22ZOU102N/ 22ZOU102/ 18ZOU02

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023
(First Semester)

Branch – **ZOOLOGY**

CELL BIOLOGY

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	What is the phenomenon of nuclear division? a) Telekinesis b) Cytokinesis c) Karyokinesis d) Autokinesis	K1	CO1
	2	Oil immersion objective lens has an NA value of a) 0.65 b) 0.85 c) 1.33 d)1.00	K2	CO2
2	3	Which of these are not the hydrolytic enzymes of lysosome? a) Lipases b) Sulfatases c) Phosphatases d) Aldolase	K1	CO1
	4	Name of the antibiotic which inhibits protein synthesis in eukaryotes a) Penicillin b) Cycloheximide c) Cinchonine d) Chloramphenicol	K2	CO2
3	5	In which of the following type of cells, the Gap junctions are absent? a) Sperm Cells b) Brain Cells Reproductive Cells d) Cardiac Cells	K1	CO1
	6	Protein Synthesis takes place in which of the following Cell Organelle? a) Cell wall b) Ribosome c) Nucleus d) Cytoplasm	K2	CO2
4	7	Name the unit of replication a) DNA b) Gene c) Replicon d) Chromosome	K1	CO1
	8	The conversion of messages carried by mRNA into Amino acid sequences is called a) Replication b) DNA repair c) Translation d) Transcription	K2	CO2
5	9	To which of the following residues of the protein, the protein kinases do not add phosphate groups? a) Serine b) Cytosine c) Threonine d) tyrosine	K1	CO1
	10	Cytokines serve as _____ for Apoptosis a) Internal Stimuli b) External Stimuli c) Inhibitors d) Substitutes	K2	CO2

Cont...

SECTION - B (35 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Compare the Mitosis and Meiosis cell division.	K2	CO2
		(OR)		
	11.b.	Describe the Cell Theory.		
2	12.a.	Outline the Lysosome and its Function.	K4	CO4
		(OR)		
	12.b.	Explain the biogenesis of mitochondria.		
3	13.a.	Elucidate the structure and function of the Endoplasmic reticulum.	K5	CO5
		(OR)		
	13.b.	Explore the composition of cell membrane.		
4	14.a.	Discuss the types of RNA and its characterization.	K3	CO3
		(OR)		
	14.b.	Determine the Structure of chromosome.		
5	15.a.	Interpret the role of oncogenes in cancer development.	K5	CO5
		(OR)		
	15.b.	Write the characteristics of Tumour suppressor genes.		

SECTION -C (30 Marks)

Answer **ANY THREE** questions

ALL questions carry **EQUAL** Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Discuss the various methods of sample preparation for electron microscope and their importance.	K4	CO4
2	17	Elucidate the methods for the transport of large molecules through the plasma membrane.	K5	CO5
3	18	Explain how cellular energy transaction takes place in Mitochondria.	K6	CO5
4	19	Assess the processing of Protein synthesis.	K5	CO5
5	20	Compile the characteristic features of Cancer Cell.	K6	CO5

Z-Z-Z END