

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2026
(Sixth Semester)

Branch – ZOOLOGY

BIOCHEMISTRY

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 number of optical isomers possible for glucose (i) 2 (ii) 4 (iii) 6 (iv) 8	K1	CO1
	2	The Glycosidic linkage in maltose is (i) α 1.....4 (ii) β 1...4 (iii) α 1.....2 (iv) β 1...2	K2	CO1
2	3	 is the storage form of lipid (i) TAG (ii) Cholesterol c (iii) Phospholipid (iv) Sphingolipids	K1	CO2
	4	Which of the following is not a phospholipid? (i) Lecithin (ii) Cephalin (iii) Cholesterol (iv) All the above	K2	CO2
3	5	The coenzyme involved in conversion of aminogroup is? (i) NADH + H ⁺ (ii) coA (iii) PLP (iv) TPP	K1	CO3
	6	Which protein site ids disrupted during denaturation? (i) primary structure (ii) Secondary structure (iii) Tertiary structure (iv) Both ii and iii	K2	CO3
4	7	A single strand of mRNA attached to a complex of ribosome is called (i) Okazaki fragments b (ii) Polymer (iii) Polysome (iv) Polypeptide	K1	CO4
	8	The bond that holds the nucleotide in (i) Covalent Bond (ii) Hydrogen Bond (iii) Phosphodiesterbond (iv) None of the above	K2	CO4
5	9	Identify the pathway which is not involved in energy derivation? (i) TCA cycle (ii) Glycolysis (iii) β - Oxidation (iv) Urea cycle	K1	CO5
	10	What is the biosynthetic source of all steroid hormones (i) Cholesterol (ii) Ketone bodies (iii) Carbohydrates (iv) Protein	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.	State the Structure and Properties of Lactose.	K1	CO1
		(OR)		
	11.b.	Recall the classification of Polysaccharides.		
2	12.a.	Outline the structure and function of Phospholipids.	K2	CO2
		(OR)		
	12.b.	Classify fatty acids in detail.		
3	13.a.	Construct the various Classification methods of aminoacids.	K3	CO3
		(OR)		
	13.b.	Organise how enzymes are used in diagnostic purpose.		
4	14.a.	Categorize the instrument set up of electrophoresis.	K4	CO4
		(OR)		
	14.b.	Examine the various types of RNA		
5	15.a.	Explain the β oxidation of fatty acids	K5	CO5
		(OR)		
	15.b.	Interpret the transamination reaction in detail		

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 Chemical reactions of Monosaccharides	K2	CO1
2	17	Interpret how lipids are classified.	K3	CO2
3	18	Organise the structural hierarchy of protein.	K4	CO3
4	19	Evaluate the watson crick model of double helical structure of DNA.	K5	CO4
5	20	Investigate the TCA cycle in detail.	K6	CO5

Z-Z-Z

END