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

Bachelor's Degree Examination – May 2025
II Semester

Class : I UG / 2023 Batch **Time: 3 Hours**
Major : Physician Assistant **Max. Marks: 100**

22BPAD02 DSE II : Clinical Biochemistry

Course Outcomes:

On the successful completion of the course, students will be able to
- CO1: Demonstrate the collection f biological samples and preservation methods
- CO2: Gain the knowledge for the clinical significance of metabolic disorder of carbohydrate
- CO3: Understand the impact of various metabolic disorders of protein
- CO4: Analyse the metabolic disorders of lipids and its impact
- CO5: The students will know the importance of clinical enzymology

Part A **10 x 1 = 10**
Choose the Correct Answer

1. Collection of amniotic fluid is known as CO1 K1
   a. Amniocentesis b. Choriocentesis c. Aminoglycosides d. Chorionic villi

2. Infection in the urine is identified through which urine specimen CO1 K1
   a. 24 Hrs b. Midstream Urine c. Catheterized specimen d. Creed Metod

3. Glucose tolerance test is used to diagnose CO2 K1
   a. Diabetic ketoacidosis b. Diabetes retinopathy
   c. Diabetes Mellitus d. Diabetes insipidus

4. The normal range of HBA1c CO2 K1
   a. 4% / 5.6% b. 5.7% / 6.7% c. 6.7% - 8.6% d. 9.6% and Above

5. Inability to breakdown lipid in the body is known as CO3 K2
   a. Hyperlipoproteinemia b. Hypolipoproteinemia
   c. Hyperlipidemia d. Hypercholesterolemia

6. Nonalcoholic Fatty liver disease is a condition which occurs because of deposition of CO3 K1
   a. Protein b. Calcium c. Fat d. Glucose

7. Decreased melanin production results in CO4 K2
   a. Anemia b. Acidosis c. Albinism d. Cystic fibrosis

8. Amino acid cystine build up in the body cell is known as CO4 K2
   a. Cytokines b. Cystinosis c. Cristine Phosphokinase d. Crohn's disease

9. Lactate dehydrogenase test is used identify CO5 K2
   a. Tisue damage b. Bone Damage c. Blood Vessel Damage d. Lymphatic fluid damage

10. Protein which helps to breakdown carbohydrates is knowns as CO5 K2
    a. amylase b. lipase c. protease d.procalcitonin

Part B **5 x 6 = 30**

Answer ALL questions

Each answer should not exceed 400 words or two pages

11.a. Explain Lumbar puncture procedure.	CO1 K1
(or)	
11. b. Demonstrate collection of faeces.	CO1 K1
12. a. Illustrate GTT and its interpretation.	CO2 K3
(or)	
12. b. Define ketone body and the steps for the synthesis of ketone bodies.	CO2 K2
13. a. illustrate the types of fatty liver.	CO3 K3
(or)	
13. b. Explain the clinical classification of hyperlipidemia.	CO3 K2
14. a. Discuss in detail about Maple syrupurine disease.	CO4 K2
(or)	
14. b. Explain phenylketonuria.	CO4 K2
15. a. Discuss creatine phosphokinase.	CO5 K2
(or)	
15. b. Explain about amylase test.	CO5 K2

Part C **5 x 12 = 60**

Answer ALL questions

Each answer should not exceed 800 words or four pages

16. a. Explain in detail about the types of collection of urine specimen and clinical significance.	CO1 K2
(or)	
16. b. Interpret the preservation of blood and anticoagulant and the normal value of bio chemical Parameter.	CO1 K1
17. a. Define Diabetes Mellitus(DM) and its type. Discuss the Metabolic changes in DM.	CO2 K2
(or)	
17. b. Explain about Lactic Acidosis, Fructose and Lactose intolerance.	CO2 K2
18. a. Classify Lipoprotein and its clinical significations.	CO3 K2
(or)	
18. b. Define BMI, List the causes of obesity and complications.	CO3 K3
19. a. Define plasma protein and its components, discuss the role in disease process.	CO4 K2
(or)	
19. b. Define Gout, Discuss the types of Gout and its manifestations.	CO4 K2
20. a. Explain Aminotranferases and its clinical importance.	CO5 K2
(or)	
20. b. Explain lactate dehydrogenase and its clinic significance.	CO5 K2

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