TOTAL PAGES : 2

25ZOU102 / 22ZOU102N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2025
(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 typical minimum distance at which the human eye can focus on an object? a) 11 cm b) 25 cm c) 32 cm d) 42 cm	K1	CO1
	2	What is the correct order of phases in the cell cycle? a) $G_1 \rightarrow G_2 \rightarrow S \rightarrow M$ b) $G_1 \rightarrow S \rightarrow G_2 \rightarrow M$ c) $G_1 \rightarrow S \rightarrow M \rightarrow G_2$ d) $S \rightarrow M \rightarrow G_1 \rightarrow G_2$	K2	CO1
2	3	Who proposed the Fluid Mosaic Model of the plasma membrane? a) Camillo Golgi b) Watson and Crick c) Singer and Nicolson d) Danielli and Davson	K1	CO2
	4	The large ribosomal subunit in prokaryotes is the: a) 30S subunit b) 50S subunit c) 40S subunit d) 60S subunit	K2	CO2
3	5	The part of the Endoplasmic Reticulum without ribosomes is called? a)Rough ER b)smooth ER c)Endo ER d)Meta ER	K1	CO3
	6	The primary function of mitochondria is: a)Storing genetic information b) Producing proteins c) Generating ATP through aerobic respiration d) Transporting molecules within the cell	K2	CO3
4	7	How many pairs of autosomes are present in a human somatic cell? a) 20 pairs b) 22 pairs c) 23 pairs d) 44 pairs	K1	CO4
	8	The overall structure of the DNA double helix, as described by Watson and Crick, is known as: a) Z-DNA b) A-DNA c) B-DNA d) Quadraplex DNA	K2	CO4
5	9	Which of the following hormones requires a cell surface receptor for its action? a) Progesterone b) Vitamin D3 c) Steroid hormones d) Growth factors	K1	CO5
	10	Which of the following natural carcinogen affects Liver? a) Asbestos b) Aflatoxin B1 c) Melphalan d) Thiotepa	K2	CO5

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.	Explain the structure of prokaryotic cell.	K2	CO1
		(OR)		
	11.b.	Illustrate the applications of Electron microscope.		
2	12.a.	Compare the cell vomiting and cell eating.	K2	CO2
		(OR)		
	12.b.	Explain the structure of Golgi bodies		
3	13.a.	Explain the functions of Nucleus functions.	K2	CO3
		(OR)		
	13.b.	Compare the smooth Endoplasmic reticulum and rough Endoplasmic reticulum		
4	14.a.	Identify the special types Chromosome.	K3	CO4
		(OR)		
	14.b.	Illustrate the chemical structure of DNA.		
5	15.a.	Explain the Apoptosis.	K3	CO5
		(OR)		
	15.b.	Categorize the viral Oncogenes		

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	Explain about the Cell division.	K2	CO1
2	17	Discuss about the structure of Lysosome.	K2	CO2
3	18	Explain the chemical composition of Endoplasmic reticulum.	K4	CO3
4	19	Compare between the structure of DNA and RNA.	K4	CO4
5	20	Evaluate the characteristics of Cancer cell.	K5	CO5

Z-Z-Z END