

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

**MSc DEGREE EXAMINATION DECEMBER 2024
(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 is the optimum temperature to store blood right after collecting it? a) 25°C b) 22°C c) 20°C d) 15°C	K1	CO1
	2	Other than transfusion, when is it necessary to take the Rh factor into consideration? a) Cathertization b) Spleen Rupture c) Pregnancy d) Blood Donation	K2	CO1
2	3	About 90% of kidney stones can pass out through urinary system by drinking _____ a) Water b) Juice c) Sugar drinks d) Milk	K1	CO2
	4	The presence of ketone bodies in urine is an indication of which of the following diseases? a) Diabetes mellitus b) Diabetes insipidus c) High blood cholesterol d) Liver Cirrhosis	K2	CO2
3	5	Grave's disease is due to _____ a) Hyperactivity of thyroid gland b) Hyperactivity of adrenal medulla c) Hyperactivity of adrenal cortex d) Hyperactivity of islets of langerhans	K1	CO3
	6	Which hormone is responsible for reabsorption of sodium ions and water? a) Adrenaline b) Glucocorticoids c) Testosterone d) Aldosterone	K2	CO3
4	7	Which of the following is not a clinical condition associated with transaminases? a) Cardiac arrest b) Macroamylsemia c) Myocardial infarction d) Liver disease	K1	CO4
	8	Which type of Hepatitis cannot be transferred by blood or sexual contact? a) Hepatitis A b) Hepatitis B c) Hepatitis C d) Hepatitis D	K2	CO4
5	9	What do you mean by polydipsia? a) Thirst from dehydration b) Osmotic diuretic like activity being a hyperglycaemic c) Hunger d) Weight loss	K1	CO5
	10	Which of these is a hereditary disease caused due to an error in amino acid metabolism? a) Homocystinuria b) Albinism c) Phenylketonuria d) Branched-chain ketoaciduria	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.	Illustrate the immunologic test for pregnancy.	K2	CO1
		(OR)		
	11.b.	Infer the origin, composition and analysis of amniotic fluid.		
2	12.a.	Develop the chemical examination and clinical significance of stool.	K3	CO2
		(OR)		
	12.b.	Construct the examination of gastric and duodenal contents.		
3	13.a.	Organize the laboratory methods for evaluation of hypo and hyper functions of parathyroid hormones.	K3	CO3
		(OR)		
	13.b.	Identify the principle of adrenal medullary hormone assay and their clinical significance.		
4	14.a.	Examine the clinical significance of AST, ALT and their pattern in myocardial infarction.	K4	CO4
		(OR)		
	14.b.	Analyze the tubeless gastric analysis test.		
5	15.a.	Categorize the different types of lipoproteinemia.	K4	CO5
		(OR)		
	15.b.	Examine the disorders of sodium 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 collection, processing and transfusion process of blood.	K4	CO1
2	17	Examine the aetiology, diagnosis and treatment of gall stones.	K4	CO2
3	18	Assess the principle of thyroid hormone assay and their clinical significance.	K5	CO3
4	19	Explain the urea and inulin clearance test.	K5	CO4
5	20	Elaborate the clinical features and biochemical correlations, complications of type I diabetes mellitus.	K6	CO5

Z-Z-Z END