

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2026
(Sixth Semester)

Branch - **BIOCHEMISTRY**

CLINICAL 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	Choose the common type of Diabetes mellitus. (i) Type 1 (ii) Type 2 (iii) Gestational (iv) Secondary DM	K1	CO1
	2	Find the complication that is classified as microvascular. (i) Retinopathy (ii) Stroke (iii) Heart attack (iv) Neuropathy	K2	CO1
2	3	Select the common cause of steatorrhea. (i) Pancreatic insufficiency (ii) Renal failure (iii) Diabetes mellitus (iv) Hypolipidemia	K1	CO2
	4	Mention the risk factor associated with high LDL level. (i) Fatty liver (ii) Stroke (iii) Acidosis (iv) Atherosclerosis	K2	CO2
3	5	Label from the following that is related to cystinuria. (i) Kidney stone (ii) Gall stone (iii) Pancreatic stone (iv) acidosis	K1	CO3
	6	Choose from the following that is related with elevated serum Troponin. (i) Liver damage (ii) Cardiac muscle injury (iii) Bone disease (iv) Kidney failure	K2	CO3
4	7	Which of the following is elevated in gout? (i) Urea (ii) Creatinine (iii) Uric acid (iv) Bile	K1	CO4
	8	Relate from the following that is associated with low uric acid and kidney stone made of xanthine (i) Xanthinuria (ii) Orotic aciduria (iii) Lesch- Nyhan syndrome (iv) Gout	K2	CO4
5	9	Select the circulatory thyroid hormone from the following. (i) T3 (ii) TSH (iii) T4 (iv) TRH	K1	CO5
	10	Find from the following that cause Cushing syndrome. (i) Excess cortisol (ii) ACTH Deficiency (iii) Diabetes mellitus (iv) TSH	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 diet therapy for Diabetes mellitus.	K2	CO1
		(OR)		
	11.b.	Summarize on Glycogen storage diseases.		
2	12.a.	Interpret the biochemical basis of Steatorrhea.	K2	CO1
		(OR)		
	12.b.	Outline the biochemical abnormalities in Abetalipoproteinemia.		
3	13.a.	Categorize the inborn errors of metabolism.	K4	CO2
		(OR)		
	13.b.	Distinguish the features of on cardiac marker enzymes.		
4	14.a.	Examine the metabolic defects in Xanthinuria.	K4	CO1
		(OR)		
	14.b.	Analyze the enzyme pattern in Jaundice.		
5	15.a.	Infer on the clinical applications of thyroid hormones .	K4	CO3
		(OR)		
	15.b.	Examine the factors affecting the catecholamine levels.		

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 the pathogenesis and pathophysiology of hyperglycemia.	K2	CO1
2	17	Summarize the biochemical features of ketoacidosis.	K2	CO1
3	18	Analyze the biochemical defects in albinism.	K4	CO2
4	19	Discover the mechanism responsible for hyperuricemia in gout .	K4	CO1
5	20	Assume the association between the cortisol level and depression.	K4	CO3

Z-Z-Z

END