



Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)

Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

Master's Degree Examination – May 2025

II Semester

Class : I P.G.
Major : Food Service Management and Dietetics

Time: 3 Hours
Max. Marks: 100

23MFDC09 Biochemical Changes in Diseases

Course Outcomes:

CO1: Comprehend and relate the physiological changes in diseases

CO2: Apply biochemical principles for various disease conditions

CO3: Learn to interpret medical terminology and laboratory parameters relating to nutrition

CO4: Differentiate normal and abnormal biochemical parameters.

CO5: Understand the requisite biochemical parameters for healthy lifestyle.

Part A

10 x 1 = 10

Choose the Correct Answer

1. The pH of blood is about CO1K2
a. 7.4 b. 1.2 c. 8.9 d. 3.2
2. Which enzyme converts trypsinogen of pancreatic juice into trypsin? CO1K2
a. lactase b. enterokinase c. peptidase d. amylase
3. Pick out the primary hypoglycemic hormone CO2K3
a. Insulin b. somatostatin c. glucagon d. polypeptides
4. Glucagon is produced by CO2K2
a. alpha cells b. beta cells c. gamma cells d. T cells
5. Regulation of fluid and electrolyte balance occur in CO3K3
a. GI tract and stomach b. GI tract and kidney
c. stomach & liver d. stomach & kidney
6. Normal urine output in an adult is CO4K3
a. 1000 to 2000 ml/day b. 1000 to 2500 ml/day
c. 1000 to 1800 ml/day d. 1000 to 4000 ml/day
7. Identify the enzyme that converts fats to fatty acids and glycerol? CO4K2
a. lipase b. amylase c. maltase d. protease
8. The essential nutrient for an AIDS patient is CO4K2
a. protein b. fat c. fibre d. iodine
9. Type IV allergy is called as CO5K2
a. anaphylactic reaction b. delayed hypersensitivity
c. antigen antibody reaction d. Immuno Hypersensitivity
10. Hippuric acid test is used to find out which function of the liver. CO5K3
a. Excretory b. Detoxification c. Secretory d. Storage

Part B**5 x 6 = 30****Answer ALL questions****Each answer should not exceed 400 words or two pages**

- 11.a. Explain the clinical significance of blood. CO1K3
(or)
- 11.b. Infer on the significance of maintenance of pH in body fluids. CO1K3
- 12.a. Outline the significance of hormones associated in carbohydrate metabolism. CO2K3
(or)
- 12.b. Explain the disorders of gall bladder. CO2K3
- 13.a. Illustrate and explain normal protein metabolism. CO3K4
(or)
- 13.b. Brief on the symptoms and preventive measures associated with acute kidney diseases. CO3K4
- 14.a. Give an account on disease associated with flatulence. CO4K3
(or)
- 14.b. Summarise on the nutritional challenges in cancer. CO4K3
- 15.a. Outline the significance of gastric function tests. CO5K3
(or)
- 15.b. Give the significance of metabolism of drugs. CO5K3

Part C**5 x 12 = 60****Answer ALL questions****Each answer should not exceed 800 words or four pages**

- 16.a. Explicate the clinical significance of cerebrospinal fluid and synovial fluid. CO1K4
(or)
- 16.b. Appraise on the regulation of acid-base balance. CO1K4
- 17.a. Discuss in detail the interplay of hormones associated with hypoglycemia. CO2K5
(or)
- 17.b. Enumerate in detail the disorders of liver and pancreas. CO2K5
- 18.a. Explain in detail the nitrogen metabolism of urea and uric acid. CO3K4
(or)
- 18.b. Summarise the symptoms and preventive measures associated with chronic kidney diseases. CO3K4
- 19.a. Explain the disorders of gluten sensitive enteropathy and its dietary prevention. CO4K3
(or)
- 19.b. Enumerate on the nutritional changes observed in irritable bowel syndrome and its methods of dietary treatment. CO4K4
- 20.a. Describe the computerized analytical techniques for biomarkers for pancreatic function tests. CO5K4
(or)
- 20.b. Record the importance of nutrient interaction of drugs, with absorption and distribution. CO5K4
