BRAINWARE UNIVERSITY

Term End Examination 2023

Programme – B.Pharm-2019/B.Pharm-2020/B.Pharm-2021/B.Pharm-2022

Course Name – Biochemistry/Biochemistry – Theory

Course Code - BP203T

(Semester II)

Full Marks : 75 **Time : 3:0 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 20=20

1. *Choose the correct alternative from the following :*

(i) Report the formula of Glucose

a) C6H1205 b) C5H11O6
c) C6H12O6 d) C5H10O6

(ii) Name the enzyme which catalyzes the oxidation-reduction reaction?

a) Transaminase b) Glutamine synthetase
c) Phosphofructokinase d) oxidoreductase

(iii) Indicate the component which is not a part of RNA?

a) Thymine b) Adenine
c) Guanine d) Cytosine

(iv) Identifky the correct pH of Urine

a) 4.5-8.0 b) 7.4-7.5
c) 45113 d) 45177

(v) Select the correct level of fasting blood sugar is

a) 60-120 mg/dl b) 70-100 mg/dl
c) 60-150 mg/dl d) 90-150 mg/dl

(vi) Indicate the iodine value of olive oil

a) 46 b) 88
c) 66 d) 90

(vii) Recognize the component which is not a part of phospholipid?

a) Phosphate b) Alcohol
c) Glycerol d) Protein

(viii) Describe the full form of ATP

a) adenosine tri phosphate
b) adenosine di phosphate
c) adenine tri phosphate
d) adenosine triose phosphate

(ix) Define Gluconeogenesis

a) glucose to glycogen
b) non carbohydrate to glucose
c) glucose to glycerol
d) All of these.

(x) Describe Glycogenolysis

a) break down of glucose
b) break down of glycogen
c) glucose to glycogen
d) Fats to glycogen

(xi) Identify the chemical nature of an enzyme?

a) Vitamin
b) Lipid
c) Carbohydrate
d) Protein

(xii) Name the causetive agent of Athreosclerosis in artery

a) LDL
b) VLDL
c) HDL
d) Cholesterol

(xiii) State the number of double bond present in arachidonic acid is

a) 1
b) 2
c) 4
d) 6

(xiv) Peptide bond can be chemically identified as

a) Covalent bond
b) Ionic bond
c) Metallic bond
d) Hydrogen bond

(xv) Choose the full form of VLDL

a) Very low density lipoprotein
b) Very liquid density lipid
c) very low density lipid
d) Very liquid density lipoprotein

(xvi) Predict which organ doesn\'t work right in a person who has type 1 diabetes

a) pituitary gland
b) pancreas
c) adrenal glands
d) kidneys

(xvii) Write the first law of thermodynamics?

a) Energy can neither be destroyed nor created
b) Energy cannot be 100 percent efficiently transformed from one type to another
c) All living organisms are composed of cells
d) Input of heat energy increases the rate of movement of atoms and molecules

(xviii) Write the name of the pathway for glucose synthesis by non-carbohydrate precursors?

a) Glycogenesis
b) Glycolysis
c) Gluconeogenesis
d) Glycogenolysis

(xix) Choose the hormone which is secreted in an emergency or in stress condition?

a) Epinephrine
b) Glucagon
c) Insulin
d) Adrenaline

(xx) Name the enzyme secreted by pancreas?

a) Pepsin
b) Chymotrypsin
c) Trypsin
d) Alcohol dehydrogenase

Group-B

(Short Answer Type Questions) 5 x 7=35

Answer all the Questions

2. Describe Briefly disorder of protein metabolism. (5)
3. Discuss about glycogen storage disease(GSD). (5)
4. Explain the terms; reversible inhibition and irreversible inhibition. (5)

5. Describe briefly classification of amino acid. (5)
6. Describe the degradation pathway of purine and pyrimidine. (5)
7. Write about "Redox couples" ? Explain briefly about Positive and negative redox potential. (5)

OR

Write about high energy Compounds? Write a short note on Pyrophosphates under the high energy compounds. (5)

8. Explain the Biological Significance of cAMP. (5)

OR

Explain about Biological Significance of Cholesterol. (5)

Group-C

(Long Answer Type Questions) 10 x 2=20

Answer all the Questions

9. Define "lipids". Classify them and give their biological significance. (10)
10. Explain in brief about HMP shunt and its importance and Illustrate the Structure and functions of messenger RNA. (10)

OR

Explain in brief about classification of enzyme. Explain in brief about enzyme inhibition. (10)

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