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 **Time : 3 Hours**
Major : Food Service Management and Dietetics **Max. Marks : 100**

20MFDC09 Biochemical Changes in Diseases

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

1. The normal diastolic blood pressure in a normal healthy adult human is CO1K1
   a. 80 mm Hg b.60 mm Hg c.90 mm Hg d.110 mm

2. Which of the following is characterized as metabolic alkalosis? CO2K2
   a. increased pH, decreased pCO2, decreased $HCO3^-$
   b. increased pH, increased pCO2, increased $HCO3^-$
   c. decreased pH, decreased pCO2, decreased $HCO3^-$
   d. decreased pH, increased pCO2, increased $HCO3^-$

3. What is the net gain of ATP during the conversion of glucose to pyruvate? CO2K3
   a. 2 ATP b. 4 ATP c. 6 ATP d. 1 ATP +1 GTP

4. Familial hypercholesterolemia is a genetic disorder of cholesterol metabolism. The defect lies in CO2K3
   a. Transport of cholesterol from extrahepatic tissue to the liver
   b. Impairment of cholesterol degradative pathway
   c. Impairment of uptake of cholesterol by tissues
   d. Impairment of HDL metabolism due to deficiency of Apo-A

5. Transamination reaction in amino acid synthesis is catalyzed by enzyme_____ CO2K1
   a. Nitric oxide synthase b. Decarboxylase
   c. Aminotransferase d. Glutamate decarboxylase

6. Which of these is a hereditary disease caused due to an error in amino acid metabolism? CO3K3
   a. Homocystinuria b. Albinism
   c. Phenylketonuriad. Branche d-chain ketoaciduria

7. What process distinguishes malignant tumors from benign tumors? CO3K4
   a. Rate of tumor growth b. Size of tumor
   c. Location of tumor d. Metastasis

8. HIV parasitizes ____ CO3K2
   a.Y-helper cells b. T-helper cells c. K-helper cells d. None of the above

9. A predominantly direct hyperbilirubinemia is present in all of the following causes of jaundice, except: CO4K4
   a. Hemolysis b. Bile duct obstruction
   c. Drug-induced liver injury d. Primary biliary cirrhosis

10. Which of the following is not usually considered for drug nutrient interaction when using diuretics. CO5K2
    a. Vitamin D b. Vitamin C c. Potassium d. Vitamin B_6

Part B **5 x 6 = 30**

Answer ALL questions

Each answer should not exceed 400 words or two pages

11.a. Recall the constituents of urine.	CO1K1
(or)	
11.b. Identify the buffer systems of the body.	CO1K2
12.a. Enumerate are the major pathways of carbohydrate metabolism.	CO2K1
(or)	
12.b. Explain the significance of lipoproteins?	CO2K2
13.a. Explain transamination and its significance.	CO2K2
(or)	
13.b. Compare and contrast acute and chronic kidney disease.	CO3 K4
14.a. Describe the clinical manifestations of irritable bowel syndrome.	CO4K2
(or)	
14.b. Explain the patho physiological mechanism underlying tumorogenesis.	CO4K2
15.a. Classify liver function tests. Describe tests based on excretory andsynthetic function of liver.	CO4K2
(or)	
15.b. Explain the importance of drug nutrient interaction.	CO5K2

sPart C **5 x 12 = 60**

Answer ALL questions

Each answer should not exceed 800 words or four pages

16.a. Describe the constituents and functions of blood.	CO1K2
(or)	
16.b. Explain the regulation of acid base balance of the body.	CO1K3
17.a. Describe the metabolic changes in Diabetes.	CO2K2
(or)	
17.b. Describe the formation and fate of ketone bodies.Add a note on ketosis.	CO2K2
18.a. Show the detoxication of ammonia by urea cycle. Explain its regulation anddisorders.	CO3K2
(or)	
18.b. Explain the derangements in nitrogen metabolism in cancer and burns	CO3K3
19.a. Outline the causes, clinical manifestation and metabolic alterations in intestinal brush border enzyme deficiency.	CO4K4
(or)	
19.b. Appraise the metabolic and nutritional alteration in cancer.	CO3K5
20.a. Interpret the clinical significance of the renal function tests	CO4K2
(or)	
20.b. Explain the drug nutrient interaction with special reference to vitamins and minerals.	CO5K2

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