



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – B.Physiotherapy-2022/B.Physiotherapy-2023

Course Name – Clinical Biochemistry

Course Code - BPTC103

(Semester I)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Von Willebrand disease is correlated with
- | | |
|----------------------------|--|
| a) Platelet activation | b) fibrin formation |
| c) Platelet plug formation | d) Both fibrin formation and Platelet plug formation |
- (ii) Creatine kinase is related to
- | | |
|-------------------|--|
| a) Liver diseases | b) early marker of acute myocardial infarction |
| c) Jaundice | d) cancer |
- (iii) The biochemical investigation of the blood specimen showed Bilirubin- 4.5 mg/dl, ALT- 150 IU/L, AST- 200 IU/L, Albumin- 25 mg/dL. What is the likely biochemical diagnosis?
- | | |
|----------------------------|------------------------------|
| a) Hemolytic Jaundice | b) Acute hepatic disease |
| c) Chronic hepatic disease | d) Obstructive liver disease |
- (iv) Identify the major storage form of carbohydrates in animals
- | | |
|------------|-------------|
| a) Glucose | b) Glycogen |
| c) Starch | d) Chitin |
- (v) Dextrin is an example of:
- | | |
|-----------------------|--------------------|
| a) Disaccharide | b) Oligosaccharide |
| c) Homopolysaccharide | d) Glycoprotein |
- (vi) Which of the following enzymes are not involved in galactose metabolism?
- | | |
|------------------|-------------------------------|
| a) Galactokinase | b) Galatokinase |
| c) Glucokinase | d) UDP-Galactose 4- epimerase |
- (vii) Choose among which one is a tricarboxylic acid?
- | | |
|----------------|---------------------|
| a) Acetic acid | b) Succinic acid |
| c) citric acid | d) Oxaloacetic acid |
- (viii) Identify the hormones responsible for increasing gluconeogenesis in the liver during prolonged starvation?
- | | |
|--------|------------|
| a) TSH | b) Insulin |
|--------|------------|

- c) Thyroxine
 (ix) The diseases caused due to protein deficiency?
 a) Anaemia
 c) Hypothyroidism
 (x) The first person to discover vitamin
 a) Jenner
 c) Mallanby
 (xi) Pick the most essential nutrient for a woman during her initial stages of pregnancy to prevent birth defects?
 a) Thiamin
 c) Vitamin C
 (xii) The scientific name of Vitamin K is
 a) Ascorbic acid
 c) Tocopherol
 (xiii) Plasma albumin performs the following functions
 a) Osmotic
 c) Nutritive
 (xiv) Write an example of keto hexose-
 a) Galactose
 c) Mannose
 (xv) Molisch test is used to predict-
 a) Protein
 c) Carbohydrate
- d) Glucagon
 b) Kwashiorkor
 d) All of these
 b) Funk
 d) Calvin
 b) Folic acid
 d) Vitamin E
 b) Phytonadione
 d) Pantothenic
 b) Transport
 d) All of them
 b) Glucose
 d) Fructose
 b) Lipid
 d) All of these

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Define MUCOPOLYSACCHARIDES with example. (3)
 3. Differentiate between fat soluble vitamin & water soluble vitamin with example (3)
 4. Difference between essential and non essential fatty acid (3)
 5. Define BMR and its significance. (3)
 6. Formulate Respiratory quotient of foodstuffs (3)

OR

Speculate Net protein utilization (NPU) and its significance (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Define sodium potassium pump and its mechanism of action. (5)
 8. Illustrate the importance of serum enzymes in the diagnosis of MI disease (5)
 9. Differentiate between glycemic load and index (5)
 10. Explain the role of Fibers in nutrition (5)
 11. Give examples Glycogen storage disease (5)
 12. Discuss the protein-energy malnutrition with special reference to kwashiorkor (5)

OR

Justify that citric acid cycle is the final common metabolic pathway for the oxidation of foodstuff (5)
