



Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Master's Degree Examination – June / July 2021
II Semester

Class: I PG
Major: Biochemistry

Time : 3 Hours
Max Marks : 100

20MBCC09 Diagnostic Biochemistry
Part A

10 x 1 = 10

Choose the Correct Answer

- All the following are important electrolytes in the body except: CO1K2
a. potassium ions b. carbon ions c. chloride ions d. sodium ions
- When instructing the patient to collect a stool specimen, the medical assistant should tell the patient to: CO1K1
a. collect about 3 to 4 tablespoons of stool from next bowel movement.
b. place urine in the cup also.
c. keep specimen at room temperature for the duration.
d. collect stool from the first morning bowel movement.
- Which part of the blood is affected in sickle cell anemia ? CO2K2
a. WBC b. Hemoglobin c. RBC d. Platelets
- Which one of the following is the Most common disease of amino acids metabolism? CO2K2
a. Homocystinuria b. Albinism
c. Phenylketonuria d. Maple Syrup Urine Disease
- Creatinine Clearance CO3K1
a. Is a sensitive marker for urolithiasis
b. Is a sensitive marker of tubular function
c. Is a sensitive marker of glomerular function
d. Is a sensitive marker for measurement of skeletal muscle mass.
- Which is the best screening tests for acute pancreatitis CO3K2
a. Total serum amylase b. Serum lipase c. Both d. Neither
- Which of the following marker is used for the differential diagnosis of obstructive jaundice? CO4K2
a. Lactate dehydrogenase b. Creatine Kinase
c. Carbonic anhydrase d. 5'- Nucleotidase
- Which of the following factor is responsible for atherosclerosis? CO4K2
a. age b. genetic factor c. smocking d. all the above
- The test for checking mean plasma glucose concentration over the previous 8-10 weeks is: CO5K2
a. Hemoglobin A1c b. Oral glucose tolerance test (OGTT)
c. Fructosamine test d. Fasting plasma glucose concentration
- Which of these is the most important cause of adult onset epilepsy? CO5K2
a. neurocysticercosis
b. neurotoxoplasmosis
c. primary amoebic meningoencephalitis
d. African trypanosomiasis

Part - B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. What are the types of specimen collected for biochemical assay. CO1K2
(or)
11.b. Interpret on pathological variations of water and electrolyte analysis. CO1K2
- 12.a. Write a short note on symptoms and pathological changes in Alkaptonuria and Albinism. CO2K3
(or)
12.b. List out the plasma proteins and how it is involved in diagnosis of disease. CO3K3
- 13.a. Write a note on Important quantitative tests of renal function include those of glomerular filtration rate, renal clearance and renal blood flow. CO4K3
(or)
13.b. Evaluate the gastric function by stimulation test and tubeless gastric analysis. CO3K5
- 14.a. Name the different types of jaundice and explain how to diagnose them. CO4K1
(or)
14.b. Give an account on Atherosclerosis. CO4K2
- 15.a. Enumerate on Glucose Tolerance test. (GTT) CO5K1
(or)
15.b. Explain the Clinical importance of the enzymes and isoenzymes LDH and CK. CO5K3

Part - C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Summarize the homeostasis process of Water and Electrolytes. CO1K3
(or)
16.b. Explain the mechanism of regulation of Acid base balance. CO1K3
- 17.a. Describe the inherited disorders associated with urea cycle. CO2K1
(or)
17.b. Explain the pathophysiological changes in thalassemias. CO2K3
- 18.a. Elaborate the tests for the diagnosis of Diseases related to kidney. CO3K2
(or)
18.b. Describe the clinical significance and diagnosis tests for Lesch-Nyhan syndrome and orotic aciduria. CO3K1
- 19.a. Summarize about the Pancreatic function tests. CO4K3
(or)
19.b. Correlate the Biochemical changes in cancer and detection of tumor markers. CO4K2
- 20.a. Discuss the regulation and its clinical significance of blood glucose level ? CO5K2
(or)
20.b. Explain about the clinical significance and diagnosis tests for Parkinson's and Alzheimer's disease. CO5K3
