1804N252   Candidate's Seat No :_____

B.Sc Semester-4 Examination
CC 204
Biochemistry

Time : 2-30 Hours]   April-2024   [Max. Marks : 70

(ADVANCE TECHNIQUES)

Q1(a)	List any 3 applications of electron microscope. Give any three differences between TEM and SEM	(08)
Q1(b)	Define and give the formula for the following:	
	1. Resolving power 2. Total Magnification& Empty Magnification. 3. Numerical aperture.	(06)
Q1(a)	Explain the principle and working and applications of fluorescent microscope	(08)
Q1(b)	Name the three-lens system of a light compound microscope and List the functions.	(06)
Q2(a)	Discuss the applications of centrifuge	(08)
Q2(b)	Discuss principle behind centrifugation	(06)

OR

Q2(a)	Name the types of density gradient centrifugation. Discuss any one of them	(09
Q2(b)	Discuss the factors affecting the rate of sedimentation of a given particle. Define Svedberg unit	(05)
Q3(a)	Explain measurement of radioactivity by liquid scintillation method	(07)
Q3(b)	Write a note on autoradiography and its application	(07)

OR

Q3(a)	Discuss the working of GM counter	(07)
Q3(b)	List seven applications of radioisotopes in biological sciences	(07)
Q4(a)	List application of biostatistics	(07)
Q4(b)	Discuss merits and demerits of Mean, Median and Mode	(07)

OR

Q4(a)	Egg laid by species of bird were counted as 5,7,8,10,14,12,13,5,8,8.Findout mean deviation of the distribution	(06)
Q4(b)	Explain: Normal distribution curve	(08)
Q5	ANSWER THE FOLLOWINGS(ANY SEVEN)	14
1	What is the role of paraffin oil in 100X lens?	
2	What is the role of annular stopper in Dark field microscope?	
3	What is chromatic aberration & Spherical aberration	
4	List different types of rotors	
5	Name two gradient materials used in density gradient centrifugation	
6	Define: 1.RMP 2.RCF	
7	What is the unit of radioactivity? Define	
8	List two hazards of radioisotopes	
9	Define: Radioactivity decay	
10	Define standard deviation(SD). Write the formula to calculate SD	