

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**MSc DEGREE EXAMINATION DECEMBER 2025
(Third Semester)**

Branch - **BIOCHEMISTRY**

ADVANCED 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	What machine is used to test the blood? a) Auto analyzer b) Hemodialyzer c) Diathermy machine d) Ventilator	K1	CO1
	2	If a person has AB- blood, who all can donate blood to him? a) A+, B-, O-, AB+ b) A-, B-, O+, AB+ c) A+, B+, O+, AB- d) A-, B-, O-, AB-	K2	CO1
2	3	Which drug is indicated for pain related to acute renal calculi? a) Salicylates b) NSAIDS c) Narcotic analgesics d) Muscle relaxants	K1	CO2
	4	Which of the following is the term given to the condition of RBCs in urine? a) Haematuria b) Pyuria c) Haemoglobinuria d) Proteinuria	K2	CO2
3	5	Hypothyroidism causes in an adult is due to _____ a) Obesity b) Diabetes c) Cretinism d) Myxoedema	K1	CO3
	6	Lack of which hormone causes Addison's disease? a) Glucocorticoids b) Oxytocin c) Insulin d) Norepinephrine	K2	CO3
4	7	Which of the following clinical condition does not show increase of amylase concentration? a) Diabetic ketoacidosis b) Cardiac arrest c) Salivary gland disorders d) Ruptured ectopic pregnancy	K1	CO4
	8	Which vaccine is given to prevent Hepatitis B infection? a) BCG Vaccine b) Sabin Vaccine c) Salk Vaccine d) Recombivax HB	K2	CO4
5	9	Which of the following is a symptom for diabetes mellitus? a) Fever b) Bones panning c) Cold and cough d) Kussmalls respirations	K1	CO5
	10	Deposition of the plaque in the blood vessels is called as _____ a) Atherosclerosis b) Multiple Sclerosis c) Tunica Media d) Tunica Intima	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.	Give the procedure involved in the rheumatoid arthritis test.	K2	CO1
	(OR)			
	11.b.	Infer the composition, analysis and diagnostic importance of cerebrospinal fluid.		
2	12.a.	Develop the biochemical investigation of sputum.	K3	CO2
	(OR)			
	12.b.	Construct the clinical significance of urine components with special reference to bilirubin and porphyrins.		
3	13.a.	Organize the laboratory methods for evaluation of pituitary hormones.	K3	CO3
	(OR)			
	13.b.	Identify the principle of protein hormone assay and their clinical significance.		
4	14.a.	Examine the clinical significance of LDH, CPK and their pattern in myocardial infarction.	K4	CO4
	(OR)			
	14.b.	Analyze the renal creatinine clearance test and its clinical significance.		
5	15.a.	Categorize the different types of glycogen storage diseases.	K4	CO5
	(OR)			
	15.b.	Examine the disorders of potassium metabolism.		

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	Analyze the different types of viral markers.	K4	CO1
2	17	Examine the composition of kidney stones and procedure for stone analysis.	K4	CO2
3	18	Assess the principle of steroid hormone assay and their clinical significance.	K5	CO3
4	19	Explain the aetiology and types of liver cirrhosis.	K5	CO4
5	20	Elaborate the clinical features and biochemical correlations, complications of type II diabetes mellitus.	K6	CO5

Z-Z-Z END