

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2024
(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	The cells containing a true nucleus ----- a) Eukaryotic cells b) Prokaryotic cells c) Bacterial cells d) Fungal cells	K1	CO1
	2	----- is the second growth phase which prepares the cell for the mitotic phases a) M-phase b) S- phase c) G2 phase d) G1 phase	K2	CO2
2	3	Fluid Mosaic model was proposed by ----- a) Robertson b) Danielli & Davson c) Singer & Nicolson d) Hilleir & Hoffman	K1	CO1
	4	. The suicidal bag of a cell is called----- a) Golgi complex b) Ribosomes c) Lysosomes d) Mitochondria	K2	CO2
3	5	Which of the following is the site of cellular respiration in cells? a) Ribosomes b) Golgi complex c) Mitochondria d) Nucleus	K1	CO1
	6	The nucleus without a nuclear membrane ----- a) Nucleolus b) Nucleoid c) Nucleoplasm d) Nucleotide	K2	CO2
4	7	When the centrosome is located in the middle the chromosome is called ----- a) Telocentric b) Metacentric c) Acrocentric d) Submetacentric	K1	CO1
	8	The nitrogen base which is present only in RNA is----- a) Cytosine b) Adenine c) Uracil d) Guanine	K2	CO2
5	9	----- is programmed cell death a) Aging b) Apoptosis c) Mutation d) Proliferation	K1	CO1
	10	The spreading of tumour from one place to another is called----- a) Mutation b) Metastasis c) Contact inhibition d) Proliferation	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.	Explain the structure of prokaryotic cell with examples.	K3	CO3
	(OR)			
	11.b.	Describe the various phases of cell cycle.	K3	CO3
2	12.a.	Narrate the ultra structure and functions of golgi bodies.	K3	CO3
	(OR)			
	12.b.	Analyze the structure of lysosomes.	K3	CO3
3	13.a.	Explain the ultra structure of mitochondria and its functions.	K4	CO4
	(OR)			
	13.b.	Discuss about the structure and functions of centrosome.	K4	CO4
4	14.a.	Describe the structure of chromosomes with neat diagram.	K4	CO4
	(OR)			
	14.b.	Bring out the semi- conservative methods of DNA replication.	K4	CO4
5	15.a.	What is apoptosis? And significance of apoptosis.	K5	CO5
	(OR)			
	15.b.	Summarize the cell surface receptors.	K5	CO5

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	Enumerate the principle and applications of electron microscope.	K2	CO2
2	17	Discuss the ultra-structure and functions of plasma membrane.	K3	CO3
3	18	Summarize the structure and functions of endoplasmic reticulum.	K4	CO4
4	19	Elucidate the structure of mRNA and rRNA.	K4	CO4
5	20	Analyze the characteristics of cancer cells and cellular functions of oncogenes.	K5	CO5

Z-Z-Z END