

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(First Semester)

Branch – BIOCHEMISTRY

GENERAL 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 mode of life in <i>Taeniasoliumis</i> . a) Endoparasite b) Ectoparasite c) Hyperparasite d) Parasitoid	K1	CO1
	2	The shark has _____ type of caudal fin a) Homocercal b) Heterocercal c) Diphcercal d) None of the above	K2	CO1
2	3	A group of symptoms that occur together and represent a particular disease due to chromosomal abnormalities is referred to as a) Syndrome b) Disorder c) Disease d) Sex mosaic	K1	CO2
	4	Sex chromosomes are also called as a) Autosomes b) Allosomes c) Somatic chromosome d) eterochromosome	K2	CO2
3	5	Colourblindness is an example for a) Sex influenced genes b) Sex linked recessive genes c) Sex linked dominant genes d) Sex limited genes	K1	CO3
	6	ABO blood grouping is controlled by a) Multiple alleles b) Pseudoalleles c) Polygenes d) Sex linked genes	K2	CO3
4	7	Inborn errors of metabolism are caused by a) Dominant genes b) Recessive genes c) Polygenes d) Multiple alleles	K1	CO4
	8	The mathematical expression for Hardy Weinberg equilibrium is a) $p^2-2pq+q^2$ b) $p^2+-2pq-q^2$ c) $p^2+2pq+q^2$ d) $p^2+2pq+q^2=1$	K2	CO4
5	9	Smog is an example of a) Water pollutant b) Air Pollutant c) Wildlife depletion d) Energy depletion	K1	CO5
	10	The _____ are primary consumers of pond ecosystem a) Phytoplankton b) Zooplankton c) small fishes d) Large fishes	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.	Describe the mouth parts of Cockroach. Add a note on the digestive system in Cockroach.	K3	CO1
	(OR)			
	11.b.	Describe the Urinogenital system in Shark with suitable illustration.		
2	12.a.	Comment on the significance of Barr body.	K3	CO2
	(OR)			
	12.b.	Analyze the different types of chromosomes based on the position of centromere.		
3	13.a.	Narrate on ABO blood grouping in Man and Rh incompatibility as the reason for <i>Erythroblastosis foetalis</i> .	K4	CO3
	(OR)			
	13.b.	Summarise Extra chromosomal inheritance with an example.		
4	14.a.	Compare and contrast between Inbreeding and Outbreeding.	K4	CO4
	(OR)			
	14.b.	Bring out the significance of persons affected by Sick cell Anaemia.		
5	15.a.	Identify the major water pollutants. Enumerate the different measures to prevent it.	K4	CO5
	(OR)			
	15.b.	Elucidate on abiotic and biotic components of Pond ecosystem.		

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	Describe the life cycle of <i>Taenia solium</i> . Explain the diseases caused by it and the control measures to prevent it.	K3	CO1
2	17	Discuss the various numerical and structural aberrations of chromosomes.	K4	CO2
3	18	Elaborate on the inheritance of Colour blindness in man.	K3	CO3
4	19	Analyze various Inborn errors of metabolism.	K3	CO4
5	20	Enumerate the methods for conservation of various natural resources.	K4	CO5