

MSc Sem.-1 Examination

401

Pharma Science

February-2025

Time : 2-30 Hours]

[Max. Marks : 70

Q1A	Define and state the characteristics of hormones. Also gives general principles of hormone action.	7 Marks
Q1B	Explain all the major macro minerals in various aspects.	7 Marks
OR		
Q1A	Elucidate mechanism of ETC along with chemiosmotic model of ATP synthesis.	7 Marks
Q1B	Write in detail in concern with classification of enzymes.	7 Marks
OR		
Q2A	Enlist the methods for isolation of bacteria and write a brief note on any of the method indetailwith diagram.	7 Marks
Q2B	What is staining? Write a note on Gram staining.	7 Marks
OR		
Q2A	Write a detailed note on Growth curve of Bacteria.	7 Marks
Q2B	What is culture media? Give the difference between selective and differential media.	7 Marks
OR		
Q3A	What is the importance of pretransfusion or compatibility testing? Explain its antibody screening of the recipients' serum in detail.	7 Marks
Q3B	Explain erythropoiesis in detail.	7 Marks
OR		
Q3A	Draw chart on types of WBC. Explain each type in detail.	7 Marks
Q3B	What is HDNB? Explain reasons and symptoms of the disease. What laboratory evaluation and curative steps are taken by medicinal practitioners?	7 Marks
OR		
Q4A	Describe the steps involved in the fixation of tissues, including the choice of fixatives and their significance in preserving tissue morphology.	7 Marks
Q4B	Describe the structure and working of a microtome. Discuss its role in preparing tissue sections for microscopic analysis.	7 Marks
OR		
Q4A	Define histopathology and explain its importance in the diagnosis of diseases. Provide examples of how histopathological studies contribute to Pharmacology studies.	7 Marks
Q4B	Explain the principles of Hematoxylin and Eosin (H&E) staining, detailing the steps involved and the type of information it provides in histological studies.	7 Marks
OR		
Q5	Answer the following questions (Any Seven)	14 Marks
OR		
I	Explain oxidation and reduction reaction along with redox potential.	2 Marks
II	What is optical activity? why glycine is the only amino acid which is	2 Marks

(P.T.O)

E130A-2

	not optically active?	
III	Explain Km and Vmax graphically and describe it.	2 Marks
IV	What is Disinfection? Give any two examples of disinfectant.	2 Marks
V	What is Tyndallization? Give the mode of action of Heavy metals?	2 Marks
VI	What is the significance of Antibiotic susceptible testing in Pharmaceutical Industries.	2 Marks
VII	Which types of stains are present in Romanowsky stain?	2 Marks
VII	Define: Polycythemia, Erythropenia	2 Marks
IX	What is ESR? What conditions may cause elevated ESR.	2 Marks
X	Which staining method is considered the gold standard in histopathology?	2 Marks
XI	What is the role of decalcification in tissue processing?	2 Marks
XII	Name the embedding medium most commonly used in histopathology.	2 Marks

BEST OF LUCK