

# **DENTAL COLLEGE HITEC-IMS**

Study Guide Y2 - B2 - D24

2<sup>nd</sup> Year BDS

Block 2

**Coordinator: Dr. Shahreen Zahid** 



Blessed are they who hold lively conversations with the helplessly mute, for they shall be called dentists.

— Ann Landers —

AZ QUOTES

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### • LIST OF ABBREVIATIONS

<ul><li>PMDC</li></ul>	Pakistan Medical & Dental Council
<ul><li>NUMS</li></ul>	National University of Medical Sciences
• LGIS	Large Group Interactive Session
• SGD	Small Group Discussion
• SDL	Self-Directed Learning
• CBL	Case Base Learning
• LGIF	Large Group Instructional Format
• MIT	Mode of Information Transfer
• EOB	End of Block Examination
• TOS	Table of Specification
<ul><li>OSPE</li></ul>	Objectively Structured Practical Examination
<ul><li>OSCE</li></ul>	Objectively Structured Clinical Examination
• SEQ	Structured Essay Questions
<ul><li>SAQ</li></ul>	Short Answer Question
<ul><li>MCQ</li></ul>	Multiple Choice Question
<ul><li>ANS</li></ul>	Automatic Nervous System
• GIT	Gastrointestinal Tract
• EECS	Early Exposure to Clinical Skills
• FGD	Focus Group Discussion
<ul><li>WFME</li></ul>	World Federation of Medical Education



#### NUMS VISION

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The vision of the National University of Medical Sciences is to improve the quality of life through education, research, innovation, and healthcare, thereby contributing to endeavors to make Pakistan and this world a better place to live in.

#### **3 INSTITUTIONAL VISION**

Leading advancement in Oral & Dental health through excellence in Education, patient care and research

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#### **5 INSTITUTIONAL MISSION**

To serve the local and global communities by producing competent, ethical, socially responsible, research oriented and life long learning oral health care professionals

### **6 BLOCK COMMITTEE**

Coordinator, Chair Block Curriculum Committee: Associate Professor Dr. Shahreen Zahid Khan

Head of Department, Dental Materials. Contact No: 0333-4341988

S. No.	Name	Designation	Departments	Contact Number	
1.	Dr Rai Tariq	Professor	Community Dentistry	0333-5718658	
3.	Dr Shahreen Zahid	Associate Professor	Dental Materials	0333-4341988	
4.	Dr Shazana Rana	Associate Professor	Pharmacology	0332-5272131	
5.	Dr Sadia Israr	Assistant Professor	General Pathology	0320-5079151	
6.	Dr Sharaz Ahmed	Assistant Professor	Preclinical Operative	0335-5067704	
7.	Dr Sameen Zahra	Assistant Professor	Preclinical Prosthodontics	0333-5641998	
8.	Dr Faizan Munir	Assistant Professor	Dental Education	0334-0031031	
9.	Miss Amna Fayyaz	Lecturer	Behavioural Sciences	0343-0701997	
10.	Maryam Zia	Student	GR, 3 <sup>rd</sup> Year	0333-5482253	
11.	Muhammad Haseeb	Student	CR, 3 <sup>rd</sup> Year	0316-4840201	

#### CURRICULUM OVERVIEW/IMPLEMENTATION

#### Preface

The curriculum meets the standards of the Pakistan Medical & dental council, the Higher Education Commission of Pakistan, and the World Federation of Medical Education. Therefore, upon completing the program, our students have the required competencies defined worldwide in a graduate doctor.

#### Model

The curriculum of Dental College, HITEC-IMS is based on the traditional, discipline-based model of educational strategies. However, we have incorporated some elements of SPICES model i.e., it's student-centred, integrated, community-oriented and systematic aspects. As a result, our curriculum has evolved, considering traditional, experiential, behavioural, constructivist, and attributional perspectives of curricula.

#### Organization

The curriculum is organized and integrated along important vertical and horizontal dimensions. The content taught is integrated concurrently in a horizontal organization and vertically across the four years of BDS program. The course of the second year is divided into three blocks. In each block, the sequencing of the content is logical and integrated.

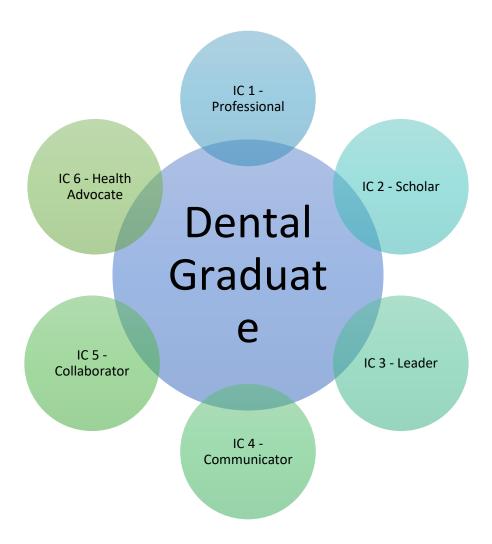
#### **Teaching Strategies**

Multiple teaching strategies are used. LGIS are used to provoke thought, understanding and to standardise the delivery of the concept. It helps them to understand the general theme or subject matter, updated research, and best evidence medical information. We are teaching clinical implications of each topic to integrate basic and clinical sciences. This encounter is based on experience that is contextual, realistic, and relevant. Small group discussions encourage students to learn socially and refine their schemas. Working in laboratories provides experiential and hands-on learning.

#### Assessment

The summative assessment includes end block and pre-annual examination. Formative assessment is based on assignments, presentations, flipped classroom, journal clubs, quizzes, and class tests. After the block exams and the end of the academic year, a pre-annual examination will be conducted according to the standards outlined by NUMS.

### 1. INSTITUTIONAL COMPETENCY FRAMEWORK



# 2. ALIGNMENT OF BLOCK OUTCOMES WITH INSTITUTIONAL COMPETENCIES

S. No.	Block Outcomes	Institutional Competencies
1.	Correlate the management of general pathological and community based diseases in subsequent years of training and practice	IC 1 to IC 6
2.	Correlate the basic properties of auxiliary and restorative materials with their application in the laboratory and relevant clinical conditions in a spiral manner	IC 1, IC 2, IC 6
3.	Explain the use of instruments in restorative work with specific relevance to caries	IC 1 to IC 6
4.	Integrate the fundamental concepts of sociology, anthropology and psychology with ethical, medical and dental practice considerations	IC 1 to IC 6
5.	Apply a constructivist approach to developing academic writing skills along with biostatistics	IC 1, IC 2, IC 4

# 3. ACADEMIC CALENDAR

Commencement of Classes – 29th January 2024						
BLOCK - 1 (11+1=12 WEEKS)						
	(29 <sup>th</sup> January 20	024 to 26 <sup>th</sup> April 2024)				
Activity Duration From To						
Academics	11weeks	29 <sup>th</sup> January 2024	26 <sup>th</sup> April 2024			
Sports Week	01 week	26 <sup>th</sup> Feb 2024	4 <sup>th</sup> March 2024			
Block Assessment	01 week	29 <sup>th</sup> April 2024	6 <sup>th</sup> May 2024			
Eid ul Fitr	1 week	8 <sup>th</sup> April 2024	12 <sup>th</sup> April 2024			
	Block - 2 (	11+1=12 Weeks)				
	(8 <sup>th</sup> May 2024	to 16 <sup>th</sup> August 2024)				
Academics	11 weeks	8 <sup>th</sup> May 2024	15 <sup>th</sup> August 2024			
Eid-Ul Azha+ Summer	04 weeks	17 <sup>th</sup> June 2024	15 <sup>th</sup> July 2024			
Vacations						
Block Assessment	01 week	16 <sup>th</sup> August 2024	23 <sup>rd</sup> August 2024			
	Block - 3 (	12+2=14 Weeks)				
	(27 <sup>th</sup> August 2024	to 15 <sup>th</sup> November 2024)				
Academics	12 weeks	27 <sup>th</sup> August 2024	15 <sup>th</sup> November 2024			
Send-Up	02 weeks	18 <sup>th</sup> November 2024	29 <sup>th</sup> November 2024			
Pre-Prof Leave	4 weeks	30 <sup>th</sup> November 2024	30 <sup>th</sup> Dec 2024			
2 <sup>nd</sup> Professional Exam (Tentative)	31 <sup>st</sup> of December 2024					

# 4. SAMPLE TIMETABLE

Day	8:30-9:20	9:20-10:15	10:1	5-11:05	11:05-11:20	11:20-12:10	12	2:10-1:00	1:00-1:30	1:30-2:30	2:30-3:30
	Community de mat	ntistry-A / Der erial-B	Pharn	nacology		Dental Material Integrated	s Commu	inity Dentistry		Pharmacology	
Monday	Pra	actical	1	LGIS		LGIS		LGIS		Tut	orial
	A-(	Topic )									
	B-(	Topic )									
	-	entistry-B / Dental erials-A	Pat	hology		Dental Materials	Comm	unity Dentistry		Path	ology
Tuesday	Pra	actical		LGIS		LGIS		LGIS		Tutorial/SGD	
	B-( '	Topic )									
	A-(	Topic )									
	Pre clinical operative integrated with DM		cs A Pharr	macology	Break	Pathology	Comm	unity Dentistry	Break	Communi	ty dentistry
Wednesday	Sk	ill lab		LGIS		LGIS		LGIS		SGD/1	「utorial
		А									
		В									
	Denta	l material	Pharr	nacology		DM/Mentoring session	on Pat	hology		PathologyA/F	harmacologyB
	Tuto	rial/SGD	ı	LGIS				LGIS		Practio	cal/SGD
Thursday										А	
										В	
	Jr Operative-A/ J	r Prosthodontics-E	3 Integrated DM	Pre operative		Pre prosthetics	Behav	ioural sciences		PathologyB/P	harmacology A
Friday		Skill Lab		LGIS		LGIS		LGIS		Practio	al /SGD
•	B-( Topic )									A	
	A-( Topic )							1			В
	r Shahreen Zahid Kha		Dr Shazana		Amir	Dr. Sharaz	Dr. Sadia		Dr Rai Tariq		or Irfan Shah
Coordinator 2 <sup>r</sup>	Coordinator 2 <sup>nd</sup> Year BDS & HoD Dental Materials Ho		HoD Pharmacolo	ogy HoD Pros	thodontics	Pre-clinical Operative	HoD Pathology	Vice Principal 8	& HoD Communit	y Dent	Principal

#### ASSESSMENT

### Types and Schedules



Assessment is continuous via class tests, quizzes, and assignments by the department. Continuous assessment is separate from the block exam at the end of 13 weeks of instruction. The purpose of continuous assessment is formative and summative.

Formative assessment tests may be surprise tests/written assignments/self–reflection and presentations and feedback to the students during the teaching time. The purpose of formative assessment is to provide feedback to the students for improvement and for teachers to identify areas where students need further guidance.

From the 2<sup>nd</sup> week onwards, the class tests of Community Dentistry, Pharmacology, Dental Materials, Preclinical subjects, and General Pathology will be held on a rotation basis, respectively. Finally, the 13<sup>th</sup> week will be dedicated to end-of-block (EOB) exams. Above mentioned assessment tools will form part of continuous summative assessment and, along with pre-annual exams, will contribute to marks in internal assessment to be submitted to the university.

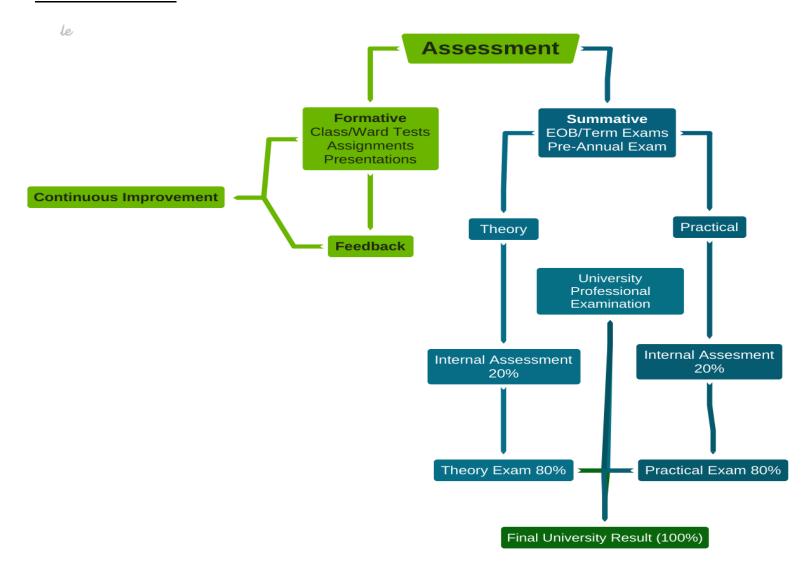
Students must secure 50% marks in exams, as per university criteria.

The students who fail in the end of the block exam will be allowed to attend the next block; however, their internal assessment will be affected accordingly.

<u>Internal assessment criteria for submission of internal assessment marks of Second Professional Examination NUMS:</u>

- 1. The weightage of internal assessment shall be 20 marks for a 100 marks paper (20%) in the annual examination.
- 2. Class tests, end-of-block examinations, and pre-annual examination shall contribute to internal assessment.

### 5. ASSESSMENT MAP



# BLOCK - II

# **MANAGEMENT OF CARIOLOGY AND MEDICAL PATHOLOGIES II**

# 1. STRUCTURED SUMMARY - BLOCK II

Block Code	Y2-B2-D24		
Block Title	Management of Cariology & Medical Pathologies II		
Duration Of Block	12 weeks(11+1)		
Important Dates	8 <sup>th</sup> May 2024 to 23 <sup>rd</sup> August 2024		
Horizontally Integrated Themes	General Pathologies and Management II  Community Diseases and Prevention II  Cariology and Management II		
Vertically Integrated Themes	Preclinical Operative Dentistry Preclinical Prosthodontics Research Methodology Communication Skills		
Prerequisite Blocks	All 1 <sup>st</sup> Year Blocks and 2 <sup>nd</sup> Year Block 1		

# 2. TENTATIVE CLASS TESTS SCHEDULE $^{1}$

DATE	SUBJECT	DAY
20-5-24	Community Dentistry	Monday
23-5-24	Dental Materials	Thursday
27-5-24	Pharmacology	Monday
30-5-24	General Pathology	Thursday
3-6-24	Preclinical Operative dentistry and prosthodontics	Monday

DATE	SUBJECT	DAY
10-6-24	Community Dentistry	Thursday
13-6-24	Dental Materials	Monday
22-7-24	Pharmacology	Thursday
25-7-24	General Pathology	Monday
29-7-24	Preclinical Operative dentistry and prosthodontics	Thursday

 $<sup>^{\</sup>rm 1}$  This is a tentative schedule. Therefore, it is subject to change.

# 3. END OF BLOCK 2 (EOB) EXAM TENTATIVE SCHEDULE $^2$

Dates	Subject
16 August 2024	Dental Materials
19 August 2024	Pharmacology
20 August 2024	Pre clinicals
21 August 2024	Community Dentistry
23 August 2024	General Pathology

<sup>&</sup>lt;sup>2</sup> This is a tentative schedule. Therefore, it is subject to change.

### • LEARNING OUTCOMES FOR BLOCK II

### 1. <u>DENTAL MATERIALS</u>

S. No	Topics/ Theme	Learning Outcomes	Learning Objectives	IC Code	MIT	Assessment Tools
1	Pit and fissure Sealants, Dentifrices and Fluoride agents	At the end of the block, the students will be able to:  Review preventive materials in detail	At the end of the block, the students will be able to:  Knowledge  Describe types and composition of pits and fissure sealants Describe their clinical applications Describe the types, composition and purpose of dentifrices and mouthwashes Describe different types of fluoride agents, their mode of action and application	IC 2 IC 4	LGIS	MCQs SAQs Viva
			Illustrate the manipulation and clinical application of pit and fissure sealants     Identify the pits and fissure sealants, fluoride agents, dentifrices	IC 4 IC 5	Practical Demonstration	OSPE
2	Impression Materials	<ul> <li>Identify ideal properties of impression materials</li> <li>Classify impression materials based on</li> </ul>	<ul> <li>Knowledge</li> <li>Describe the significance of impression and impression materials in dentistry</li> </ul>	IC 2	LGIS	MCQs SAQs Viva

		<ul> <li>Mechanical Properties</li> <li>Viscosity</li> <li>Elastic properties and non-elastic behaviour</li> <li>Setting Reaction</li> <li>Identify the composition of various impression materials</li> <li>Demonstrate sound knowledge of each impression material and their properties</li> <li>Manipulate the variables of Impression materials</li> <li>Classify Non-elastic Impression Materials</li> <li>Impression Compound</li> <li>Impression Plaster</li> <li>Zinc-Oxide Eugenol Paste</li> <li>Impression Waxes</li> <li>Classify Elastic Impression Materials</li> <li>Reversible &amp;</li> </ul>	<ul> <li>Discuss general requirements for an ideal impression material</li> <li>Describe the properties and clinical application of different types of impression materials and compare them</li> <li>Skill</li> <li>Demonstrate proper techniques used for mixing, handling and perform manipulation of impression material (Zinc Oxide Eugenol)</li> <li>Demonstrate proper techniques used for mixing, handling and perform manipulation of impression materials (Alginate)</li> </ul>	IC 1 IC 4 IC 5	Practical Demonstration	OSPE
		Irreversible Hydrocolloids Non-aqueous Elastomers				
3	Gypsum Products for Dental Casts	Classify Gypsum products	Knowledge	IC 2	LGIS	MCQs SEQs Viva

		Explain composition, setting characteristics and uses of gypsum Products	<ul> <li>Describe the properties, types, uses and manipulation of gypsum products</li> <li>Describe the method of manufacturing and properties of gypsum products used in dentistry</li> <li>Describe the setting reactions of different types of dental gypsum products</li> <li>Describe the manipulation factors that affect the setting time and physical and mechanical properties of gypsum products</li> <li>Describe the methods used for the disinfection of dental gypsum models and study casts</li> <li>Demonstrate the proper mixing technique of dental gypsum used for preparing study models and casts</li> </ul>			
			<ul> <li>Skill</li> <li>Demonstrate the manipulation of Gypsum</li> <li>Perform the fabrication of plaster slab</li> </ul>	IC 4 IC 5	Practical Demonstration	OSPE
4	Waxes	<ul> <li>Describe classification, properties, and uses of Dental Waxes</li> </ul>	<ul><li>Knowledge</li><li>Classify waxes used in dentistry</li></ul>	IC 2	LGIS	MCQs SEQs Viva

		Explain applications of waxes in dentistry	<ul> <li>Describe composition, properties of different types of dental waxes</li> <li>Describe applications of different types of dental waxes</li> </ul>	16.4	Practical	OCDE
			<ul> <li>Skill</li> <li>Fabricate wax pattern for acrylic partial dentures</li> <li>Identify the types of waxes available in dental laboratory</li> </ul>	IC 4 IC 5	Demonstration	OSPE
			<ul> <li>Attitude</li> <li>Discuss Lab safety protocol</li> <li>Discuss possible laboratory hazards linked to burners</li> </ul>	IC 1	Practical Demonstration	OSPE
5	Denture Base Acrylic resins	<ul> <li>Describe physical, chemical, and mechanical properties of denture base polymers</li> <li>Classify of acrylic denture base materials</li> <li>Describe the composition of acrylic denture base materials</li> <li>Describe the processing of Heat and Chemically activated resins</li> <li>Compare compression moulding technique and injection moulding</li> </ul>	<ul> <li>Knowledge</li> <li>Describe the definition of denture base material</li> <li>Describe the ideal properties and types of denture base materials</li> <li>Describe the chemical composition of denture base materials</li> <li>Describe the properties of denture base materials</li> <li>Describe the procedures involved in fabrication of denture base materials</li> <li>Discuss clinical application, manipulation, processing, and care of dentures for</li> </ul>	IC 2 IC 4	LGIS	MCQs SEQs Viva

		technique for complete denture processing  Compare heat activated and chemically activated acrylic resins  Describe the defects during denture processing  Enlist repair materials for	laboratory processed prosthetic resins  Describe biocompatibility issues associated with denture base materials  Describe various methods of polymerization of denture base materials			0505
		dentures	<ul> <li>Skill</li> <li>Manipulate acrylic         (polymer and liquid) and         identify the physical         changes taking place         during the mixing and         setting of polymers</li> <li>Demonstrate the mixing of         heat cure acrylic resin</li> <li>Demonstrate the steps of         acrylic denture fabrication</li> <li>Compare heat and self-         cure acrylic resin</li> </ul>	IC 4	Practical Demonstration	OSPE
6	Denture Relining and Rebasing Materials, Tissue Conditioners, Separating Media	<ul> <li>Classify the relining, tissue conditioners and rebasing materials</li> <li>Describe the composition, properties and manipulative characteristics of relining and rebasing materials</li> </ul>	<ul> <li>Knowledge</li> <li>Describe the relining and rebasing procedures for dentures</li> <li>Describe the various types of relining and rebasing dental materials</li> <li>Describe the manipulation and properties of relining and rebasing materials</li> <li>Describe the biocompatibility issues associated with</li> </ul>	IC 2	LGIS	MCQs SEQs Viva

materials  Describe the definition of tissue conditioners  Describe various types of tissue conditioners used in dentistry  Describe and discuss the properties of various tissue conditioners used in dentistry  Describe the steps of clinical manipulation of tissue conditioners  Describe the rationale behind the use of separating media in dentistry  Discuss the various types of separating media in dentistry including their composition, mechanism of action and properties  Demonstrate the techniques for application of separating media	
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conditioners used in dentistry  Describe the steps of clinical manipulation of tissue conditioners  Describe the rationale behind the use of separating media in dentistry  Discuss the various types of separating media used in dentistry including their composition, mechanism of action and properties  Demonstrate the techniques for application of separating media	properties of various tissue
<ul> <li>Describe the steps of clinical manipulation of tissue conditioners</li> <li>Describe the rationale behind the use of separating media in dentistry</li> <li>Discuss the various types of separating media used in dentistry including their composition, mechanism of action and properties</li> <li>Demonstrate the techniques for application of separating media</li> </ul>	
manipulation of tissue conditioners  Describe the rationale behind the use of separating media in dentistry  Discuss the various types of separating media used in dentistry including their composition, mechanism of action and properties  Demonstrate the techniques for application of separating media	dentistry
conditioners  Describe the rationale behind the use of separating media in dentistry  Discuss the various types of separating media used in dentistry including their composition, mechanism of action and properties  Demonstrate the techniques for application of separating media	Describe the steps of clinical
<ul> <li>Describe the rationale behind the use of separating media in dentistry</li> <li>Discuss the various types of separating media used in dentistry including their composition, mechanism of action and properties</li> <li>Demonstrate the techniques for application of separating media</li> </ul>	manipulation of tissue
the use of separating media in dentistry  Discuss the various types of separating media used in dentistry including their composition, mechanism of action and properties  Demonstrate the techniques for application of separating media	conditioners
in dentistry  Discuss the various types of separating media used in dentistry including their composition, mechanism of action and properties  Demonstrate the techniques for application of separating media	Describe the rationale behind
<ul> <li>Discuss the various types of separating media used in dentistry including their composition, mechanism of action and properties</li> <li>Demonstrate the techniques for application of separating media</li> </ul>	the use of separating media
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dentistry including their composition, mechanism of action and properties  • Demonstrate the techniques for application of separating media	
composition, mechanism of action and properties  • Demonstrate the techniques for application of separating media	
action and properties  Demonstrate the techniques for application of separating media	
Demonstrate the techniques     for application of separating     media	
for application of separating media	
media	
Discuss the verticual behind	
the use of separating media in dentistry	
Describe the various types of	
separating media used in	
dentistry including their	
composition, mechanism of	
action and properties	

			<ul> <li>Demonstrate the techniques for application of separating media</li> <li>Skill</li> <li>Perform manipulation of acrylic (polymer and liquid) and identify the stages involved</li> <li>Demonstrate the steps involved in manipulation of separating media</li> </ul>	IC 2 IC 4 IC 5	Practical Demonstration	OSPE
7 Met	tals and Alloys	<ul> <li>Outline structure and properties of metals and alloys</li> <li>Differentiate between cooling curves of metals alloys</li> <li>Describe the importance of grain boundary and Grain Refining</li> <li>Identify traditional gold alloys</li> <li>Recall the properties of gold alloys used in dentistry</li> <li>Enlist gold alloys employed in various prosthesis</li> <li>Describe the composition of Co/Cr and Ni/Cr</li> <li>Summarize the properties of base metal alloys</li> <li>Compare base metal alloys with casting gold alloys</li> <li>Discuss the biocompatibility of base metal alloys</li> </ul>	<ul> <li>Recall the basic concept related to processing and solidification of dental alloys</li> <li>Recall the different types of metals and alloys used in fabrication of dental prosthesis</li> <li>Discuss the types of metals and clinical applications of high noble and noble metal alloys</li> <li>Describe the types, processing, and clinical applications of base metal alloys</li> <li>Describe the types, processing, and clinical applications of wrought metal alloys</li> <li>Describe the types, processing, and clinical applications of wrought metal alloys</li> <li>Describe the types, processing, and clinical</li> </ul>	IC 2 IC 4	LGIS	MCQs SEQs Viva

		Discuss the role of base metal casting alloys in dentistry	<ul> <li>applications of stainless steel in dentistry</li> <li>Describe the types, processing and clinical applications of titanium and its alloys in dentistry</li> <li>Describe the properties and composition of various orthodontic wires</li> <li>Describe the casting procedures for metal alloys</li> <li>Skill</li> <li>Draw the alloy-phase diagrams</li> <li>Identify metals (clasps and connectors)</li> <li>Identify the differences</li> </ul>	IC 2 IC 4	Practical Demonstration	OSPE
8	Soldering & Welding	<ul> <li>Summarize the microstructure, composition, properties, and clinical applications of wrought alloys</li> <li>Describe the following in detail         <ul> <li>Heat treatments</li> <li>Cold Working</li> <li>Soldering and brazing</li> <li>Stress relief annealing</li> <li>Shaping of metals and alloys</li> </ul> </li> </ul>	<ul> <li>knowledge</li> <li>Describe the objectives and uses of soldering and welding in dentistry</li> <li>Describe the differences between soldering, brazing, and welding</li> <li>Identify the components of dental solders and welders</li> <li>Describe the different heat sources for soldering and welding</li> <li>Describe welding and its types</li> </ul>	IC 2	LGIS	MCQs SEQs Viva

Refractor	<ul> <li>Describe the different types of investment materials</li> <li>Discuss the requirements of investment materials</li> <li>Describe the following aspects of all types of investment materials:         <ul> <li>Composition and properties</li> <li>Refractory material and its properties</li> <li>Setting reaction and reactions during casting</li> <li>Ways to compensate for setting contraction</li> </ul> </li> </ul>	<ul> <li>Enowledge         <ul> <li>Describe investment materials used in dentistry</li> <li>Different types of investment materials used in dentistry</li> <li>Describe the composition, setting reaction and properties of gypsum bonded investment</li> <li>Describe the composition, setting reaction and properties of silica bonded investment and Phosphate bonded investments</li> <li>Describe the properties and clinical applications of different types of investments</li> <li>Describe the steps and methods involved in casting procedures</li> <li>Summarize the ways to compensate for shrinkage during casting process</li> <li>Discuss the defects which may occur during casting</li> </ul> </li> <li>Skill         <ul> <li>Identify casting defects</li> </ul> </li> </ul>	IC 2	Practical Demonstration	MCQs SEQs Viva
10 Ceramics	<ul><li>Classify dental ceramics</li><li>Compare Dental Porcelain based on</li></ul>	Knowledge	IC 1 IC 2 IC 4	LGIS	MCQs SEQs Viva

		<ul> <li>Composition</li> <li>Processing of Porcelain Fused to metal prosthesis</li> <li>Interpret All-Ceramic Prosthesis</li> <li>Sintering</li> <li>Casting and Slip Casting</li> <li>Hot Pressing</li> <li>CAD/CAM</li> <li>Properties of Dental Ceramics</li> <li>Toughening mechanism of Dental Ceramics</li> </ul>	<ul> <li>Describe the basic chemistry and composition of ceramics and their classification</li> <li>Discuss the general procedures involved in fabrication of dental ceramics</li> <li>Discuss the procedures of ceramic bonding</li> <li>Describe the methods of strengthening ceramics.</li> <li>Skill</li> <li>Identify different materials used in ceramic Laboratory</li> <li>Identify the steps in construction of a PFM crown in a ceramic workshop</li> <li>Perform the procedure of ceramic bonding</li> </ul>	IC 1 IC 4 IC 5	Practical Demonstration	OSPE
11	PFM Casting and Cementing Crowns	<ul> <li>Enumerate the steps of investment and basic casting</li> <li>Describe the factors which effect the final cast</li> </ul>	<ul> <li>Knowledge</li> <li>Identify the procedure of casting</li> <li>Identify the defects which may occur</li> </ul>	IC 2 IC 4 IC 6	LGIS	MCQs SEQs Viva
		<ul> <li>Explain compensation for Shrinkage during casting process</li> <li>Interpret the defects of casting</li> </ul>	Skill  Identify the steps of fabrication of porcelain fused to metal crown	IC 2 IC 4 IC 5	Practical Demonstration	OSPE

# 2. COMMUNITY DENTISTRY

S.	Content/	Learning Outcomes	Learning Objectives	IC	MITs	Assessment
No	Topic			Code		Tools
1	Prevention	At the end of this block students will be able to: Demonstrate knowledge of different levels of prevention	At the end of this block students will be able to:  Knowledge  Define prevention Identify levels of prevention Identify Plaque control methods Describe Mechanical and chemical plaque control	IC 2	LGIS SGD	MCQs SEQs Viva
2	Screening	Outline basic concepts of screening	<ul> <li>Knowledge</li> <li>Define Screening</li> <li>Identify aims and objectives</li> <li>Enlist basic screening test</li> <li>Describe types of screening</li> <li>Discuss the criteria used for screening</li> </ul>	IC 2 IC 6	LGIS SGD	MCQs SEQs Viva
3	Prevention of Dental Caries Plaque Disclosing Agents	Demonstrate knowledge of prevention of oral diseases Demonstrate the knowledge and skill related to plaque disclosing agents	<ul> <li>Knowledge</li> <li>Define caries</li> <li>Define plaque and its contents</li> <li>Define plaque disclosing agents</li> <li>Describe purpose &amp; Types of disclosing agents</li> <li>Describe the methods of plaque disclosing agents' application</li> </ul>	IC 2	LGIS SGD	MCQs SEQs Viva
			Skill  Demonstrate the application of plaque disclosing agents	IC 2	Virtual Audio/ Video demonstration	OSPE

4	Pit and Fissure Sealants	Demonstrate knowledge and skill related to pits and fissure sealants	<ul> <li>Knowledge</li> <li>Define pits and fissure sealants</li> <li>Enlist advantages of pits and fissure sealants</li> <li>Describe Indication and contraindications</li> <li>Skill</li> <li>Demonstrate the application of pit and fissure sealants</li> </ul>	IC 2 IC 6	LGIS SGD Virtual Audio/ Video demonstration	MCQs SEQs Viva
5	Caries Activity Test	Demonstrate knowledge and skill related to caries activity test	<ul> <li>Knowledge</li> <li>Describe caries activity test</li> <li>Outline indications, advantages of caries test</li> <li>Describe types of caries test &amp; procedure to carry out test</li> </ul>	IC 2	LGIS SGD	MCQs SEQs Viva
6	Atraumatic Restorative Dentistry	Enumerate the knowledge of ART	<ul> <li>Knowledge</li> <li>Define ART</li> <li>Describe history &amp; rationale of ART</li> <li>Outline principles of using ART, indications, and contraindications</li> <li>Enlist instruments, essential material &amp; working requirements</li> <li>Describe survival/success rate</li> </ul>	IC 2	LGIS SGD	MCQs SEQs Viva
			<ul> <li>Skill</li> <li>Identify the instruments of ART</li> <li>Perform the procedure of ART</li> </ul>	IC 2	Audio/ Video Demonstration	OSPE

7	Prevention of Periodontal Disease	Demonstrate knowledge of prevention of oral diseases	<ul> <li>Knowledge</li> <li>Define different levels of prevention</li> <li>Discuss prevention of periodontal disease at different levels</li> </ul>	IC1 IC 2	LGIS SGD	MCQs SEQs Viva
8	Tooth Brushing Techniques	Demonstrate the knowledge and Skill related to tooth brushing techniques	<ul> <li>Skill</li> <li>Demonstrate the tooth brushing techniques on models:</li> <li>Bass technique</li> <li>Stillman's technique</li> <li>Charter technique</li> </ul>	IC 1	Demonstration	OSPE
9	Prevention of Oral Cancer	Demonstrate knowledge of prevention of oral diseases	<ul> <li>Knowledge</li> <li>Define different levels of prevention</li> <li>Discuss prevention of oral cancer at different levels</li> </ul>	IC 2	LGIS SGD	MCQs SEQs Viva
10	Prevention of Wasting Disease of Teeth	Demonstrate knowledge of prevention of oral diseases	<ul> <li>Knowledge</li> <li>● Describe how to prevent wasting diseases of teeth at different levels</li> </ul>	IC 2	LGIS SGD	MCQs SEQs Viva
11	Flossing Techniques	Demonstrate knowledge and skill related to flossing technique	Skill  Demonstrate different techniques of flossing	IC 2	Virtual Audio/ Video demonstration	OSPE

12	Fluorides in Dentistry	Outline the role of fluorides in dentistry	<ul> <li>Knowledge</li> <li>Outline the historical background of fluoride in relation to dentistry</li> <li>Describe the metabolism of fluoride</li> <li>Describe the mechanism of actions of fluoride</li> <li>Discuss the methods of introducing fluoride to prevent dental caries</li> <li>Describe modes of administration of fluorides</li> </ul>	IC 2 IC 6	LGIS SGD	MCQs SEQs Viva
13	Systemic and Topical Fluorides	Outline the role of fluorides in dentistry	<ul> <li>Knowledge</li> <li>Differentiate the methods of systemic delivery with their advantages and disadvantages</li> <li>Define required amount of fluoride</li> <li>Describe reasons for fluoride rejection</li> <li>Define topical fluorides</li> <li>List indications for topical fluoride use</li> <li>Describe different topical fluoride vehicles</li> </ul>	IC 2 IC 6	LGIS SGD	MCQs SEQs Viva
14	Fluoride Toxicity	Demonstrate the knowledge and skill related to fluoride toxicity	<ul> <li>Knowledge</li> <li>Define de-fluoridation</li> <li>Describe the different methods of de fluoridation, advantages, and disadvantages of each method</li> <li>Define the term fluoride toxicity</li> <li>Describe the types of fluoride toxicity</li> <li>Define lethal dose of fluoride</li> </ul>	IC 2	LGIS SGD	MCQs SEQs Viva

			Describe management of fluoride toxicity			
15	Topical Fluorides	Demonstrate the knowledge and skill related to topical fluorides	Demonstrate the method of application of fluorides	IC 2	Virtual Audio/ Video Demonstration	OSPE
16	Occupational Hazards in Dentistry	Outline the knowledge of occupational hazards in dentistry	<ul> <li>Knowledge</li> <li>Define occupational hazards</li> <li>Classify different hazards</li> <li>Identify hazards related to profession of dentistry</li> <li>Describe the methods of prevention of occupational hazards</li> </ul>	IC 2 IC 6	LGIS SGD	MCQs SEQs Viva
17	Nutrition and Health	Demonstrate the knowledge related to health and nutrition	<ul> <li>Knowledge</li> <li>Define diet &amp; nutrition</li> <li>Enlist basic nutrients</li> <li>Describe daily requirement of different nutrients</li> <li>Identify deficiencies associated with different nutrients</li> <li>Identify major nutritional problems in public health</li> <li>Define balanced diet</li> <li>Describe food pyramid and daily portion requirement</li> </ul>	IC 2 IC 6	LGIS SGD	MCQs SEQs Viva
18	Oral Hygiene Instructions	Demonstrate the knowledge and skill related to oral hygiene instructions	<ul> <li>Attitude</li> <li>Counsel a high-risk patient for caries prevention</li> <li>Counsel a high-risk patient for periodontal disease prevention</li> </ul>	IC 4 IC 6	Virtual Audio/ Video Demonstration	OSPE

			Guide expecting mothers     regarding their oral hygiene			
19	Environment and Health	Explain the concepts related to environmental health	<ul> <li>Knowledge</li> <li>Define environmental health</li> <li>Describe sources, purification and hardness of water</li> <li>Identify health aspects of solid waste, sources of solid waste, Different methods of waste disposal</li> <li>Define air pollution, sources</li> <li>Describe effects of air and noise pollution</li> <li>Describe prevention of air and noise pollution</li> </ul>	IC 2	LGIS SGD	MCQs SEQs Viva
20	Infection Control and Sterilization	Discuss the basic concepts of sterilization	<ul> <li>Knowledge</li> <li>Define infection</li> <li>Define sterilization &amp; methods of sterilization</li> <li>Describe sterilization of dental instruments</li> <li>Describe how to control infection in dentistry</li> </ul>	IC 2	LGIS SGD	MCQs SEQs Viva
21	Ergonomics	Demonstrate the knowledge and skill related to Ergonomics	<ul> <li>Knowledge</li> <li>Define ergonomics and it effects</li> <li>Describe the psychosocial factors and work-related musculoskeletal disorders in dentistry</li> </ul>	IC 2	LGIS	MCQs SEQs Viva

	<u>Skill</u>	IC 1	Practical	OSPE
	<ul> <li>Practice strategies to prevent musculoskeletal disorders</li> </ul>	IC 4	Demonstration	

## 3. PHARMACOLOGY

S.	Topic/ Theme	Learning	Learning Objectives	IC	MIT	Assessment
No.		Outcomes		Codes		Tools
1	Chemotherapy Introduction	Discuss the basics of chemotherapy	<ul> <li>Knowledge</li> <li>Define chemotherapy</li> <li>Differentiate between antibiotics and antimicrobials</li> <li>Contrast bactericidal and bacteriostatic agents</li> <li>Discriminate between narrow and broad-spectrum antimicrobial agents</li> <li>Illustrate the classification of antimicrobial agents</li> <li>Outline the principles of antimicrobial therapy</li> </ul>	IC 2	LGIS	SAQ MCQ Viva
2	Chemotherapy Resistance	Discuss drug resistance and its outcomes	<ul> <li>Knowledge</li> <li>Define drug resistance</li> <li>Enumerate types of resistance</li> <li>Describe different mechanism underlying development of drug resistance</li> <li>Discuss the consequences of drug resistance</li> <li>Outline methods to prevent antimicrobial resistance</li> </ul>	IC 2	LGIS	SAQs MCQs Viva
3	Sulphonamides and Trimethoprim	Discuss basic pharmacology of sulphonamides & trimethoprim	<ul> <li>Knowledge</li> <li>Outline the steps of folic acid synthesis</li> <li>Classify sulphonamides</li> <li>Describe clinically useful application of bacterial folic acid antagonist</li> <li>Describe the major adverse effects of sulphonamides and trimethoprim</li> </ul>	IC 2 IC 6	LGIS	MCQs SAQs Viva

			<ul> <li>Enumerate combinations of sulphonamides with other antimicrobial drugs</li> <li>Recall the combination of sulfamethoxazole and trimethoprim</li> <li>Identify the ratio of both drugs in the combined form</li> <li>List the advantages obtained by combination of drugs</li> </ul>			
4	Penicillin I, II	Discuss basic pharmacology of penicillin	<ul> <li>Recall the structure of bacterial cell wall</li> <li>Describe the differences between cell wall of gram positive and gramnegative microorganisms</li> <li>State the similarities and differences in the chemical structure between the penicillin and cephalosporin</li> <li>Classify penicillin</li> <li>Discuss the differences in the spectrum of activity between the natural penicillin's, the penicillinase-resistant penicillin's, the aminopenicillins, the carboxypenicillins, the ureidopenicillins, and the β-lactamase inhibitor combinations</li> <li>Describe the mechanism of action and resistance of penicillin</li> <li>Describe the pK features of penicillin with emphasis on distribution to CSF, urinary tract, lungs, soft tissue, and bone</li> <li>Discuss the clinical uses and adverse effects of penicillin</li> </ul>	IC 2	LGIS	MCQs SAQs Viva

6	Cephalosporin	Discuss basic pharmacology of	<ul> <li>Discuss the concept of hypersensitivity to penicillin and ways to prevent and treat it</li> <li>Knowledge</li> <li>Recall the similarities and differences in</li> </ul>	IC 2	LGIS	MCQs SAQs
		cephalosporins & their role dentistry	<ul> <li>the chemical structure between the penicillin and cephalosporin</li> <li>Classify cephalosporin</li> <li>Describe the mechanism of action and resistance of cephalosporin</li> <li>Describe the PK characteristics of different generations of cephalosporin</li> <li>Discuss the clinical uses and adverse effects of cephalosporins</li> </ul>			Viva
7	Tetracycline	Discuss basic pharmacology of tetracycline & their role in dentistry	<ul> <li>Knowledge</li> <li>Classify tetracycline</li> <li>Discuss salient pharmacokinetic characteristics of different members of tetracycline</li> <li>Describe spectrum, mechanism of action and resistance of this drug group</li> <li>Illustrate the clinical uses and adverse effects of tetracycline</li> <li>Discuss the use of tetracycline in children and pregnant women</li> </ul>	IC 2 IC 6	LGIS	MCQs SAQs Viva
8	Macrolides	Discuss basic pharmacology of Macrolides	<ul> <li>Knowledge</li> <li>Classify macrolides</li> <li>Discuss the salient pharmacokinetic characteristics of different macrolides</li> <li>Describe the spectrum, mechanism of action and resistance of macrolides</li> <li>Discuss the clinical uses and adverse effects of macrolides</li> </ul>	IC 2	LGIS	MCQS SAQS Viva

			Tabulate the differences of erythromycin, clarithromycin and azithromycin			
9	Chloramphenicol	Discuss basic pharmacology of chloramphenicol	<ul> <li>Knowledge</li> <li>Discuss the spectrum of activity</li> <li>Discuss the mechanism of action of chloramphenicol</li> <li>Outline the clinical applications</li> <li>Identify the main adverse effects of chloramphenicol</li> </ul>	IC 2 IC 6	LGIS	MCQs SAQs Viva
10	Aminoglycosides (AMG)	Discuss basic pharmacology of aminoglycosides	<ul> <li>Knowledge</li> <li>Recall the different aminoglycosides</li> <li>Discuss the structural difference between different members</li> <li>Discuss the main pK characteristics of aminoglycosides (AMG)</li> <li>Discuss the advantages of multiple dosing of aminoglycosides over once daily dosing</li> <li>Describe the mechanism of action and resistance of aminoglycosides (AMG) and trace the spectrum of activity</li> <li>Describe the interaction between cell wall inhibitors and aminoglycosides</li> <li>Discuss its therapeutic indications and adverse effects</li> </ul>	IC 2	LGIS	MCQs SAQs
11	Quinolones	Discuss basic pharmacology of quinolones	<ul> <li>Knowledge</li> <li>Classify quinolones</li> <li>Differentiate between quinolones and fluoroquinolones</li> <li>Recall the pK consideration of quinolones</li> </ul>	IC 2	LGIS	MCQs SAQs Viva

12	Anti- mycobacterial I, II	Discuss first line and second line anti-mycobacterial drugs	<ul> <li>Describe the mechanism of action, therapeutic uses and adverse effects of quinolones</li> <li>Enumerate the contraindications of quinolones</li> <li>Enumerate different species of mycobacterium and disease associated with them</li> <li>List 1<sup>st</sup> and 2<sup>nd</sup> line Anti-tuberculosis treatments</li> <li>Describe the mechanism of action, resistance and clinical uses of 1<sup>st</sup> line ATT</li> <li>Discuss the toxicities of 1<sup>st</sup> line ATT and its prevention</li> <li>Describe the rationale for multi drug regimens</li> <li>Enlist anti-mycobacterial drugs used for leprosy</li> </ul>	IC 2 IC 6	LGIS	MCQs SAQs Viva
13	Anti-fungal drug I, II	Discuss drug treatment of fungal diseases	<ul> <li>Knowledge</li> <li>Recall the structure of fungal cell wall</li> <li>Classify antifungal agents</li> <li>Describe the spectrum, Mechanism of action, indications, and adverse effects of different classes of antifungal drugs</li> </ul>	IC 2 IC 6	LGIS	MCQs SAQs Viva
14	Anti-malaria drugs I, II	Discuss drug treatment and prophylaxis of malaria	<ul> <li>Knowledge</li> <li>Enumerate different species of plasmodium</li> <li>Outline the life cycle of plasmodium</li> <li>Identify the various phases of life cycle of plasmodium which act as targets of antimalarial drugs</li> </ul>	IC 2 IC 6	LGIS	MCQs SAQs Viva

			<ul> <li>Describe the mechanism of action, therapeutic uses, and adverse effects of prototype drugs for malaria</li> <li>Discuss the use of primaquine in the case of plasmodium vivax and ovale</li> <li>Enumerate the commonly use combination of anti-malarial drugs</li> </ul>			
15	Anti-amoebic drugs	Discuss drug treatment of amoebiasis	<ul> <li>Knowledge</li> <li>Outline the life cycle of entamoeba histolytica</li> <li>Discuss the underlying pathogenesis of amoebiasis</li> <li>Classify the drugs effective against amoebiasis</li> <li>Describe the spectrum of activity, mechanism of action, clinical uses, and adverse effects of metronidazole</li> <li>Discuss the salient pharmacokinetics and pharmacodynamics features of prototype drug of each class</li> <li>Rationalise the use of combining a luminal agent with systemic amoebicides</li> </ul>	IC 2 IC 6	LGIS	MCQs SAQs Viva
16	Anti-viral drugs I,	Describe different Anti-viral drugs and their role in dentistry	<ul> <li>Knowledge</li> <li>Identify the viruses targeted by major group of antiviral drugs</li> <li>Enumerate drug groups effective against Hep B &amp; C and HIV</li> <li>Describe the mode of action, clinical uses and toxicity profile of interferons and ribavirin</li> </ul>	IC 2	LGIS	MCQs SAQs Viva

17	Anti-neoplastic drugs	Describe different anti-cancer drugs in different tumours	<ul> <li>Knowledge</li> <li>Illustrate the cycle of cell division and growth</li> <li>Define cancer and enumerate its various types classify anti-neoplastic agents</li> <li>Describe a generalized mechanism and adverse effects of anti-neoplastic drugs</li> <li>Identify specific clinical indications and toxicities of important anti-neoplastic agents</li> </ul>	IC 2	LGIS	MCQs SAQs Viva
18	Antidiabetic drugs I, II	Discuss basic drug treatment of type 1 and type 2 diabetes mellitus	<ul> <li>Recall the synthesis and physiological effects of insulin in body</li> <li>Comprehend the fundamental differences between type 1 and 2 diabetes</li> <li>Classify insulin on basis of source and onset of action</li> <li>Recall the structure and distribution of insulin receptors in body along with signal transduction mechanism associated with it</li> <li>Identify the sites for administration of insulin</li> <li>Describe the adverse effects and complications of insulin therapy</li> <li>Classify non-insulin anti-diabetic agents and identify insulin secretagogues and euglycemic drugs</li> <li>Describe the mode of action of various classes of non-insulin antidiabetic drugs</li> </ul>	IC 2	LGIS	MCQs SAQs Viva

19	Anti-thyroid drugs, I, II	Discuss basic pharmacology of Anti-thyroid drugs	<ul> <li>Discuss clinical benefits, untoward effects and drug interactions of non-insulin antidiabetic medicines</li> <li>Knowledge</li> <li>Recall the biosynthesis and feedback regulation of release and role of thyroid hormone in body</li> <li>Classify anti-thyroid drugs</li> <li>Identify the steps of thyroid hormone synthesis which are blocked by different classes of anti-thyroid drugs</li> <li>Differentiate between methimazole and propylthiouracil</li> <li>Discuss the adverse effects produced by various anti-thyroid drugs</li> </ul>	IC 2	LGIS	MCQs SAQs Viva
20	Corticosteroids, I,	Basic pharmacology of Corticosteroids	<ul> <li>Knowledge</li> <li>Recall the source, synthesis, regulation of release and role of steroid in body</li> <li>Classify corticosteroids</li> <li>Outline the mechanism of action of corticosteroids via nuclear receptors</li> <li>Describe the therapeutic indications and adverse effects of corticosteroids</li> <li>List the effects produced by dose dependent suppression of hypothalamic pituitary adrenal axis (HPA)</li> <li>Explain the methods to minimize this suppression of HPA</li> </ul>	IC 2	LGIS	MCQs SAQs Viva
21	Hormonal contraceptives	Discuss use of Contraceptives and their adverse effects	<ul> <li>Knowledge</li> <li>Define contraceptives</li> <li>Enumerate hormonal contraceptives</li> <li>Describe the mechanism of action of hormonal contraceptives</li> </ul>	IC 2	LGIS	MCQs SAQs Viva

			<ul> <li>Enlist the non-contraceptive uses of hormonal contraceptives</li> <li>Discuss the adverse effects attributed by constituent hormones of contraceptives</li> </ul>			
22	Antiseptics and disinfectants used in dentistry	Discuss role of different anti-septic agents and disinfectants in dentistry	<ul> <li>Knowledge</li> <li>Define and differentiate between antiseptics and disinfectants</li> <li>Classify antiseptics and disinfectants</li> <li>Outline the antimicrobial activity of different classes of antiseptics and disinfectants</li> <li>Enlist the ideal properties of antiseptics and disinfectants</li> <li>Describe the mechanism of action of different antiseptics and disinfectants</li> </ul>	IC 2	LGIS	SAQs MCQs Viva
23	Prescription writing	Demonstrate prescription writing for multiple diseases	<ul> <li>Knowledge</li> <li>Justify the selection of priority drugs for certain clinical indication and prescribe medicine accordingly</li> </ul>	IC 2	LGIS	MCQ SEQ Viva
			<ul> <li>Skills</li> <li>Demonstrate prescription writing for a given disease</li> </ul>	IC 1 IC 4	Practical Demonstration	OSPE

## 4. GENERAL PATHOLOGY

S.	Topics/Theme	Learning Outcomes	Learning Objectives	IC	MITs	Assessment
No.				Codes		Tools
1	Introduction to hemodynamics  Oedema Congestion Hemorrhage Thrombosis and embolism Infarction Shock	<ul> <li>Discuss the basic knowledge of hemodynamics</li> <li>Describe the process of thrombosis, fate of thrombus, infarction, and detection of types of shock</li> </ul>	<ul> <li>Knowledge</li> <li>Define hemodynamics</li> <li>Describe the basic pathologies in hemodynamics</li> <li>Define edema</li> <li>Describe pathophysiology &amp; morphological findings of edema, thrombosis, infarction</li> <li>Differentiate between hyperemia and congestion</li> <li>Describe the morphological changes and types in congestion</li> </ul>	IC 2	LGIS	MCQs SEQs Viva
			Skill  Demonstrate practical skills related to  Etiology and diagnosis of edema lung (Chronic venous congestion, thrombus, congestion, infraction)	IC 1 IC 4 IC 5	Practical Demonstration	OSPE
2	Introduction to neoplasia	Describe the knowledge of neoplasia, types of	<ul><li>Knowledge</li><li>Define neoplasia</li><li>Classify neoplasia</li></ul>	IC 2	LGIS SGD	MCQs SEQs Viva

<ul> <li>Classification of tumors</li> <li>Benign vs malignant tumors</li> <li>Oncogenes and etiology of tumor</li> <li>Molecular basis of cancer-Oncogenes</li> <li>Biology and mechanism of tumor spread</li> <li>Carcinogenic agents and host defense against tumors</li> </ul>	tumors and their oncogenes  Discuss the molecular basis of oncogenes and mechanism of spread of tumors  Describe the carcinogens, host defense mechanisms  Enlist to Grade and stage the tumors	<ul> <li>Basic terminologies in neoplasia</li> <li>Describe differences between benign and malignant tumors</li> <li>Describe the etiology of tumors</li> <li>Describe the role of oncogenes in tumor formation</li> <li>Enlist cellular &amp; molecular hallmarks of cancer</li> <li>Describe tumor suppressor genes &amp; associated human tumors</li> <li>Describe role and mechanism of spread of tumor</li> </ul>			
Grading and staging of tumors		Demonstrate the knowledge and practical skills related diagnosis of Lipoma, Leiomyoma     Demonstrate the knowledge and practical skills related to diagnosis of squamous cell carcinoma     Identify the gross and microscopic features of basal cell carcinoma	IC 1 IC 4	Practical Demonstration	OSPE

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3	Classification of gram-	•	Recall classification	<u>Kn</u>	<u>owledge</u>	IC 2	LGIS	MCQs
	positive rod/		of gram-positive	•	Describe the pathogenesis		SGD	SEQs
	Spore forming /non-		rods with their		of diseases produced by the			Viva
	spore forming gram		properties,		organisms			
	positive rods		pathogenesis, and	•	Enumerate the toxins and			
	<ul> <li>Mycobacterium I, II,</li> </ul>		lab diagnosis		enzymes produced			
		•	Discuss the types of	•	Describe the lab diagnosis			
	<ul> <li>Actinomycosis</li> </ul>		mycobacteria	•	Discuss the pathogenesis			
	Nocardia	•	Describe the		of pulmonary TB in detail			
	Chlamydia		differences	•	Differentiate the primary			
	<ul> <li>Mycoplasma</li> </ul>		between typical		and secondary TB			
	Rickettsia		and atypical	•	Difference between latent			
	<ul> <li>Spirochetes</li> </ul>		mycobacteria		TB and secondary TB			
	'	•	Recall the	•	Enlist the species of			
			properties, diseases		chlamydia/mycoplasma			
			produced,	•	Discuss the pathogenesis,			
			pathogenesis and		clinical features &			
			lab diagnosis of		laboratory diagnosis of			
			actinomyces,		chlamydia/mycoplasma			
			chlamydia,	Sk	ill	IC 1	Practical	OSPE
			mycoplasma, and	•	Perform sugar test & motility	IC 4	Demonstration	
			rickettsia		test			
				•	Demonstrate different types			
					of sugar tests			
				•	Interpret TSI			

Demonstrate the	<u>Knowledge</u>	IC 2	LGIS	MCQs
characteristic, life cycle,	<ul> <li>Describe pathogenesis,</li> </ul>	IC 4		SEQs
pathogenesis, lab	clinical features, and lab			Viva
diagnosis	diagnosis of parasites			
	<ul> <li>Describe characteristic of</li> </ul>			
	amoeba			
	Describe important			
	properties, pathogenesis, and			
	humans			
	Skill	IC 2	Practical	OSPE
	<ul> <li>Identify the steps of collection of samples for Stool RE</li> <li>Identify gross appearance of stool</li> <li>Interpret microscopic examination of stool</li> <li>Identify cysts and Ova in stool</li> <li>Identify malarial Parasite</li> <li>Identify life cycle of malarial parasite</li> <li>Identify different types of</li> </ul>	IC 4 IC 5	Demonstration	
	characteristic, life cycle, pathogenesis, lab	characteristic, life cycle, pathogenesis, lab diagnosis  Describe pathogenesis, clinical features, and lab diagnosis of parasites  Describe characteristic of amoeba  Describe important properties, pathogenesis, and life cycles of other parasites in humans  Skill  Identify the steps of collection of samples for Stool RE  Identify gross appearance of stool  Interpret microscopic examination of stool  Identify cysts and Ova in stool  Identify life cycle of malarial parasite	characteristic, life cycle, pathogenesis, lab diagnosis  Describe pathogenesis, clinical features, and lab diagnosis of parasites Describe characteristic of amoeba Describe important properties, pathogenesis, and life cycles of other parasites in humans    C 2	characteristic, life cycle, pathogenesis, lab diagnosis  Describe pathogenesis, clinical features, and lab diagnosis of parasites  Describe characteristic of amoeba Describe important properties, pathogenesis, and life cycles of other parasites in humans  Skill Ic 2 Ic 2 Practical Demonstration  Stool RE Identify gross appearance of stool Interpret microscopic examination of stool Identify cysts and Ova in stool Identify malarial Parasite Identify life cycle of malarial parasite

### **VERTICALLY INTEGRATED MODULES**

### 5. PRECLINICAL OPERATIVE DENTISTRY

S.	Topic / Theme	Learning	Learning Objectives	IC	MITs	Assessment
No.		Outcomes		Codes		Tools
1	Fundamentals of class II cavity preparation	Describe fundamentals of class II cavity preparation	<ul> <li>Knowledge</li> <li>Discuss the preparation method for class II cavity preparation for amalgam restoration</li> <li>Discuss the choice for matrix system and handling of amalgam in class II cavity restoration</li> </ul>	IC 2	LGIS	MCQs SAQs Viva
2	Matrix and Retainer system	Discuss matrix and retainer system	<ul> <li>Knowledge</li> <li>Discuss the various uses of different matrix systems according to different clinical situations</li> <li>Discuss the advantages and uses in build-up of missing walls and regaining the contours</li> </ul>	IC 2	LGIS	MCQs SAQs Viva
3	Liner and Bases	Describe liner and Bases	<ul> <li>Enowledge</li> <li>Discuss the importance of their clinical use in restorations of different cavities</li> <li>Describe the method of application of these pulp protecting agents in deep carious lesions</li> </ul>	IC 2	LGIS	MCQs SAQs Viva

4	Pits and fissure sealants Infection control	Describe pits and fissure sealants Discuss infection control protocol	<ul> <li>Enowledge</li> <li>Describe the importance of pits and fissure sealants</li> <li>Describe the application method of pits and fissure sealants</li> <li>Describe the advantages and disadvantages of pits and fissure sealants</li> <li>Describe the importance of cross infection control, different method of sterilization, disinfection and their monitoring</li> </ul>	IC 2	LGIS	MCQs SAQs Viva
5	Class II preparation	Demonstrate class II preparation	Demonstrate the accurate method of cavity design and preparation and their modifications	IC 1 IC 4	Practical Demonstration	OSPE
6	Application of liner & bases	Apply cavity liner & bases	Demonstrate the indications according to clinical situation & method of application of liner and bases	IC 1 IC 3 IC 4 IC 5	Practical Demonstration	OSPE
7	Restoration of Class I cavity	Perform restoration of Class I cavity	<ul> <li>Skill</li> <li>Demonstrate the mixing of amalgam with motor and pestle</li> <li>Demonstrate the proper method of carrying amalgam to the cavity the condensation technique with finishing and polishing</li> </ul>	IC 1 IC 4 IC 5	Practical Demonstration	OSPE

8	Application of matrix and retainer system Restoration of Class II cavity	Apply matrix and retainer system for restoration  Prepare and restore Class II cavity	<ul> <li>Skill</li> <li>Demonstrate the application of matrix and retainer system, hands on performance of application of retainer in different clinical situation</li> <li>Demonstrate the mixing of amalgam with motor and pestle</li> <li>Demonstrate the proper method of carrying amalgam to the cavity the condensation technique with finishing and polishing</li> </ul>	IC 1 IC 4 IC 5	Practical Demonstration	OSPE
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## 6.PRE-CLINICAL PROSTHODONTICS

S. No.	Topic / Theme	Learning Outcomes	Learning Objectives	IC Codes	MITs	Assessme nt Tools
1	Artificial teeth	Describe properties and application of artificial teeth	Describe the different types of artificial based on the type of material and occlusa morphology  Describe the differences in occlusal morphology and their uses in different situations  Describe the differences between acry	IC 2	LGIS SGD	MCQs SAQs Viva
2	Arrangement of teeth	perform the complete denture tooth setup	<ul> <li>Describe the steps of anterior tooth setup in detail</li> <li>Differentiate between Overjet and Overbite</li> <li>Describe Class I canine relationship</li> <li>Describe steps of posterior tooth setup</li> <li>Describe Class I molar relationship</li> <li>Describe the compensating curves involved in tooth setup</li> <li>Perform complete denture tooth setup</li> </ul>		Interactive Lectures • Small Group Discussion (PBL) • Lab Demonstr ation	MCQs SAQs SEQs DOPS Viva

S. No.	Topic / Theme	Learning Outcomes	Learning Objectives	IC Codes	MITs	Assessme nt Tools
3	Laboratory procedures prior to insertion of dentures	Describe laboratory procedures prior to insertion of dentures	<ul> <li>Describe the different techniques used for flasking</li> <li>Enlist materials that can be used as separating media</li> <li>Differentiating between stages of setting of acrylic</li> </ul>	IC 2	LGIS SGD	MCQs SAQs Viva
4.	Spot Grinding	•Summarize the concepts of occlusal equilibration	<ul> <li>Define occlusal equilibration</li> <li>Enlist causes of occlusal disharmony</li> <li>Outline the steps involved in occlusal equilibration</li> <li>Enumerate the necessary armamentarium for occlusal adjustments</li> <li>Explain BULL's Law</li> <li>Pour a remount cast</li> <li>Perform occlusal adjustment on articulator</li> </ul>		• Interactive Lectures • Small Group Discussion (PBL) • Lab Demonstration	MCQs SAQs SEQs DOPS Viva

S. No.	Topic / Theme	Learning Outcomes	Learning Objectives	IC Codes	MITs	Assessme nt Tools
	INTRODUCTION	Differentiate between cast and acrylic partial  Define a partial denture Differentiate between cast partial and acrylic partial dentures Enumerate components of cast partial denture Define retention, support and stability			LGIS SGD	MCQs SEQs SAQs VIVA
	CLASSIFICATION OF PARTIALLY DENTATE ARCHES  Classify partially dentate arches using Kennedy's classification		<ul> <li>Enlist requirements of an acceptable classification system</li> <li>Describe Kennedy's classification for partially edentulous arches</li> <li>Highlight advantages and disadvantages of Kennedy's Classification</li> <li>Outline Applegate's rules that govern application of Kennedy's classification</li> <li>Create saddle areas according to Kennedy's Classification</li> </ul>			
	COMPONENTS OF CAST PARTIAL DENTURE:	Define rests			LGIS SGDs Demonstr ation	MCQs SAQs SEQs DOPS Viva

S. No.	Topic / Theme	Learning Outcomes	Learning Objectives	IC Codes	MITs	Assessme nt Tools
	Rest and rest seat					

### 7.RESEARCH METHODOLOGY

S. No.	Topic / Theme	Learning Outcomes	Learning Objectives	IC Codes	MITs	Assessment Tools
1	Research problem and a good research question	<ul> <li>Identify research problem</li> <li>Formulate a good research question</li> </ul>	<ul> <li>Identify a high-quality research problem</li> <li>Discuss criteria of selection of a research topic</li> </ul>	IC 2	LGIS	MCQs
2	Title rationale & objectives of the study	<ul> <li>Justify the research study title with reference to objectives</li> </ul>	<ul> <li>Describe characteristic of a good title</li> <li>Justify the selection of a research topic</li> <li>Formulate SMART research objectives</li> </ul>	IC 2	LGIS	MCQs
3	Introduction of variable and data	Identify different types of data and variables	<ul> <li>Define data, its types</li> <li>Identify different types of qualitative and quantitative variables, independent and dependent variables</li> </ul>	IC 2	LGIS	MCQs

# 8.BEHAVIOURAL SCIENCES

S.	Content/ Topic	Learning Outcomes	Learning Objectives	IC	MIT	Assessment
No.		At the end of this block	students will be able to:	Codes		Tools
	,	Anthr	opology			
1	Medical Ethics Vulnerable Population	Equip with required social skills along with clinical competencies to deal with vulnerable population	<ul> <li>Knowledge</li> <li>Demonstrate understanding of gender</li> <li>Understand the social construction of masculinity and femininity</li> <li>Describe societal attitudes towards children and elderly</li> <li>Discuss clinical competency to deal with vulnerable patients</li> </ul>	IC 2 IC 6	LGIS	MCQs
2	Stigma associated with HIV and sexually transmitted diseases	Critique perplexing ethical problems and their mitigation	<ul> <li>Knowledge</li> <li>Discuss the term "stigma" and "social discrimination"</li> <li>Discuss the role of a healthcare provider in protecting patients from stigma</li> <li>Discuss the potential issues of screening from social and moral perspectives</li> </ul>	IC 1 IC 2 IC 4	LGIS	MCQs

3	Medical Pluralism	Identify social organization of	<u>Knowledge</u>		LGIS	MCQs
		health care systems as a product of socio- political, economic, and cultural processes	<ul> <li>Discuss social organization of health system</li> </ul>	IC 2 IC 4		
			<ul> <li>Discuss the routes taken</li> </ul>			
			by patient before			
			reaching a doctor			

### **BLOCK II SYLLABI**

## 1.DENTAL MATERIALS

S. No	Date	Topic/ Theme	MITs
		Week - 01	
S. No	Date	Topic/ Theme	MITs
1	9-5-24	Introduction to Impression materials	LGIS
		Week 2	
2	13-5-24	Non-Elastic impression materials.	LGIS
3	14-5-24	Non-Elastic impression materials	LGIS
4.	16-5-24	Impression materials	Tutorial/SGD
		Practical	
1	13-5-24	Manipulation of impression compound	SGD/Practical
	14-5-24	Manipulation of impression compound	SGD/Practical
		Week – 03	
S. No	Date	Topic/ Theme	MITs
1	20-5-24	Gypsum	LGIS
2	21-5-24	Gypsum	LGIS
3	23-5-24	Non elastic impression materials.	LGIS
4	23-5-24	Gypsum	Tutorial/SGD

		Practical	
1	20-5-24	Manipulation of Plaster slab	SGD/Practical
	21-5-24	Manipulation of Plaster slab	SGD/Practical
		Week – 04	
S. No	Date	Topic/ Theme	MITs
1	27-5-24	Hydrocolloid Impression materials	LGIS
2	28-5-24	Hydrocolloid Impression materials	LGIS
3	30-5-24	Dental Waxes	LGIS
4	30-5-24	Hydrocolloids	Tutorial/SGD
		Practical	
1	27-5-24	Manipulation of Cavex	SGD/ Practical
	28-5-24	Manipulation of Cavex	SGD/ Practical
		Week – 05	
S. No	Date	Topic/ Theme	MITs
1	3-6-24	Elastomers	LGIS
2.	4-6-24	Elastomers	LGIS
3	6-6-24	Investment materials	LGIS
4	6-6-24	Elastomers	Tutorial/SGD
		Practical	
1.	3-6-24	Alginate mixing	SGD/ Practical

	4-6-24	Alginate mixing	SGD/ Practical
		Week – 06	
S. No	Date	Topic/ Theme	MITs
1	10-6-24	Elastomeric impression materials	LGIS
2	11-6-24	Elastomeric impression materials	LGIS
3	13-6-24	Investment materials	LGIS
		Practical	
1	10-6-24	Manipulation of elastomeric impression materials	SGD/ Practical
2	11-6-24	Manipulation of elastomeric impression materials	SGD/ Practical
		Week – 07	
S. No	Date	Topic/ Theme	MITs
1	15-7-24	Introduction to denture base polymers	LGIS
2	18-7-24	Denture base polymers	LGIS
3	18-7-24	Comparison of impression materials	Tutorial/SGD
		Week – 08	
S. No	Date	Topic/ Theme	MITs
1	22-7-24	Denture base polymers	LGIS
2	23-7-24	Denture base Polymers	LGIS
3	25-7-24	Comparison of self cure & heat cure/Artificial teeth	Tutorial/SGD
		Practical	
1	22-7-24	Manipulation of Acrylic	SGD/Practical

	23-7-24	Manipulation of Acrylic	SGD/Practical
		Week – 09	
S. No	Date	Topic/ Theme	MITs
1	29-7-24	Denture lining materials	LGIS
2	30-7-24	Denture lining materials	LGIS
3	1-8-24	Separating media	Tutorial/SGD
		Practical	
1	29-7-24	Steps of Denture Fabrication	SGD/ Practical
	30-7-24	Steps of Denture Fabrication	SGD/ Practical
		Week – 10	
S. No	Date	Topic/ Theme	MITs
1	5-8-24	Denture lining materials	LGIS
2	6-8-24	Dentures lining materials	LGIS
3	8-8-24	Metal Dentures	LGIS
4.	8-8-24	Denture base polymers	Tutorial/SGD
		Practical	
1	5-8-24	Denture Lining Materials	SGD/ Practical
	6-8-24	Denture Lining Materials	SGD/ Practical
		Week 11	
		Revision & class tests	
		Week 12	
		Block assessment	
Eid Holi	idays & Sumr	mer Vacation 17 <sup>th</sup> June 2024 15 <sup>th</sup> July 2024.	

## 2.COMMUNITY DENTISTRY

		Week – 01	
S. No	Date	Topic/ Theme	MIT
1	8-05-2024	Introduction to Block 2	LGIS
		Week -02	
1	13-05-2024	Levels of Prevention	LGIS
2	14-05-2024	Screening	LGIS
		Practical	
1	13-05-2024	Oral hygiene instructions	SGD/ Practical Demonstration
	14-05-2024	Oral hygiene instructions	SGD/ Practical Demonstration
		Tutorial	
1	15-05-2024	Discussion	LGIS
		Week – 03	
S. No	Date	Topic/ Theme	MIT
1	20-05-2024	Prevention of Dental Caries	LGIS
2	21-05-2024	Plaque disclosing agents	LGIS
3	22-05-2024	Pit and fissure sealants	LGIS
		Practical	
1	20-05-2024	Pit and fissure sealants	SGD/ Practical Demonstration
	21-05-2024	Pit and fissure sealants	SGD/ Practical Demonstration
		Tutorial	
1	22-05-2024	Discussion	LGIS
		Week – 04	
S. No	Date	Topic/ Theme	MIT
1	27-05-2024	Atraumatic Restorative Dentistry	LGIS
2	28-05-2024	Caries activity test	LGIS
3	29-05-2024	Mechanical and chemical plaque control	LGIS
		Practical	
1	27-05-2024	ART	SGD/ Practical Demonstration

	28-05-2024	ART	SGD/ Practical Demonstration
		Tutorial	
1	29-05-2024	Discussion	LGIS
		Week – 05	
S. No	Date	Topic/ Theme	MIT
1	3-06-2024	Tooth Brushing techniques	LGIS
2	4-06-2024	Tooth Brushing techniques	LGIS
3	5-06-2024	Interdental oral hygiene aids	LGIS
		Practical	
1	3-06-2024	Tooth brushing techniques	SGD/ Practical Demonstration
	4-06-2024	Tooth brushing techniques	SGD/ Practical Demonstration
		Tutorial	
1	5-06-2024	Discussion	LGIS

	Week – 06			
S. No	Date	Topic/ Theme	MIT	
1	10-06-2024	Prevention of Periodontal disease	LGIS	
2	11-06-2024	Prevention of Oral Cancer	LGIS	
3	12-06-2024	Prevention of wasting disease of teeth	LGIS	
		Practical		
1	10-06-2024	Flossing techniques	SGD/ Practical Demonstration	
	11-06-2024	Flossing techniques	SGD/ Practical Demonstration	
		Tutorial		
1	12-06-2024	Discussion	LGIS	
	·	Week – 07		
S. No	Date	Topic/ Theme	MIT	
1	15-07-2024	Introduction to fluorides	LGIS	
2	16-07-2024	Metabolism of fluorides	LGIS	
3	17-07-2024	Mechanism of action of fluorides	LGIS	

		Practical	
1	15-07-2024	Topical fluorides	SGD/ Practical Demonstration
	16-07-2024	Topical fluorides	SGD/ Practical Demonstration
	•	Tutorial	
1	17-07-2024	Discussion	LGIS
		Week – 08	
S. No	Date	Topic/ Theme	MIT
1	22-07-2024	Modes of fluoride administration	LGIS
2	23-07-2024	Topical fluoride application	LGIS
3	24-07-2024	Systemic fluoride application	LGIS
		Practical	
1	22-07-2024	Plaque Disclosing agents	SGD/ Practical Demonstration
	23-07-2024	Plaque Disclosing agents	SGD/ Practical Demonstration
		Tutorial	
1	24-07-2024	Discussion	LGIS
		Week – 09	
S. No	Date	Topic/ Theme	MIT
1	29-07-2024	Fluoride toxicity	LGIS
2	30-07-2024	Management of fluoride toxicity	LGIS
3	31-07-2024	Defluoridation	LGIS
		Practical	
1	29-07-2024	Dental Instruments	SGD/ Practical Demonstration
	30-07-2024	Dental Instruments	SGD/ Practical Demonstration
		Tutorial	
1	31-07-2024	Discussion	LGIS
		Week – 10	
S. No	Date	Topic/ Theme	MIT
1	05-08-2024	Occupational hazards in dentistry	LGIS
2	06-08-2024	Infection control in dentistry	LGIS
3	07-08-2024	Infection control in dentistry	LGIS

		Pra	actical		
1	05-08-2024	Dental Materials	SGD/ Practical Demonstration		
	06-08-2024	Dental Materials	SGD/ Practical Demonstration		
Tutorial					
1	07-08-2024	Discussion	LGIS		
		Week – 1	11: Revision		
Week -12 Block Assessment					
Eid Holidays & Summer Vacation 17 <sup>th</sup> June 2024 15 <sup>th</sup> July2024.					

## 3.PHARMACOLOGY

		Week – 01	
S. No	Date	Topic/ Theme	MIT
1	8-05-24	Introduction to chemotherapy	LGIS
2	9-05-24	Penicillins & Cephalosporins	LGIS
3	10-05-24	Macrolides & Aminoglycosides	LGIS
		Practical	
1	9-05-24	OSPE/VIVA VOCE	SGD/ Practical Demonstration
	10-05-24	OSPE/VIVA VOCE	SGD/ Practical Demonstration
		Tutorial	
1	8-05-23	Discussion	SGD
		Week – 02	
S. No	Date	Topic/ Theme	MIT
1	13-05-24	Sulphonamides & trimethoprim	LGIS
2	15-05-24	Convocation	LGIS
3	16-05-24	Tetracyclines	LGIS
		Practical	
1	16-05-24	Pharmacy calculations	SGD/ Practical Demonstration
	17-05-24	Pharmacy calculations	SGD/ Practical Demonstration
		Tutorial	
1	13-05-24	Other cell wall synthesis inhibitors	SGD
		Week – 03	
S. No	Date	Topic/ Theme	MIT
1	20-05-24	Disinfectants and antiseptics	LGIS
2	22-05-24	Chloramphenicol	LGIS
3	23-05-24	Quinolones	LGIS
		Practical	
1	23-05-24	Prescription writing	SGD/ Practical Demonstration
	24-05-24	Prescription writing	SGD/ Practical Demonstration

		Tutorial	
1	20-05-24	PTT/ Discussion.	SGD
		Test cell wall synthesis inhibitors	
		Week – 04	
S. No	Date	Topic/ Theme	MIT
1	27-05-24	Anti-mycobacterial I	LGIS
2	29-05-24	Anti-mycobacterial II	LGIS
3	30-05-24	Anti-amoebic drugs	LGIS
		Practical	
1	30-05-24	Prescription writing	SGD/ Practical Demonstration
	31-05-24	Prescription writing	SGD/ Practical Demonstration
		Tutorial	
1	27-05-24	PTT/Discussion	SGD
		Week – 05	
S. No	Date	Topic/ Theme	MIT
1	3-06-24	Anti-malarial I	LGIS
2	5-06-24	Anti-malarial II	LGIS
3	6-06-24	Anti-fungal drugs I	LGIS
		Practical	
1	6-06-24	Prescription writing	SGD/ Practical Demonstration
	7-06-24	Prescription writing	SGD/ Practical Demonstration
		Tutorial	
1	3-06-24	PTT/Discussion	SGD
		Week – 06	
S. No	Date	Topic/ Theme	MIT
1	10-06-24	Anti-viral I	LGIS
2	12-06-24	Anti-viral II	LGIS
3	13-06-24	Anti-neoplastic	LGIS

		Practical	
1	13-06-24	Prescription writing	SGD/ Practical Demonstration
	14-06-24	Prescription writing	SGD/ Practical Demonstration
		Tutorial	
1	10-06-24	Oral contraceptive pills	Dr Khadija Tariq LGIS
		Summer vacations: 17 <sup>th</sup> June to 1	15 <sup>th</sup> July
S. No	Date	Topic/ Theme	MIT
1	15-07-24	Anti-diabetic drugs I	LGIS
2	17-07-24	Anti- diabetic drugs II	LGIS
3	18-07-24	Anti-thyroid I	LGIS
		Practical	
1	18-07-24	Prescription writing	SGD/ Practical Demonstration
	19-07-24	Prescription writing	SGD/ Practical Demonstration
		Tutorial	
1	15-07-24	discussion	SGD
		Week – 08	
S. No	Date	Topic/ Theme	MIT
1	22-07-24	Anti-thyroid II	LGIS
2	24-07-24	Corticosteroids I	LGIS
3	25-07-24	Corticosteroids ii	
		Practical	
1	25-07-24	Prescription writing	SGD
	26-07-24	Prescription writing	SGD
		Tutorial	
1	22-07-24	PTT/Discussion	SGD
		Week – 09	
S. No	Date	Topic/ Theme	MIT
1	29-7-24	Corticosteroids II	LGIS
2	31-7-24	Revision	LGIS

3	1-8-24	Revision	LGIS		
		Practical			
1	1-8-24	Prescription writing	SGD/ Practical Demonstration		
	2-8-24	Prescription writing	SGD/ Practical Demonstration		
		Tutorial			
1	29-7-24	PTT/Discussion	SGD		
	Week – 10 &week 11 revision				
Week	Week 12 block assessment				

## 4. GENERAL PATHOLOGY

Week - 01

S. No	Date	Topic/ Theme	MIT		
1	8.05.2024	Oedema and Congestion	LGIS		
2	9.05.2024	Oedema and Congestion	LGIS		
3	10-05-24	Infarction	LGIS		
Practical					
1	9.05.2024	Intracellular Pigmentation	SGD/ Practical Demonstration		
	10.05.2024	Intracellular Pigmentation	SGD/ Practical Demonstration		
Tutorial					
1	9-5-24	Tutorial	SGD		
Week – 02					
S. No	Date	Topic/ Theme	MIT		
1	14.05.2024	Hyperaemia & Haemostasis	LGIS		
2	15.05.2024	Shock	LGIS		
3	16.05.2024	Thrombosis & Embolism	LGIS		
Practical					

1	16.05.2024	Infarction	SGD/ Practical Demonstration
1	17.05.2024	Infarction	SGD/ Practical Demonstration
	1	Tutorial	
1	14.05.2024	Tutorial	SGD
	1	Week – 03	
S. No	Date	Topic/ Theme	MIT
1	21.05.2024	Amyloidosis	LGIS
2	22.05.2024	Introduction to Neoplasia	LGIS
3	23.05.2024	Classification of tumours	LGIS
	1	Practical	
1	23.05.2024	Oedema & Congestion	SGD/ Practical Demonstration
_	24.05.2024	Oedema & Congestion	SGD/ Practical Demonstration
	1	Tutorial	
1	21.05.2024	Tutorial	SGD/ Practical Demonstration
	1	Week - 04	
S. No	Date	Topic/ Theme	MIT

1	28.05.2024	Benign vs Malignant Tumours	LGIS
2	29.05.2024	Oncogenes, Aetiology of Tumour	LGIS
3	30.05.2024	Biology & Mechanism of tumour spread	LGIS
	1	Practical	
1	30.05.2024	Thrombosis	SGD/ Practical Demonstration
_	31.05.2024	Thrombosis	SGD/ Practical Demonstration
	I	Tutorial	
1	28.05.2024	Tutorial	SGD
	<u> </u>		
		Week – 05	
S. No	Date	Topic/ Theme	MIT
1	04.06.2024	Pathogenesis of tumours	LGIS
2	05.06.2024	Biology & Mechanism of tumour spread	LGIS
3	06.06.2024	Carcinogenic agents and host defence against tumours	LGIS
	1	Practical	
1	06.06.2024	Sugar Test	SGD/ Practical Demonstration

	07.06.2024	Sugar Test	SGD/ Practical Demonstration			
	Tutorial					
1	4.06.2024	Tutorial	SGD			
		Week – 06				
S. No	Date	Topic/ Theme	MIT			
1	11.06.2024	Grading and staging of tumours	LGIS			
2	12.06.2024	Miscellaneous tumours	LGIS			
3	13.06.2024	Introduction and classification of Gram-Positive Rods	LGIS			
		Practical				
1	13.06.2024	Amyloidosis	SGD/ Practical Demonstration			
	14.06.2024	Amyloidosis	SGD/ Practical Demonstration			
		Tutorial				
1	11.06.2024	Tutorial	SGD			
		Week – 07				
S. No	Date	Topic/ Theme	MIT			
1	16.07.2024	Corynebacterium	LGIS			

2	17.07.2024	Listeria	LGIS
3	18.07.2024	Zoonotic organism	LGIS
	1	Practical	
1	18.07.2024	Urine R/E	SGD/ Practical Demonstration
	19.07.2024	Urine R/E	SGD/ Practical Demonstration
		Tutorial	
1	16.07.2024	Tutorial	LGIS
		Week - 08	
S. No	Date	Topic/ Theme	MIT
1	23.07.2024	Brucelle & Pasteurella	LGIS
2	24.07.2024	Gram positive and gram negative Anaerobes	LGIS
3	25.07.2024	Mycobacterium I, II, III	LGIS
	1	Practical	
1	25.07.2024	Lipoma	SGD/ Practical Demonstration
	26.07.2024	Lipoma	SGD/ Practical Demonstration
		Tutorial	

1	23.07.2024	Tutorial	SGD
	<u>I</u>	Week – 09	
S. No	Date	Topic/ Theme	MIT
1	30.07.2024	Actinomycosis/nocardia	LGIS
2	31.07.2024	Chlamydia, Rickettsia & Spirochetes	LGIS
3	1.08.2024	Introduction to parasitology	LGIS
	L	Practical	
1	1.08.2024	Leiomyoma	SGD/ Practical Demonstration
1	2.08.2024	Leiomyoma	SGD/ Practical Demonstration
	<u>l</u>	Tutorial	
1	30.07.2024	Tutorial	SGD
	<u>l</u>	Week – 10 and Week 11	L Revision
Block A	ssessment: We	ek 12	
Vac	cations: 17 <sup>th</sup> Ju	ne to 17 <sup>th</sup> July	

# 5.PRECLINICAL OPERATIVE DENTISTRY

Week – 01				
Date	Topic/ Theme	MIT		
10.05.2024	Fundaments for class II preparation	LGIS		
1	Practical	1		
08.05.2024		CCD/D III I		
10.05.2024	Class II preparation demo	SGD/ Practical		
l	Week - 02			
Date	Topic/ Theme	MIT		
17.05.2024	Fundaments for class II preparation	LGIS		
	Practical			
	10.05.2024 08.05.2024 10.05.2024 <b>Date</b>	Date Topic/ Theme  10.05.2024 Fundaments for class II preparation  Practical  08.05.2024 Class II preparation demo  10.05.2024 Week – 02  Date Topic/ Theme  17.05.2024 Fundaments for class II preparation	Date Topic/ Theme MIT  10.05.2024 Fundaments for class II preparation  Practical  08.05.2024 Class II preparation demo SGD/ Practical  Week – 02  Date Topic/ Theme MIT  17.05.2024 Fundaments for class II preparation LGIS	

15.05.2024 17.05.2024	Class II preparation	SGD/ Practical
	Week – 03	
Date	Topic/ Theme	MIT
24.05.2024	Matrix & Retainer system	LGIS
	Practical	
22.05.2024		
24.05.2024	Class II preparation	SGD/ Practical
- <b>I</b>	Week – 04	
Date	Topic/ Theme	MIT
31.05.2024	Restoration of Class II Amalgam	LGIS
	Practical	
29.05.2024		
31.05.2024	Restorative steps of class II	SGD/ Practical
1	Week – 05	1
Date	Topic/ Theme	MIT
	17.05.2024  Date  24.05.2024  24.05.2024  24.05.2024  29.05.2024  31.05.2024  31.05.2024	Class II preparation   Week - 03

5	7.06.2024	Liner & Bases	LGIS
	I	Practical	1
	5.06.2024		con/n :: I
5	7.06.2024	Class I & II restoration	SGD/ Practical
	<u> </u>	Week – 06	
S. No	Date	Topic/ Theme	MIT
6	14.06.2024	Pits & Fissure sealants	LGIS
	<u> </u>	Practical	
6	12.06.2024	Dubbar dam ravisian	CCD / Drootice
0	14.06.2024	Rubber dam revision	SGD/ Practical
	-	Week – 07	
S. No	Date	Topic/ Theme	MIT
7	19.07.2024	Infection Control	LGIS
		Practical	I
	17.07.2024		202/2
7	19.07.2024	Class I,II revision	SGD/Practical

	1			
S. No	Date	Topic/ Theme	MIT	
8	26.07.2024	Fundamentals of tooth preparation revision	LGIS	
	<u> </u>	Practical		
	24.07.2024		222/2	
8	26.07.2024	Class I,II revision	SGD/Practical	
		Week – 09		
S. No	Date	Topic/ Theme	MIT	
9	2.08.2024	Revision	LGIS	
	<u> </u>	Practical		
	31.07.2024			
9	2.08.2024	Completion of quota	SGD/Practical	
		Week – 10 and Week 11 Re	evision	
lock As	ssessment: W	/eek 12		
		, <del></del>		

# 6.PRECLINICAL PROSTHODONTICS

	Week – 01				
S. No	Date	Topic/ Theme	MIT		
1	10.05.2024	Artificial teeth	LGIS		
		Practical	<b>'</b>		
1	08.05.2024	Arrangement of teeth	SGD/ Practical		
1	10.05.2024	Arrangement of teeth	SGD/ Fractical		
		Week – 02			
S. No	Date	Topic/ Theme	MIT		
1	17.05.2024	Anterior teeth arrangement	LGIS		
		Practical	I		
	15.05.2024				
1	17.05.2024	Arrangement of teeth	SGD/Practical		
		Week – 03	-1		
S. No	Date	Topic/ Theme	MIT		
1	24.05.2024	Posterior teeth arrangement	LGIS		
	1	1			

		Practical	
1	22.05.2024	Arrangement of teeth	SGD/Practical
1	24.05.2024	Arrangement of teeth	3GD/Fractical
		Week – 04	
S. No	Date	Topic/ Theme	MIT
1	31.07.2024	Parts and surfaces of denture	LGIS
		Practical	I
	29.05.2024		
1	31.05.2024	Arrangement of teeth	SGD/ Practical
		Week – 05	
S. No	Date	Topic/ Theme	MIT
1	7.06.2024	Lab procedures prior to insertion-I	LGIS
		Practical	I
	5.06.2024		
1	7.06.2024	Flasking and dewaxing	SGD/ Practical
		Week – 06	

S. No	Date	Topic/ Theme	MIT
1	14. 06.2024	Lab procedures prior to insertion-II	LGIS
	<u> </u>	Practical	I
1	12.06.2024	Packing of acrylic and curing	SGD/Practical
1	14.06.2024	racking of activite and curing	SGD/Fractical
		Week - 07	I
S. No	Date	Topic/ Theme	MIT
1	19.07.2024	Occlusal equlibration	LGIS
		Practical	
1	17.07.2024	Finishing and polishing of denture	SGD/Practical
1	19.07.2024	Tillistillig and polistillig of deficure	SGD/Fractical
	<u> </u>	Week - 08	
S. No	Date	Topic/ Theme	MIT
1	26.07.2024	Introduction to removable partial denture	LGIS
		Practical	I
1	24.07.2024	Finishing and polishing of denture	SGD/Practical

	26.07.2024		
		Week - 09	
S. No	Date	Topic/ Theme	MIT
1	2.08.2024	Classification of partially edentulous arches	LGIS
		Practical	
	31.07.2024		
1	2.08.2024	Completion of quota	SGD/Practical
		Week – 10 and Week 11 Revision	<u> </u>
id Holida	ays & Summer V	Vacation 17 <sup>th</sup> June 2024 15 <sup>th</sup> July 2024. End of B	lock Exams

# **7- BEHAVIORAL SCIENCES**

		Week – 01	
S. No	Date	Topic/ Theme	MIT
1	10-05-24	Principles of Psychology – Attention and	LGIS
		Concentration	
		Week – 02	
S. No	Date	Topic/ Theme	MIT
1	17-05-24	Principle of Psychology – Memory	LGIS
		Week – 03	
S. No	Date	Topic/ Theme	MIT
1	24-05-24	Principles of Psychology – Memory	LGIS
		Week – 04	
S. No	Date	Topic/ Theme	MIT
1	31-05-24	Principles of Psychology – Thinking and	LGIS
		Problem Solving	
		Week – 05	
S. No	Date	Topic/ Theme	MIT
1	07-06-24	Individual Differences – Intelligence	LGIS
		Week – 06	
S. No	Date	Topic/ Theme	MIT
1	14-06-24	Individual Differences – Emotions	LGIS
		Summer vacations: 15th June to 14th July	2024
		Week – 07 Ashura Holiday 16 <sup>th</sup> – 17 <sup>th</sup> July	2024
		Week – 07	
S. No	Date	Topic/ Theme	MIT
1	19-07-24	Individual Differences – Personality	LGIS
		Week – 08	

S. No	Date	Topic/ Theme	MIT
1	26-07-24	Individual Differences – Personality	LGIS
		Development	
		Week – 09	
S. No	Date	Topic/ Theme	MIT
1	02-08-24	Neurological Basis of Behavior –	LGIS
		Motivation/Need/Drive	
		Week – 10	
S. No	Date	Topic/ Theme	MIT
1	09-08-24	Neurological Basis of Behavior – Learning	LGIS
	•	Week – 11	
S. No	Date	Topic/ Theme	MIT
1	16-08-24	Neurological Basis of Behavior – Learning	LGIS
		Principles	
		Week – 12	
S. No	Date	Topic/ Theme	MIT
1	23-08-24	Dental Ethics and Professionalism-I	LGIS
	•	Week – 13	
S. No	Date	Topic/ Theme	MIT
1	30-08-24	Dental Ethics and Professionalism-II	LGIS
		·	
		End of Block Exams	
		Summer vacations and Eid ul Azha: 15 <sup>th</sup> June to 14 <sup>th</sup>	<sup>h</sup> July 2024
		Ashura Holiday: 16 <sup>th</sup> – 17 <sup>th</sup> July 2024	

**7 LEARNING RESOURCES** 

# 1. **DENTAL MATERIALS**

### **Books**

Restorative Materials by Robert, Craig.

Phillips Skinner's Science of Dental Materials.

Clinical Handing of Dental Materials by B.N Smith.

**Dental Chemistry by Cunningham.** 

### **Must have Books**

M.Cabe Dental Materials

Preclinical Dental Sciences Work Book For Dental Students

Restorative Materials by Robert, Craig

#### Instruments

Glass slab

**Cement Spatula** 

Plastic instrument

Articulator (Hinge and Hanau)

Modeling Wax 1 box

Gloves

#### **Pliers**

Round, Straight and Adams. Wire cutter



Plaster and alginate mixing spatula,

Dycal applicator



**Set of measuring Scoop** 



Alginate mixing spatula



**Rubber Bowl** 

Measuring cylinder 100mlX2

Measuring Beaker 100ml



Plastic sheet

Mask Dental Blue Mixing Alginate Bowl Flexible Rubber 1 Pack Alginate Condenser Gypsum/plaster of Paris 4kg **Burnishers** Base former of model Upper and Lower arch Carver Dropper flask **Amalgam Carrier** Scale, Marker, Pencil **Matrix Band Mortar Pestle** Matrix band retainer Articulating paper Impression Trays partial denture set

# 2. COMMUNITY DENTISTRY

### **Books**

### **Textbooks**

Textbook of Preventive and Community Dentistry.2<sup>nd</sup> edition. S.S Hiremath

A textbook of public health dentistry

### **Recommended Books**

Burt, B. & Eklund, S. (1999) Dentistry, Dental Practice & The Community. 5th ed. Saunders.

Daly B, Watt R, Batchelor P & Treasure E (2002) Essential Dental Public Health, Oxford University Press.

Gluck G & Morganstein WM (2002) Jong's Community Dental Health 5th edition, Mosby.

Harris, N.O. & Christen, A.C. (1987) Primary Preventive Dentistry. 2nd ed. Reston Pub. Co.

Kent GC, AS Blinkhorn. (1993) The Psychology of Dental Care. 2nd edition, Wright Publication, London.

#### Instruments

#### **Examination Instruments**

ART

**Probes** 



Mirror

Probe

**Tweezer** 

#### **ART Instruments**



# **Dental Floss**



**Toothbrushing model** 

Murray, J.I. (ed.) (1996) Prevention of Oral Diseases. 3rd ed. Oxford University Press.

Phoon WO & PCY Chen (Eds). (1986) Textbook of Community Medicine in South East Asia. John Wiley & Sons.

Pine CM (ed.). (1997) Community Oral Health. Oxford: Wright Publication.

Scrambler Graham. (2003) Sociology as Applied to Medicine. 5th ed. WB Saunders Company.



CPITN-E and C
Michigan probe
Periodontal probe



Mouthwash



## 3. PHARMACOLOGY

### **Textbook**

- 1. Lippincott Illustrated Reviews Pharmacology 6<sup>th</sup> Edition
- 2. Basic and clinical Pharmacology by Bertram G Katzung 14<sup>th</sup> Edition

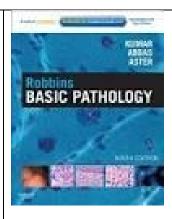
## **Reference book**

- 1. The Pharmacological Basis of Therapeutics by Goodman & Gilman 12<sup>th</sup> Edition
- 2. Davidson's Principles & Practice of Medicine 22<sup>nd</sup> Edition

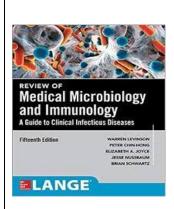
## 4. GENERAL PATHOLOGY

# **Books For General Pathology**

Robbins Basic Pathology: with STUDENT CONSULT Online
Access (Robbins Pathology)



Review of Medical Microbiology and Immunology (Lange Medical Books)



# 5. PRECLINICAL PROSTHODONTICS & OPERATIVE DENTISTRY

### **Recommended Books**

- 1. Sturdevant's Art and Science, South Asian Edition.
- 2. Prosthodontic treatment for edentulous patients by Zarb 13<sup>th</sup> Edition.
- 3. McCracken's Removable Partial Prosthodontics 13<sup>th</sup> Edition.

## 6- BEHAVIORAL SCIENCES

### **Recommended Books**

- 1. Handbook of Behavioral Sciences by Mowadat H. Rana (3<sup>rd</sup> edition)
- 2. Willumsen, T., Årøen Lein, J. P., Gorter, R. C., & Myran, L. (Eds.). (2002). Oral Health Psychology: Psychological Aspects Related to Dentistry. Springer Publishers. https://doi.org/10.1007/978-3-031-04248-5