2212E710

Candidate's Seat No : 85

M.Sc. (Sem.-I) Examination

401 Bio Medical Technology (O/N)

Time : 3 Hours] December-2017 [Max. Marks

NB:	**All questions are compulsory** **Illustrate your answer with neat diagrams wherever necessary**	
Q-1(A)	Discuss the principle and construction of compound microscope.	7
OR (A)	Give an account on electron microscope.	
B)	Explain process and types of fixation.	7
OR (B)	Explain general histology of oesophagus and stomach.	
Q-2(A)	Write an account on secondary active transport with suitable examples.	7
OR (A)	Discuss the structure and functions of endoplasmic reticulum.	
(B)	Give an account of physical properties of plasma membrane.	7
OR (B)	Write a note on microtubules.	
Q-3(A)	Discuss the mechanism of pH measurement by glass electrode.	7
OR (A)	Describe different types of columns used in gas chromatography.	
(B)	Describe role of HPLC for the separation of polar and non-polar analytes.	7
OR (B)	Compare and discuss atomic absorption and flame emission spectroscopy.	
Q-4(A)	Explain gradient PAGE.	7
OR (A)	Write a note on myography.	
(B)	Write a note on ultracentrifugation.	7
OR (B)	Explain isoelectric focusing.	
Q-5	Answer the following **(one mark each).**	14
1	Which type of tissue/cells are seen in the nasopharyngeal lining.	
2	What is numerical aperture in microscopes?	
3	What are intermediate filaments? Give two examples.	
4	What is diameter of microfilaments?	
5	Enlist the polymorphic forms of lysosome.	
6	What is karyokinesis?	
7	What will happen to pH of solution when few drops of 0.1M HCl is added in very dilute solution of acids?	
8	What are tracking dyes? Give two examples.	
9	Why emission spectra is more complex than absorption spectra?	
10	What is gradient elution?	
11	Define molarity.	
12	What is the shape of spots in TLC and HPTLC.	
13	What is role of TEMED in PAGE?	
14	What is use of DNA ladder?	

P. T. O.