of Nobel metal **(LO=92)**	Base metal casting alloys **(LO=93-96)**	Base metal casting alloys **(LO=97-100)**
Week – 4	Steel and wrought alloys **(LO=101-112)**	Casting **(LO=68-71)**	Casting **(LO=72-74)**
Week – 5	Requirements of impression materials **(LO=125-129)**	Requirements of impression materials **(LO=130-133)**	Non- Elastic impression materials **(LO=134)**
Week – 6	Non- Elastic impression materials **(LO=134)**	Non- Elastic impression materials **(LO=135)**	**TEST** **(LO=75-135)**
Week – 7	Elastic impression materials **(LO=136)**	Elastic impression materials **(LO=137)**	Elastic impression materials **(LO=138-139)**
Week –8	Elastic impression materials **(LO=140-141)**	Elastic impression materials **(LO=142)**	Elastic impression materials **(LO=143)**
Week -9	Synthetic Elastomers **(LO=144-147)**	Synthetic Elastomers **(LO=148-150)**	Synthetic Elastomers **(LO=151-156)**
Week -10	Ceramics **(LO=113-116)**	Ceramics **(LO=117-120)**	Ceramics **(LO=121-124)**
Week -11	Revision	Revision	Revision
Week –12	**Theory Examination** **Viva Examination**		

Weekly schedule of Module V PHARMACOLOGY			
Week Number	**Lecture 1**	**Lecture2**	**Lecture 3**
Week- 1	Antihypertensive drugs-1 **(LO=157)**	Antihypertensive drugs-2 **(LO=157)**	Diuretics-1 **(LO=157)**
Week- 2	Diuretics-2 **(LO=157)**	Drugs used in CCF **(LO=158)**	Antiarrythmic drugs-1 **(LO=158)**
Week- 3	Antiarrythmic drugs-2 **(LO=158)**	Antiarrythmic drugs-3 **(LO=158)**	Antiarrythmic drugs-4 **(LO=158)**
Week- 4	Antianginal drugs **(LO=158)**	Antianginal drugs **(LO=158)**	Thrombolytic & Antiplatelet **(LO=159)**
Week- 5	Oral anticoagulants **(LO=159)**	Parenteral anticoagulants **(LO=159)**	Emetics and Antiemetics **(LO=160)**
Week- 6	Antidiarrheal drugs and purgatives **(LO=160)**	IBD & Prokinetics **(LO=162)**	Penicillins **(LO=163)**
Week- 7	Cephalosporin **(LO=164)**	Tetracyclines **(LO=165)**	Aminoglycosides **(LO=166)**
Week- 8	Macrolides **(LO=167)**	Chloramphenicol **(LO=168)**	sulfonamides **(LO=169)**
Week- 9	Fluoroquinolones **(LO=170)**	Antituberculous drugs (1st Line) **(LO=173)**	Antihyperlipidemic **(LO=179)**
Week- 10	Anticancer-1 **(LO=176)**	Anticancer-2 **(LO=177)**	Antiviral drugs-1 **(LO=175)**
Week- 11	Antiviral drugs-2 **(LO=175)**	REVISION	REVISION
Week-12	**Theory Examination** **Viva Examination**		

Weekly schedule of Module V DEPARTMENT OF PATHOLOGY		
Week no.	**Lecture 1**	**Lecture 2**
Week – 1	Thrombosis(LO=195)	Gram Positive cocci and Staphylococcus (LO=192)
Week – 2	Thrombosis 2 (LO=195)	Streptococcal Infections (LO=193)
Week – 3	Embolism (LO=195)	Spores, resistance and incubation; Clostridium Species (LO=199)
Week – 4	Infarction (LO=186)	Classification of spore forming and Non Spore Forming Bacteria; Diphtheria (LO=200)
Week – 5	Shock (LO=204)	Gram Neg Rods and Lactose fermenting Rods; Features and Pathogenesis E.Coli (LO=203)
Week – 6	Nomenclature of neoplasia (LO=205-206)	Salmonella (LO=208)
Week – 7	Characteristics of benign and malignant Tumors (LO=205,206,209)	Pseudomonas (LO=210)
Week –8	Carcinogenesis(LO=212)	Basic Structure and classification of medically important viruses (LO=214)
Week -9	Tumor immunity(LO=215)	Influenza Virus (LO=216)
Week -10	Clinical features of tumor (LO=205)	Viral Hepatitis (LO=218,219,220)
Week -11	Tumor marker (LO=224)	HIV (LO=222)
Week –12	**Theory Examination** **Viva Examination**	

Commencement of Module V		Prosthodontics	
Activity	**Week**	**Laboratory Session**	**Tutorial Session**
Pre- Clinical Academic Session – BDS Second Professional	1.	**Upper posterior teeth setup**- Demonstration 246-248	Upper posterior teeth setup- Practice session
	2.	**Lower posterior teeth setup**- Demonstration 249	Lower posterior teeth setup- Practice session
	3.	**Carving and festooning**- Demonstration 250,251	Laboratory work
	4.	**Investment, Packing and curing**- Laboratory work	Prosthetic treatment modalities- Introduction to RPD ***Pre reading, Pre-assessment, Lecture, Post –assessment*** 252-259
	5.	**Finishing and polishing**- Laboratory work	Prosthetic treatment modalities- Introduction to FPD ***Pre reading, Pre-assessment, Lecture,Post –assessment*** 260-268
	6.	Laboratory work	**Summative class assessment**

Weekwise schedule of Module V Pre- Clinical Operative Dentistry		
Week no.	**Tutorials (Group A & B)**	**Skill Lab (Group A & B)**
W/1	• Introduction of Conservative/Operative Dentistry • Nomenclature of dentition & tooth numbering system **(LO 1-4)**	• Identify hand & Rotary Instruments with their function **(LO 5-9)**
W/2	• Describe Components of patient history • Documentation of history of patient **(LO 10-14)**	• Identify the parts of dental unit • Demonstrate about positioning the patients and the dentist in operatory **(LO 15-17)**
W/3	• Define Dental caries • Black & Graham Mount Classification of dental caries **(LO 18-21)**	• Demonstration of matrix band application **(LO 22,23,24a, b)**
W/4	• Discuss Steps for Class I cavity preparation **(LO 25-26)**	• Practice matrix band application • Use of lead apron & thyroid collar for X-ray taking **(LO22,23,24)**
W/5	• Discuss Cavity liners and bases **(LO 29)**	• Demonstration of Class I cavity preparation **(LO 25-26)**
W/6	• Explain Steps for amalgam placement in Class 1 cavity **(LO 27-28)**	• Practice of Steps of Class I cavity preparation **(LO 25-26)**

MODULE VI

	COMMUNITY & PREVENTIVE DENTISTRY	Teaching Method	Assessment Mode
	Behavioral Science		
1.	Define child psychology, human personality	IL	BCQs, SAQs, Viva
2.	Discuss theories involved in personality development	IL	BCQs, SAQs, Viva
3.	Discuss Freud developmental stages of personality	IL	BCQs, SAQs, Viva
4.	Discuss developmental theory by Erik erikson	IL	BCQs, SAQs, Viva
5.	Discuss behavior learning theories	IL	BCQs, SAQs, Viva
6.	Discuss classification of operant conditioning	IL	BCQs, SAQs, Viva
7.	Explain different behavior management techniques	IL,PBL	BCQs, SAQs, OSPE, Viva, PBL
	Research Methodology		
8.	Define statistics and biostatistics	IL,	BCQs, SAQs, OSPE, Viva
9.	Classify different types of research variables with examples	IL,	BCQs, SAQs, OSPE, Viva,
10.	Describe measures of central tendency	IL	BCQs, SAQs, Viva,
11.	Describe measures of dispersion	IL	BCQs, SAQs, Viva,
12.	Understand tests of significance	IL	BCQs, SAQs, Viva,

13.	Describe frequency distribution	IL	BCQs, SAQs, OSPE, Viva,
14.	Explain the concept of sampling error and types of error	IL,	BCQs
15.	Describe confidence interval and probability	IL,	BCQs, SAQs, Viva,
16.	Implement the Dental Health Education program	FV	Assign
17.	Evaluate the Dental Health education promotion program	FV	Assign
18.	Write Research draft (Results, discussion, conclusion)	SGD	Assign
	DENTIST-PATIENT COMMUNICATION		
19.	Recognize the dentist-patient communication and its benefits	IL	BCQs, SAQs, OSPE, Viva
20.	Discuss why good communication is important	IL	BCQs, SAQs, OSPE, Viva
21.	Explain the impact of good communication on patient's compliance	IL, PBL	BCQs, SAQs, OSPE, Viva, PBL
22.	Explain the impact of good communication on patient's anxiety reduction	IL, PBL	BCQs, SAQs, OSPE, Viva, PBL
23.	Explain the impact of good communication on patient's treatment outcome	IL, PBL	BCQs, SAQs, OSPE, Viva, PBL
24.	Discuss different models of dentist patient communication	IL	BCQs, SAQs, OSPE, Viva
25.	Describe the 3 different components of interpersonal communication (verbal , paralinguistic and non-verbal)	IL	BCQs, SAQs, OSPE, Viva
26.	Identify different zones of interaction in workplace	IL	BCQs, SAQs, OSPE, Viva
27.	Identify key skills of communication (active listening, information giving, positive negative talk, partnership, social conversation, art of listening & questioning, counseling,)	IL	BCQs, SAQs, OSPE, Viva

28.	Discuss dentist patient communication during examination and treatment	SGD	BCQs, SAQs, OSPE, Viva
29.	Discuss how to deal a crises and conflict situations in health setup	IL	BCQs, SAQs, OSPE, Viva
30.	Explain the use of informational care in a health setup	IL	BCQs, SAQs, OSPE, Viva
31.	Evaluate structure process and outcome of a good patient dentist communication setup	IL	BCQs, SAQs, OSPE, Viva
	SCIENCE OF DENTAL MATERIALS		
32.	Differentiate between direct and indirect restorations and give examples	IL	BCQs, SAQs,Viva OSPE
33.	Enumerate the requirements of direct filling materials	IL	SAQs
34.	Discuss composition of dental amalgam	IL	BCQs, SAQs, Viva
35.	Classify dental amalgam on basis of copper content, zinc content, shape of the alloy particle, number of alloy metals, and size of alloy	IL	BCQs, SAQs, OSPE, CQ
36.	Discuss manufacture of alloy powder	IL	SAQs, Assign
37.	Differentiate between amalgamation and trituration	IL	BCQs, SAQs, OSPE, Assign
38.	Explain the setting reaction of amalgam (ϒ phases).	IL	BCQs, SAQs, Assign, Viva
39.	Enlist the properties of amalgam.	PBL	BCQs, SAQs, Viva, PBL
40.	Define creep, tarnish and corrosion	PBL	SAQs, OSPE, PBL, Viva
41.	Discuss clinical handling of dental amalgam	IL	BCQs, SAQs, OSPE, Viva
42.	Discuss its manipulative variables including selection of materials, proportioning and dispensing, trituration , mulling , condensation, shaping and finishing	IL, VD	BCQs, SAQs, OSPE, Viva
43.	Discuss zinc free alloys	IL	SAQs, Viva

44.	Outline uses of dental amalgam	PBL	BCQs, SAQs, OSPE, Viva, PBL
45.	Compare dental amalgam with composite restorative materials	IL	BCQs, SAQs, Viva
46.	Discuss 'amalgam controversy'	IL	SAQs
47.	Discuss the previous use of silicate and acrylic resin as permanent filling materials	IL	BCQs, SAQs, Viva
48.	State the classification of composite resin according to the type of monomer, filler size and content, modes of activation and viscosity	IL	BCQs, SAQs, Viva
49.	State the composition, properties and use of self-cured composite	IL	BCQs, SAQs
50.	State the composition, properties and use of light activated composite resin	IL	BCQs, SAQs, Viva, Assign
51.	Discuss the different light systems used for activation of composite resin	IL	SAQs
52.	Discuss the various types of composites based on filler content and size	IL	SAQs, OSPE
53.	Discuss the effect of filler size and content on properties of composite	IL	BCQs, SAQs, OSPE, Viva.
54.	Discuss the clinical application of various types of composite resin	IL	BCQs, SAQs, OSPE, Viva.
55.	Explain the properties of resin based composites including biocompatibility, setting characteristics, polymerization shrinkage ,thermal properties, mechanical properties, surface hardness ,appearance, adhesion/bonding	PBL	BCQs, SAQs, OSPE, Viva, PBL, Assign
56.	Discuss factors affecting depth of cure	IL	BCQs, SAQs, Viva
57.	Discuss compensation for polymerisation shrinkage	IL	BCQs, SAQs, OSPE, Viva
58.	Describe C-factor	IL	BCQs, SAQs, PBL, Viva
59.	Discuss fiber reinforcement of composite structures and their use	IL	BCQs, SAQs, Viva.
60.	Differentiate between finishing and polishing	IL	BCQs

61.	Discuss the benefits of finishing and polishing	IL	BCQs, SAQs
62.	Discuss instruments used for finishing and polishing of composite restorations Enlist types of abrasives	IL	BCQs, SAQs, OSPE, Viva.
63.	Discuss immediate and delayed finishing	IL	BCQs, SAQs
64.	Discuss variables which may affect the finishing and polishing of composite restoration	IL	BCQs, SAQs, Viva
65.	Understand manipulation of light-cured composites through a video demonstration	VD	PW
66.	Briefly discuss acid etch systems.	IL	BCQs, SAQs, OSPE, Viva, Assign
67.	Describe enamel etching.	IL	BCQs, SAQs, OSPE, Viva
68.	Explain applications of acid etch technique.	IL	SAQs, OSPE, Viva.
69.	Explain dentine bonding.	IL	BCQs, SAQs, OSPE, Viva.
70.	Explain hybrid layer.	IL	BCQs, SAQs, Viva.
71.	Define smear layer.	IL	SAQs, Viva.
72.	Understand chemical structure of enamel and dentine.	IL	BCQs, SAQs, Viva
73.	Differentiate between primer and bonding agent.	IL	BCQs, SAQs, OSPE
74.	Discuss the generations of bonding systems	IL	BCQs, SAQs, Viva
75.	Compare and contrast total etch method and self-etching primer method	IL	BCQs, SAQs
76.	Discuss dry and wet bonding	IL	BCQs, SAQs, OSPE
77.	Understand and discuss bonding to alloys, amalgam and ceramics.	IL	BCQs, SAQs
78.	Briefly discuss bond strength resin with enamel and dentine	IL	BCQs, SAQs, Viva.

79.	Enlist the composition of conventional glass ionomer restorative material	IL	BCQs, SAQs
80.	Discuss its the setting reaction ,properties and uses	IL	BCQs, SAQs, Viva
81.	Discuss Cermets.	IL	BCQs, SAQs, Viva
82.	Discuss the sandwich technique and its applications.	IL	BCQs, SAQs, Viva
83.	Discuss ART	IL	BCQs, SAQs, Viva
84.	Compare glass ionomers with composite restorative materials	IL	BCQs, SAQs, Viva
85.	Discuss resin modified glass ionomers.	IL	BCQs, SAQs
86.	Enlist its composition and properties.	IL	SAQs, CQ
87.	Outline their clinical applications and handling	IL, VD	BCQs, SAQs
88.	Discuss giomers and compomers	IL	BCQs, SAQs, CQ, Viva
89.	Compare and contrast conventional glass ionomers with resin modified	IL	SAQs, OSPE, Viva
90.	Explain the need for temporization	IL	BCQs, SAQs
91.	Enlist the requirements for temporary crown and bridge resins	IL	SAQs, Viva
92.	Discuss the types, composition and properties of temporary crown and bridge resins	IL	BCQs, SAQs, Viva.
93.	Explain direct and indirect technique for making temporary crown and bridge	IL	SAQs, OSPE, Viva.
94.	State the uses of dental cements and give examples	IL	BCQs, SAQs, OSPE, Viva.
95.	Differentiate between a liner and base	IL	BCQs, SAQs, OSPE, Viva.
96.	Discuss the requirements of cavity liner/base	IL	BCQs, SAQs, OSPE, Viva.
97.	Discuss the requirements of luting cement	IL	BCQs, SAQs,

			OSPE, Viva.
98.	State the requirements of endodontic cements	IL	BCQs, SAQs, Viva
99.	State the requirements of orthodontic cements	IL	BCQs, SAQs, OSPE, Viva.
100.	Enlist cements based on phosphoric acid.	IL	SAQs
101.	Enlist the composition ,properties and uses of zinc phosphate cements	IL	BCQs, SAQs,Viva
102.	Discuss silicophosphate cements.	IL	SAQs, Viva.
103.	Discuss copper cements	IL	BCQs, SAQs
104.	Enlist cements based on organometallic chelate compounds.	IL	SAQs, Viva.
105.	Classify zinc oxide eugenol cements.	IL	SAQs, OSPE
106.	Enlist the composition, properties and uses zinc oxide eugenol cements.	IL	BCQs, SAQs
107.	Discuss ortho-ethoxybenzoic acid (EBA) cements.	IL	BCQs, SAQs
108.	Enlist the composition, properties and uses of calcium hydroxide cements	IL	BCQs, SAQs, Viva
109.	Explain pulp capping	PBL	BCQs, SAQs, OSPE, Viva, PBL
110.	Discuss the composition, properties and uses of polycarboxylate cements	IL	SAQs, Viva
111.	Discuss the composition, properties and uses of glass ionomer cements	IL	BCQs, SAQs, OSPE, Viva
112.	Discuss the composition, properties and uses of resin modified glass ionomer cement	IL	BCQs, SAQs, OSPE, Viva
113.	Compare and contrast dental cements belonging to different groups	IL	BCQs, SAQs
114.	State the objectives of endodontics	IL, SGD	BCQs, SAQs, OSPE, Viva.
115.	List the different materials used during endodontic treatment	IL, SGD	BCQs, SAQs, OSPE, Viva.

116.	State ideal requirements for lubricants and irrigants and give examples	IL, SGD	BCQs, SAQs, OSPE, Viva.
117.	Discuss intracanal medicaments	IL, SGD	BCQs, SAQs, OSPE, Viva.
118.	Discuss sealants and their properties	IL	CQs, OSPE
119.	Discuss bulk filling materials in endodontic treatment	IL	CQs, OSPE, Viva
120.	Classify dental implants	IL	BCQs, OSPE, Viva
121.	Enlist materials for dental implants	IL	BCQs, OSPE, Viva
122.	State uses of dental implants	IL	BCQs, OSPE, Viva.
123.	Discuss advantages and disadvantages of dental implants	IL	OSPE, Viva.
124.	Explain osteointegration	IL	OSPE.
125.	Discuss biocompatibility of dental implants	IL	OSPE.
	PATIENT SAFETY		
126.	Discuss 'amalgam controversy'	IL	SAQs
127.	Outline the safety concerns regarding mercury in dental amalgam and its potential hazards.	IL	BCQs, SAQs, Viva.
	COMMUINCATION SKILLS/Professionalism		
128.	Outline uses of dental amalgam	PBL	BCQs, SAQs, OSPE, Viva, PBL
129.	Explain pulp capping (Poster, Oral Presentation and PBL)	PBL	PBL, Viva, SAQs.
	PHARMACOLOGY		
130.	Present a detailed account of mechanism of action, clinical uses and adverse effects of benzodiazepines & barbiturates	IL	BCQs, SAQs, Viva
131.	Describe the mechanism and adverse effects of various groups of anti-epileptic drugs	IL	BCQs, SAQs, Viva
132.	Discuss mechanism of action of general anesthetic agents	IL, Assignment	BCQs, SAQs, Viva

133.	Explain merits, demerits and adverse effects of intravenous and inhalational anesthetic agents	IL, Assignment	BCQs, SAQs, Viva
134.	Present the pharmacokinetics and pharmacodynamics of local anesthetic drugs	IL, SGD	BCQs, SAQs, Viva
135.	Describe the mechanism, uses and adverse effects of skeletal muscle relaxants	IL	BCQs, SAQs, Viva
136.	Present pharmacokinetics and pharmacodynamics of important anti-parkinsonian drugs	IL	BCQs, SAQs, Viva
137.	Describe mechanism, uses and adverse effects of antipsychotic drugs and lithium	IL	BCQs, SAQs, Viva
138.	Classify the various antidepressant drug groups according to their mechanism of action and discuss pharmacological details	IL	BCQs, SAQs, Viva
139.	Describe the pharmacological properties, uses and adverse effects of alcohol	IL	BCQs, SAQs, Viva
140.	Describe the mechanism of action, uses and adverse effects of CNS stimulants	IL	BCQs, SAQs, Viva
141.	Discuss the pharmacological properties and uses of anti-thyroid drugs	IL,SGD	BCQs, SAQs, Viva
142.	Describe the mechanism of action and adverse effects of female sex hormones	IL	BCQs, Viva
143.	Recall the clinical uses of female sex hormones	IL	BCQs, Viva
144.	Briefly explain the mechanism of action, clinical uses and adverse effects of male sex hormones	SGD	BCQs, Viva
145.	Describe the pharmacokinetics and pharmacodynamics of oral anti-diabetic drugs	IL, Assignment	BCQs, SAQs, Viva
146.	Discuss parenteral drug treatment of diabetes mellitus in detail	IL, Assignment	BCQs, SAQs, Viva
147.	Develop a basic understanding of pharmacogenetics	IL	BCQs, Viva
148.	Reproduce the pharmacological properties of parathyroid hormone	SGD	BCQs, Viva
149.	Give a thorough account of the pharmacological properties of antifungal drugs	IL	BCQs, SAQs,Viva

150.	Explain the mechanism of action, clinical uses and adverse effects of anti-protozoal drugs	IL, SGD	BCQs, SAQs,Viva
151.	Interpret the effects of lignocaine and procaine on the legs of frog	Lab skills	OSPE, JV
152.	Identify the slides and write down the treatment of the causative Helminth / Protozoa	Lab skills	OSPE, JV
153.	Identify and write down the characterstics of the given Pharmacognosy specimen	Lab skills	OSPE, JV
154.	Interpret the effect of strychnine and picrotoxin on the CNS of frog	Lab skills	OSPE, JV
155.	Identify parts of a prescription order	Lab skills	OSPE, JV
156.	Write down prescriptions for different diseases	Lab skills	OSPE, JV
	PATHOLOGY		
157.	Illustrate the immune responses with the help of flow diagram	ILD	BCQ
158.	Describe the role of antibodies and complement system in immune responses.	ILD	BCQ/SAQ
159.	Comprehend the role of MHC in transplant rejection	ILD	BCQ/SAQ
160.	Relate the loss of central and peripheral tolerance to the development of different autoimmune diseases and the subsequent clinical effects	SGD	SAQ/BCQ
161.	Classify the immunodeficiency disorders on the basis of deficiency of major immune components and clinical consequences	SGD	BCQ/SAQ
162.	Compare hypersensitivity reactions (type I, type II, type III, and type IV) on the basis of underlying mechanism along with relevant examples.	SGD	SAQ/BCQ
163.	Compare the different patterns of inheritance of single gene disorders,(i.e. autosomal dominant, autosomal recessive, X-linked dominant/recessive and Y- linked disorders)	ILD/SGD	BCQ/SAQ
164.	Differentiate between single gene disorders with atypical patterns of inheritance and Mendelian disorders on the basis of characteristics of inheritance	ILD	BCQ/SAQ
165.	Explain chromosomal disorders, involving autosomes and sex chromosomes, as regards to the underlying chromosomal abnormality, risk factors and clinical features	IL	SAQ/BCQ
166.	Interpret normal and abnormal karyotypes and describe them using shorthand system of notation.	IL	BCQ/SAQ
167.	Classify and discuss pathogenesis of medically important fungi	IL	BCQ

168.	Discuss clinical presentation and laboratory diagnosis of cutaneous, subcutaneous and opportunistic mycoses	IL	SAQ
169.	Classify parasites on the basis of different morphological structures and their site of infection	IL	BCQ/SAQ /OSCE
170.	Describe etiology, mode of transmission, pathogenesis, control and preventive strategies of common pathogens (Entamoeba Histolytica, giardia lamblia, cryptosporidium, trichomonas vaginalis)	IL	BCQ/SAQ
171.	Describe etiology, mode of transmission, pathogenesis, lab diagnosis and preventive measures of pneumocystis and toxoplasmosis	IL	BCQ/SAQ /AS
172.	Describe the etiology, mode of transmission, lab diagnosis and preventive measures of plasmodium.	IL	BCQ/SAQ
173.	Describe etiology, mode of transmission, lab diagnosis and preventive measures of leishmania.	SGD	BCQ/SAQ
174.	Describe the etiology, mode of transmission, lab diagnosis and preventive measures of Cestodes (Taenia).	IL	BCQ/SAQ
175.	Describe the etiology, mode of transmission, control and preventive strategies of Echinococcus Granulosis.	IL	BCQ/SAQ
176.	Describe the etiology, mode of transmission, pathogenesis, control and preventive strategies for intestinal nematodes (Entrobius, trichuris, Ascaris lumbricoides)	IL	OSCE/BCQ/SAQ
177.	Describe the etiology, mode of transmission, control and preventive strategies for parasitic diseases of public health importance: Ankylostomaduodenale.	IL	BCQ/SAQ
178.	Describe the etiology, mode of transmission, control and preventive strategies for parasitic diseases of public health importance: strongyloides.	SGD	SAQ/BCQ
179.	Identify histopathological features of papilloma	SGD	BCQ/AS
180.	Identify histopathological features of Basal cell carcinoma	SGD	SAQ/BCQ
181.	Identify histopathological features of malignant melanoma.	SGD	BCQ
182.	Identify histopathological features of squamous cell carcinoma	IL	BCQ
183.	Identify histopathological features of osteochondroma and osteosarcoma	IL	SAQ/BCQ
184.	Identify gross morphological features of Malignant melanoma	IL	BCQ
185.	Identify gross morphological features of osteosarcoma	IL	BCQ/SAQ
186.	Identify gross morphological features of adenocarcinoma pylorus	LAB SKILLS	OSCE/VIVA
187.	Identify gross morphological features of Malignant melanoma	LAB SKILLS	OSCE/VIVA

188.	Identify gross morphological features of Adenocarcinoma-rectum	LAB SKILLS	OSCE/VIVA
189.	Identify gross morphological features of squamous cell carcinoma cervix	LAB SKILLS	OSCE/VIVA
190.	Identify gross morphological features of angle of mouth	LAB SKILLS	OSCE/VIVA
191.	Discuss the pathogenesis and lab diagnosis of Candida albicans	LAB SKILLS	OSCE/VIVA
192.	Identify different parasites in stool examination	LAB SKILLS	OSCE/VIVA
193.	Discuss the pathogenesis and lab diagnosis of plasmodium in different stages of its development	LAB SKILLS	OSCE/VIVA
194.	Discuss the pathogenesis of Ascaris lumbricoides	LAB SKILLS	OSCE/VIVA
195.	Illustrate the immune responses with the help of flow diagram	LAB SKILLS	OSCE/VIVA
196.	Describe the role of antibodies and complement system in immune responses.	LAB SKILLS	OSCE/VIVA
197.	Comprehend the role of MHC in transplant rejection	LAB SKILLS	OSCE/VIVA
198.	Relate the loss of central and peripheral tolerance to the development of different autoimmune diseases and the subsequent clinical effects	LAB SKILLS	OSCE/VIVA
199.	Classify the immunodeficiency disorders on the basis of deficiency of major immune components and clinical consequences	LAB SKILLS	OSCE/VIVA
200.	Compare hypersensitivity reactions (type I, type II, type III, and type IV) on the basis of underlying mechanism along with relevant examples.	LAB SKILLS	OSCE/VIVA
201.	Compare the different patterns of inheritance of single gene disorders,(i.e. autosomal dominant, autosomal recessive, X-linked dominant/recessive and Y- linked disorders)	LAB SKILLS	OSCE/VIVA
202.	Differentiate between single gene disorders with atypical patterns of inheritance and Mendelian disorders on the basis of characteristics of inheritance	LAB SKILLS	OSCE/VIVA
	PRE-CLINICS- OPERATIVE DENTISTRY		
203.	Manipulate lining material/filling materials	SGD/Skill Lab	OSCE
204.	Demonstrate placement of lining on acrylic tooth	Skill Lab	OSCE
205.	Perform filling of Amalgam in Class I tooth cavities	Skill Lab	OSCE
206.	Illustrate steps of Class II Slot preparation	SGD/Skill Lab	BCQs/SAQs
207.	Prepare Class II Slot cavity on plaster models/ acrylic teeth in phantom lab	SGD/Skill Lab	BCQs
208.	Restore Class II Slot preparation with amalgam	SGD/Skill Lab	BCQs/SAQs

209.	Discuss steps of Class II MO/DO/ MOD cavity design	SGD/Skill Lab	OSCE
210.	Execute Class II MO/DO cavity design on plaster models/ acrylic teeth in phantom lab.	Skill Lab	BCQs/SAQs/OSCE
211.	Perform Class II MOD cavity design on plaster models/ acrylic teeth in phantom lab.	Skill Lab	BCQs/SAQs/OSCE
212.	Demonstrate restoration of Class II MO/DO/MOD preparation with amalgam	SGD/Skill Lab	BCQs/SAQs
213.	Explain purpose of Acid Etching of Enamel/Dentin	IL/SGD	BCQs /SAQs
	Demonstrate bonding to enamel and dentine	IL/SGD	BCQs /SAQs
214.	Describe Composite as a restorative material	SGD	BCQs /SAQs
215.	Discuss steps of Class III cavity preparation	SGD/Skill Lab	BCQs /OSCE
216.	Propose steps of Class IV cavity preparation	SGD/Skill Lab	BCQs/SAQs/OSCE
217.	Prepare Class III cavity on plaster models/ acrylic teeth in phantom lab.	Skill Lab	OSCE
	Prepare Class IV cavity design on plaster models /acrylic teeth in phantom lab	Skill Lab	OSCE
218.	Apply Etchant on the tooth cavities	SGD	BCQs /SAQs
219.	Use bonding agent on the tooth cavities	SGD	BCQs /SAQs
220.	Demonstrate how composite is placed in Class III/IV tooth cavities	Skill Lab	OSCE
221.	Perform the finishing and polishing of composite restoration	Skill Lab	OSCE
222.	***Commination Skill***		
223.	Presentation		
224.	**Teaching strategies** IL*= Interactive large group discussion SGD*= Small group discussion Skill Lab*= Phantom Lab	**Assessment tools** BCQs=Best choice questions SAQs= Short Assays Questions OSCE= Oral Structured & Clinical Exam	
Leadership and Management			
225.	Understand the concept of quality improvement in dental care.	SGD	BCQs /SAQs
226.	Identify strategies for implementing and sustaining quality improvement initiatives in a dental practice.	SGD	BCQs /SAQs
227.	Recognize ethical challenges in dental practice management.	SGD	BCQs /SAQs
228.	Understand legal responsibilities related to patient care, employment, and business operations in a dental setting.	SGD	BCQs /SAQs

ACADEMIC SCHEDULE

Department of Community &Preventive Dentistry

Department of Science of Dental Materials

Department of Pre-clinics (Prosthodontics and Operative Dentistry)

Department of Pharmacology

Department of Pathology

Weekly schedule of Module VI **Community & Preventive Dentistry**		
Week no.	**Lecture 1**	**Lecture 2**
Week – 1	Sociology I L.O (1-2)	Sociology II L.O (3-4)
Week – 2	Behaviour Management I L.O (10)	Behaviour Management II L.O (10)
Week – 3	Child psychology I L.O (8-9)	Child psychology II L.O (8-9)
Week – 4	Stress/ Anxiety L.O (5-6)	Delay in seeking help L.O (7)
Week – 5	Stress/ Anxiety L.O (5-6)	Delay in seeking help L.O (7)
Week – 6	Patient dentist communication L.O (23-35)	**Class assessment test**
Week – 7	COMMUNITY FIELD TRIP	
Week –8	Introduction to biostatistics L.O (11-13)	Types of sampling I L.O (19)
Week -9	Types of sampling II L.O (19)	Measures of Central Tendency/ dispersion L.O (14, 15, 17, 19)
Week -10	Tests of significance L.O (16)	Concept of sampling error L.O (18)
Week -11	Revision	Revision
Week –12	**Theory Examination** **Viva Examination**	

Weekly schedule of Module VI Science of Dental Materials			
Week no.	**Lecture 1**	**Lecture 2**	**Lecture 3**
Week – 1	Requirements of direct filling materials **(LO=36)**	Requirements of direct filling materials **(LO=37)**	Dental Amalgam **(LO=38-40)**
Week – 2	Dental Amalgam **(LO=41-43)**	Dental Amalgam **(LO=44-46)**	Dental Amalgam **(LO=47-50)**
Week – 3	Resin based filling materials **(LO=51-56)**	Resin based filling materials **(LO=57-62)**	Resin based filling materials **(LO=63-69)**
Week – 4	Adhesive restorative materials **(LO=70-73)**	Adhesive restorative materials **(LO=74-77)**	Adhesive restorative materials **(LO=78-82)**
Week – 5	GIC **(LO=83-85)**	GIC **(LO=86)**	GIC **(LO=87-88)**
Week – 6	Resin- modified GIC **(LO=89-90)**	Resin- modified GIC **(LO=91-92)**	Resin- modified GIC **(LO=93)**
Week – 7	Temporary crown and bridge **(LO=94-95)**	Temporary crown and bridge **(LO=96-97)**	TEST **(36-97)**
Week –8	Requirements of dental cement **(LO=98-100)**	Requirements of dental cement **(LO=101-103)**	TEST
Week -9	Cements based on phosphoric acid **(LO=104-105)**	Cements based on phosphoric acid **(LO=106-107)**	Cements based on organometallic chelate compounds **(LO=108-110)**
Week -10	Cements based on organometallic chelate compounds **(LO=111-113)**	Polycarboxylate cements **(LO=114-115)**	Polycarboxylate cements **(LO=116-117)**
Week -11	Endodontics **(LO=118-123)**	Endodontics **(LO=124-129)**	Revision
Week –12	**THEORY EXAMINATION AND VIVA EXAMINATION**		

Weekly schedule of Module VI PHARMACOLOGY			
Week no.	**Lecture 1**	**Lecture 2**	**Lecture 3**
Week – 1	Benzodiazepines **(LO=134)**	Barbiturates **(LO=134)**	Anti-epileptic drugs-1 **(LO=135)**
Week – 2	Anti-epileptic drugs-2 **(LO=135)**	General Anaesthetics-1 **(LO=136)**	General Anaesthetics-2 **(LO=137)**
Week – 3	General Anaesthetics-3 **(LO=137)**	Local Anaesthetics-1 **(LO=138)**	Local Anaesthetics-2 **(LO=138)**
Week – 4	Anti-Parkinsonian drugs-1 **(LO=140)**	Anti-Psychotic drugs-1 **(LO=141)**	Anti-Psychotic drugs-2 **(LO=141)**
Week – 5	Anti-depressant Drugs-1 **(LO=142)**	Anti-depressant Drugs-2 **(LO=142)**	Alcohol **(LO=143)**
Week – 6	Female sex hormones-1 **(LO=146)**	Female sex hormones-2 **(LO=147)**	Oral hypoglycemic drugs-1 **(LO=149)**
Week – 7	Oral hypoglycemic drugs-2 **(LO=149)**	Insulin-1 **(LO=150)**	Insulin-2 **(LO=150)**
Week –8	Pharmacogenetics **(LO=151)**	Anti-fungal drugs-1 **(LO=153)**	Anti-fungal drugs-2 **(LO=153)**
Week -9	Anti-malarial drugs **(LO=154)**	Anti-amebic drugs **(LO=154)**	Anti-thyroid drugs **(LO=145)**
Week -10	Skeletal muscle relaxants **(LO=139)**	CNS stimulants **(LO=144)**	Revision
Week -11	Revision	Revision	Revision
Week –12	**THEORY EXAMINATION AND VIVA EXAMINATION**		

Weekly schedule of Module VI

DEPARTMENT OF PATHOLOGY		
Week no.	**Lecture 1**	**Lecture 2**
Week – 1	Immune response(LO=158)	HPV (herpes)(LO=157)
Week – 2	Cells of immune system(LO=159)	Introduction to Mycology(LO=170)
Week – 3	Hypersensitivity reactions type I &II(LO=148)	Candida Albicans(LO=170)
Week – 4	Hyper sensitivity reactions type – III & IV(LO=163)	EntamoaebaHystolitica(LO=173)
Week – 5	Immune tolerance(LO=165)	Plasmodium (LO=174)
Week – 6	Auto immune disorders(LO-165)	Ascaris lumbricoides (LO=176)
Week – 7	Primary immune deficiency disorders(LO=166)	Mumps and Measles(LO=182)
Week –8	Secondary immune deficiency disorders(LO=166)	Leishmaniasis-I (LO=183,184)
Week -9	Single gene disorders-I(LO=169)	Leishmaniasis-II (LO=183,184)
Week -10	Single gene disorder –II(LO=169)	Other Protozoa of medical Importance (LO=175)
Week -11	Single gene disorders with atypical pattern of inheritance(LO=171,172)	Other Fungi of Medical importance (LO=167)
Week –12	**THEORY EXAMINATION AND VIVA EXAMINATION**	

Weekwise schedule of Module VI Pre- Clinical Operative Dentistry BDS Second Professional		
Week no.	**Tutorials (Group A & B)**	**Skill Lab (Group A & B)**
W/1	• Discuss Steps for Class V cavity preparation **(LO 29-34)**	• Practice for amalgam placement in Class I cavity **(LO 27-28)**
W/2	• Explain Steps of Class II Slot cavity Design **(LO 35-36)**	• Demonstrate steps of Class II Slot preparation for amalgam **(LO 37)**
W/3	• Describe Restoration of Class II Slot preparation with amalgam **(LO 37)**	• Practice of Class II Slot preparation **(LO 37)**
W/4	Discuss Class II MOD cavity Design for Amalgam **(LO 38-39)**	• Practice of Class II Slot preparation (LO 37)
W/5	• Restoration of Class II MOD cavity Design for Amalgam **(LO 38-39)**	• Demonstrate Class II MO/DO /MOD cavities preparation **(LO 40-41)**
W/6	• Explain Bonding to enamel and dentine & Composite as a restorative material **(LO 42-44)**	• Practice Class I, II, MOD cavities preparation **(LO 25-39)**
W/7	• Discuss Steps of Class III and Class IV cavity preparation **(LO 45-46)**	• Practice Class I, II, MOD cavities preparation **(LO 25-39)**
W/8	Describe placement of composite Restoration **(LO 52)**	• Demonstrate Class III cavity on plaster models & restore it with composite **(LO 47-48)**
W/9	• Describe Finishing and polishing of composite Restoration (**LO 52)**	• Demonstrate how composite is placed in Class IV tooth cavities **(LO 49-51**)
W/10	Revision of cavity preparation **(LO 25-51)**	• Revision of cavity preparation **(LO 25-51)**
W/11	Revision of cavity preparation **(LO 25-51)**	• Revision of cavity preparation **(LO 25-51)**
W/12	**THEORY EXAMINATION AND VIVA EXAMINATION**	

LEARNING RESOURCES

DEPARTMENT OF COMMUNITY & PREVENTIVE DENTISTRY

1. Burt, B. &Eklund, S. (2005) Dentistry, Dental Practice & The Community. 6th ed. Saunders
2. SS Hiremath, (2009), textbook of Preventive and Community Dentistry
3. Daly B, Watt R, Batchelor P & Treasure E (2013) Essential Dental Public Health, Oxford University Press.
4. Smeeton Nigel (2012) Dental Statistics Made Easy 2nd edition Radcliffe Publication
5. Essential of Preventive and Community Dentistry Soben Peter (Latest Edition)
6. Text Book of Preventive and Community Dentistry Joseph John (Latest Edition)

DEPARTMENT OF SCIENCE OF DENTAL MATERIALS

7. Applied Dental Materials, John F McCabe (Latest Edition)
8. Philips Science of Dental Materials, Kenneth J. Anusavice (Latest Edition)
9. Sturdevant Art and Science of Operative Dentistry, Harald O Heyman, Edward J Swift.(Latest Edition)
10. Craig's Restorative Dental Materials, John M Powers Ronald L Sakaguchi. (Latest Edition)

DEPARTMENT OF OPERATIVE DENTISTRY

11. Joseph R Evans, John H Wilke. Atlas of Operative Dentistry: Preclinical and clinical procedures. Quintessence books Publishing Co.
12. Richard L Kahn, Pinkerton RJ, Kagihara LE. Fundamentals of Preclinical Operative Dentistry.
13. Pickardards Manual of Operative Dentistry by EAM Kidd.
14. Fundamentals of Operative Dentistry by Schwartz

15. Dental Restorative Materials – Craig

DEPARTMENT OF PHARMACOLOGY

16. Lazo JS & Parker. Goodman and Gillman's The Pharmacological basis of therapeutics 12th edition McGrawHillCompany,USA 2006.
17. Katzung BG, Masters SB & Trevor AJ. Basic and Clinical Pharmacology-Katzung 14th edition TATA McGrawHill Education Private Ltd, New Delhi 2009.
18. Finkel R Cubeddu L X, Clark MA, Harvey R &Champe P. Lippincott's Illustrated Reviews Pharmacology. 7th edition, Wolters Kluwer-Lippincott Williams & Wilkins New Delhi 2009.

DEPARTMENT OF PATHOLOGY

19. Peter D. Turnpenny, Emery's Elements of Medical Genetics (14thed.). New York: Churchill Livingstone. 2011.
20. Cotran RS, Kumar V and Collins T. Robbin's Pathologic Basis of Disease (8thed.). Philadelphia: W.B. Saunders. 2010.
21. Walter JB and Talbot IC. Walter and Israel's General Pathology (7thed.). New York: Churchill Livingstone. 1996.
22. Kumar V, Cotran RS, and Robbins SL. Basic Pathology (8thed.). Philadelphia: W.B. Saunders. 2007.
23. Rubin E, Pathology (4thed.) Philadelphia: Lippincott-Raven. 2005
24. Ivan Roitt. Riott's Essential Immunology (11thed.). New Delhi:I.K. International Pvt. Ltd. 2007.
25. Harsh Mohan. Textbook of pathology. 6th ed. Jaypee broth. 2010.

ATLAS:

26. Wheater P et al. Basic Histopathology: A Color Atlas and Text (2nded.). Edinburgh: Churchill Livingstone. 1990.
27. Harsh Mohan. Pathology practical book. 2nd ed. Jaypee broth. 2007.

Microbiology

28. Jawetz .medical microbiology.25th ed.2010 Lange/McGrawHill
29. Levinson W. Microbiology and Immunology: Review. 10th ed. 2009 Lange/TataMcGrawHill

30. Michael j pelczar .Microbiology.6th ed. TataMcGraw

31. Richard a harvey. Microbiology.lippincottsillustrated review 2nd edition.

WEBSITES

Department of Community & Preventive Dentistry

http://www.who.int/en/
http://www.nhs.uk/Pages/HomePage.aspx

http://www.ada.org/

http://www.bda.org

Department of Pharmacology

www.studentcorner.com
www.drugs.com
www.pharmacology.com
www.medicalstudent.com

Department of Pathology

The internet pathology laboratory for medical education
library.***med***.utah.edu/WebPath/webpath.html

Microbiology

www.asm.org