



HILLING CHILLING

First Year MBBS LMS TOS





Department of Biochemistry



Sr.	Domain of		No. of	Cognitive Domain			
No.	Teaching Activity	Торіс	MCQ	C1	C2	C3	
1.	LGIS	Cell Membrane	06	2	3	1	
		Cell Organelles (Lysosome, Mitochondria, Golgi, Complex, Peroxisomes)	10	3	5	2	
		Physicochemical Properties	04	1	2	1	
2.	SDL	Cell, Cell Membrane	05	-	4	1	
3.	SGD	Bio Maker and their Clinical Importance	05	-	3	2	

Foundation Module

Foundation Module LMS-II

Sr.	Domain of		No. of	Cognitive Domain			
No.	Teaching Activity	Торіс	MCQ	C1	C2	C3	
		Nucleic Acid, Osmosis PH	06	2	3	1	
1.	LGIS	Enzymes and its Classification, Inhibitor	08	1	5	2	
		Factors Affecting Enzymes Action	02	-	2	-	
2.	SDL	Phenomenon of viscosity, surface tension.	5	-	4	1	
		Nucleic Acid Chemistry	5		3	2	
3.	SGD	Enzymes	4	1	3	-	



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Sr.	Domain of		No. of	Cognitive Domain			
No.	Teaching Activity	Торіс	MCQ	C1	C2	C3	
1	LGIS	Mineral introduction	3	2	1	-	
		Calcium	4	1	3	-	
1.		Phosphorous	4	-	3	1	
		Vitamin Classification	2	1	1		
		Vitamin E	6	-	4	2	
2.	SDL	Hypocalcemia	5		4	1	
		Hypercalcemia	4	-	1	3	
3.	SGD	Classification OF Vitamins	2	1	1		

MSK-I Module LMS 1

MSK-I Module LMS II

Sr.	Domain of		No. of	Cognitive Domain			
No.	Teaching Activity	Торіс	MCQ	C1	C2	C3	
1.	LGIS	Microminerals	10	2	7	1	
		Vitamin D	4	1	2	1	
2.		Wilsons Disease	5	-	2	3	
	SDL	Clinical Role of Microminerals	8	_	4	4	
3.	CBL	Night Blindness	3	-	1	2	



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LMS 1 Sr.	Domain of		No. of	Cognitive Domain			
No.	Teaching Activity	Topic	MCQ	C1	C2	C3	
	LGIS	Properties of amino acids & important peptides	4	2	1	1	
1.		Collagen structure and related disorder	5	1	3	1	
		Classification and functions of Proteins	4	-	3	1	
		Elastin structure and related disorder	5	1	1	3	
		Classification of Protein	3		2	1	
2.	SDL	Introduction to protein and amino acid	2	-	1	1	
		Disorder related to collagen	2		1	1	
3.	SGD	Protein Structure	5	1	1	3	

MSK-II Module LMS

MSK-II Module LMS II

C.	Domain of		NT. C	Cogi	nitive Don	nain
Sr. No.	Teaching Activity	Торіс	No. of MCQ	C1	C2	C3
1.		Primary protein structure	4	2	1	1
		Secondary Protein Structure	4	1	2	1
	LGIS	Tertiary and quaternary structure	4	2	1	1
		Protein folding & misfolding	4	1	2	1
		Protein separation technique	4	2	1	1
2	CDI	Protein misfolding disorders	2	-	1	1
2.	SDL	Protein denatueration	2	-	1	1
2	CDI	Protein folding & misfolding	2	-	1	1
3.	CBL	Alpha-1 antitrypsin Deficiency	2	-	1	1
4.	SGD	Collagen	2	-	1	1



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BLOOD AND IMMUNITY LMS-I

	Domain of		No of	Cogni	tive Do	main
Ser	Teaching Activity	Торіс	MCQs	C1	C2	C3
		Types, Structure, Synthesis and biochemical role of Haemoglobin and Myoglobin.	8	3	3	2
1.	LGIS	Normal Heme Synthesis and Degradation of Hb	6	2	3	1
		Hemoglobinopathies and other related abnormalities	5	2	1	2
2.	SGD / CBL	Hb and Oxygen Dissociation Curve	5	1	2	2
3.	SDL	Clinical Disorders Related to Heme Synthesis (Porphyrias)	3	1	2	-
5.		Haemoglobin Related Clinical Disorders	3	1	1	1

BLOOD AND IMMUNITY LMS-II

	Domain of		No of	Cognitive Domain		
Ser	Teaching Activity	Торіс	MCQs	C1	C2	C3
	LGIS	Plasma Proteins Functions, Synthesis, Biochemical role.	6	3	2	1
1.		Albumin and Acute Phase Proteins	6	1	3	2
		Vitamin K	3	1	2	-
		Haptoglobin and Ceruloplasmin	4	1	2	1
2.	SGD / CBL	Thalassemia	4	1	2	1
	SDL	Pathogenesis and Biochemical basis of AIDS	5	1	2	1
3.		Albumin related Diseases/Disorders	2	-	2	-

BLOOD AND IMMUNITY LMS-III

	Domain of		No of	Cognitive Domain		
	Teaching Activity	Торіс	MCQs	C1	C2	C3
		Vitamin B9 and B12	6	3	2	1
1.	LGIS	Transferrin, Ferritin, Hemosiderin	7	2	3	2
		Haptoglobin and Ceruloplasmin	6	2	2	2
2.	SGD / CBL	Heme Degradation and Jaundice	6	1	3	2
3.	SDL	Clinical Aspects of Vitamin K	5	1	3	1



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Sr.	Domain of		No. of	Cognitive Domain			
No.	Teaching Activity	Торіс	MCQ	C1	C2	C3	
1.	LGIS	Introduction n classification of carbohydrates & isomerism	10	4	6	-	
		Introduction n classification of lipids & fatty acids	7	2	4	1	
2.	SDL	Clinical role of carbohydrates	5	1	3	1	
2.		Clinical Role of lipids	4	1	2	1	
3.	SGD	Classification of carbohydrates & lipids	4	-	4	-	

CVS Module

LMS II

Sr. No.	Domain of		No. of	Cognitive Domain			
	Teaching Activity	Торіс	MCQ	C1	C2	C3	
1.	LGIS	Simple &Compound Lipids	6	1	4	1	
		Mutarotation & Monosaccharides	6	3	3	1	
2	SDI	Hypoglycemia	7	1	5	1	
2.	SDL	Ear wax impaction	6	1	4	1	
3.	SGD	Classification & properties of fatty acids	5	1	4	-	



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RESPIRATORY MODULE LMS-1

	Domain of		No of	Cogni	tive Do	main
Ser	Teaching Activity	Торіс	MCQs	C1	C2	C3
		pH and pKa	4	1	2	1
1.	LGIS	Body Buffers	4	1	2	1
		Mechanism of Energy Generation in the Body	5	2	2	1
2.	SGD / CBL	Electron Transport Chain	5	2	2	1
		Inhibitors of ETC	4	1	2	1
3.	SDL	Role of kidneys in Acid Base Disorders	4	1	2	1
		Role of Uncouplers In thermogenesis	4	1	2	1

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GIT-Module LMS 1

	Domain of		No of	Cognitive Domain			
Ser	Teaching Activity	Торіс	MCQs	C1	C2	C3	
		Introduction to carbohydrate metabolism	7	2	4	1	
		Saliva	5	1	3	1	
1.	LGIS	Metabolism of monosaccharides & disaccharides (Fructose, Lactose, Galactose)	5	1	3	1	
		Glycolysis	7	1	5	1	
2.	SDL	Pyruvate Kinase Deficiency	3		2	1	
3.	SGD	Saliva	3	1	1	1	

GIT-Module LMS II

	Domain of		No of	Cogn	itive Do	main
Ser	Teaching Activity	Торіс	MCQs	C1	C2	C3
		Citric acid cycle	5	2	2	1
		Functions of NADPH & deficiency of G6PD	6	2	2	2
1.	LGIS	Glycogen Metabolism	6	2	2	2
		Gastric Juice	3	1	2	
		Clinical disorders related to HMP shunt	5	-	2	3
2.	SDL	Glucose 6 Phosphate dehydrogenase deficiency	5	2	1	2
3.	CBL	Citric acid cycle	5	2	2	1

GIT-Module LMS III

	Domain of		No of	Cognitive Domain			
Ser	Teaching Activity	Торіс	MCQs	C1	C2	C3	
1	LCIS	Bile & Pancreatic Juice	8	5	2	1	
1.	LGIS	LFTs & Jaundice	8	3	5	-	
2.	SDL	Glycogen storage disorders	7	3	3	1	
3.	SGD	Gluconeogenesis & its regulation	7	3	3	1	



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RENAL MODULE LMS-1

	Domain of		No of	Cogn	itive Do	main
Ser	Teaching Activity	Торіс	MCQs	C1	C2	C3
		Nitrogen balance, Intro to protein metabolism, and general reactions of amino acids	5	3	2	-
		Urea cycle and its disorders (Includes MCQ with Spiral Integration)	6	1	3	2
		Glycine metabolism and related diseases	2	1	1	
		Tryptophan metabolism and related disorders	3	-	2	1
1.	LGIS	Arginine metabolism and related disorders	2	1	1	-
		Branched-chain amino acid metabolism and related disorders	2	-	1	1
		Polyamines metabolism (Includes MCQ with Horizontal Integration)	2	-	2	-
		Methionine metabolism and related disorders	1	-	1	-
2.	SGD / CBL	Metabolism of Phenylalanine (Includes MCQ with Horizontal Integration)	2	-	2	-
		Clinical Disorders Related to Phenylalanine and tyrosine metabolism (Includes MCQ with Vertical Integration)	3	-	2	1
3.	SDL	Clinical disorders of Ammonia metabolism/Toxicity (Includes MCQ with Horizontal Integration	2		2	



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Reproduction Module LMS-1

Sr.	Domain of		No. of	Cognitive Domain			
No.	Teaching Activity	Торіс	MCQ	C1	C2	C3	
1		Gene Expression	10	2	8	-	
1.	. LGIS	Nucleic Acid Synthesis & Purine Synthesis	4	-	4	-	
2.	SDI	Applied Knowledge of gene expression	5	1	3	1	
2.	SDL	Clinical Disorders related to purine synthesis	7	1	5	1	
3.	SGD	Denovo synthesis & purine salvage pathway	4	1	3	-	



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Sr.	Domain of		No.	Cogi	nitive Do	main
No.	Teaching Activity	Торіс	of MCQ	C1	C2	C3
		Triglyceride Metabolism Transport	6	3	2	1
1.	LGIS	Introduction to lipoproteins chylimicrons, VLDL Metabolism	5	1	3	1
		LDL, HDL metabolism	5	2	2	1
		Fatty acid oxidation 1	5	3	1	1
2.	SDL	Clinical role of chylomicron Metabolism	3	1	1	1
		Clinical Role of HDL & LDL metabolism	2	1	0	1
3.	SGD	Triglyceride Metabolism	4	2	1	1

CNS Module LMS I

CNS Module LMS II

Sr.	Domain of		No. of	Cognitive Domain			
No.	Teaching Activity	Торіс	MCQ	C1	C2	C3	
1.	LGIS	Fatty acid oxidation II	13	7	4	2	
		Hyperlipidemia and Fatty liver	12	6	3	3	
2.	SGD	Fatty acid Oxidation	5	1	4	-	

CNS Module LMS-III

Sr.	Domain of		No. of	Cognitive Domain			
No.	Teaching Activity	Торіс	MCQ	C1	C2	C3	
1.	LGIS	Fatty acid synthesis	10	4	6	-	
		Cholesterol synthesis and regulation	8	2	4	2	
		Fatty acid oxidation	2	1	0	1	
2.	SDL	Ketone Bodies synthesis	2	1	1	0	
		Cholesterol synthesis and regulation disorder	2	0	1	1	
3.	CBL	Respiratory distress syndrome	3	1	1	1	
э.	CBL	Ischemic Heart Disease	3	1	1	1	



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Special Senses Module LMS 1

Sr.	Domain of		No. of	Cognitive Domain			
No.	Teaching Activity	Торіс	MCQ	C1	C2	C3	
		Receptors Neurotransmitters	8	2	4	2	
1.	LGIS	Role of Vit A in Vision G-Protein	4	1	1	2	
		Second Messenger System	6	2	2	2	
2.	SDL	Neurotransmitters	4	2	1	1	
3.	SGD/CBL	G-Protein Night Blindness	8	4	2	2	



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Endocrinology Module LMS 1

Sr.	Domain of		No. of	Cognitive Domain		
No.	Teaching Activity	Торіс	MCQ	C1	C2	C3
		Classification and mechanism of action of hormones	4	2	1	1
1	LGIS	Thyroxin	6	1	2	3
1.		Parathyroid and Calcitonin	5	1	2	-2
		Adrenal cortical hormones	2	1	2	2
		Adrenal medullary hormones	5	1	2	2
2.	SDL	Describe synthesis, mechanism of action and functions of Aldosterone, Cortisol and Adrenal androgens	5	-	4	1
3.	SGD/CBL	Thyrotoxicosis	3		1	2

Endocrinology Module LMS II

Sr.	Domain of	Торіс	No. of	Cog	nitive Do	omain
No.	Teaching		MCQ	C1	C2	C3
	Activity					
1	LGIS	Insulin and glucagon	7	2	2	3
1.	LUIS	Blood glucose regulation	7	1	2	4
		Explain formation, mechanism of action and role of Insulin and Glucagon Discuss related diseases	5	-	2	3
2.	SDL	Normal & abnormal curves of glucose tolerance test and factors effecting it. Interpretation of GTT curves for Diabetes Mellitus	8	-	4	4
3.	CBL	Addison's Disease	3	-	1	2