



BRAINWARE UNIVERSITY
Term End Examination 2020 - 21
Programme – Bachelor of Physiotherapy
Course Name – Medical Biochemistry
Course Code - BPT103

Semester / Year - Semester I

Time allotted : 75 Minutes

Full Marks : 60

[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 60=60

1. (Answer any Sixty)

(i) What is the name of the drug which inhibits Na^+/K^+ pump across the cell membrane?

- | | |
|------------|----------------|
| a) Taxol | b) Vinblastine |
| c) Ouabain | d) Quinone |

(ii) Which of the following polysaccharide employed for the assessment of kidney function:

- | | |
|--------------------|-------------|
| a) Albumin | b) Glycogen |
| c) Keratansulphate | d) Inulin |

(iii) Sucrose is a made up of two moiety :

- | | |
|--------------------------|-------------------------|
| a) Glucose and Galactose | b) Glucose and Fructose |
| c) Lactose and Fructose | d) None of these |

(iv) Name a glycosidic antibiotic used for tuberculosis:

- | | |
|-----------------|------------------|
| a) Streptomycin | b) Azithromycin |
| c) Penicillin | d) Glucovanillin |

(v) The carbon atom involved in osazon formation :

- | | |
|------------|------------|
| a) 1 and 2 | b) 3 and 4 |
|------------|------------|

c) 2 and 3

d) 5 and 6

(vi) The α and β cyclic forms of D –glucose are referred as:

a) Epimers

b) Anomers

c) Tautomer

d) Both Epimers and Anomers

(vii) What is the site for gluconeogenesis

a) Liver

b) Blood

c) Muscles

d) Brain

(viii) Which of the following are major sites for glycogen storage

a) Adipose tissue

b) Bones

c) Muscle and liver

d) Kidney and liver

(ix) All test are positive for lactose except:

a) Benedict test

b) Barfoed's test

c) Fehling's test

d) Osazon test

(x) In Benedict test we can differentiate:

a) Glucose and Maltose

b) Glucose and Sucrose

c) Fructose and Glucose

d) None of these

(xi) Chitin consists of:

a) N-acetyl muramic acid

b) N-acetyl glucosamine

c) D-glucose unit

d) N-acetyl muramic acid and N-acetyl glucosamine

(xii) Name of a protein derivative helps in blood clotting:

a) γ carbonic anhydrase

b) γ carboxy glutamic acid

c) Oxytosin

d) Aspartame

(xiii) Heat coagulation test is commonly used for:

- a) Glutelin in urine
- b) Albumin in urine
- c) Immunoglobulins
- d) None of these

(xiv) Parkinson's Disease is linked with decreased synthesis of:

- a) Serotonin
- b) Arginine
- c) Dopamine
- d) None of these

(xv) Valine is classified as:

- a) Hydrophobic amino acid
- b) Hydrophilic amino acid
- c) Positively charged amino acid
- d) Hydrophobic aliphatic amino acid

(xvi) Hemoglobin is an example of

- a) Secondary Protein
- b) Tertiary protein
- c) Quaternary Protein
- d) Polypeptide

(xvii) Biuret test is used to detect:

- a) Phenol group
- b) Peptide linkages in amino acids
- c) ?Amino acids
- d) All of these

(xviii) The lock and Key hypothesis attempts to explain the mechanism of:

- a) Vacuole formation
- b) Pinocytosis
- c) Sharing of electrons
- d) Enzyme specificity

(xix) Which of the following is not a fat-soluble vitamin

- a) Vitamin D
- b) Vitamin K
- c) Vitamin C
- d) Vitamin A

(xx) Megaloblastic anemia is caused due to deficiency of _____.

- a) Cobalamin
- b) Pyridoxine

c) Niacin

d) Folic acid

(xxi) Name the structure analog of vitamin K, which is used as anticoagulant?

a) Warfarin

b) Tocopherol

c) Ergocalciferol

d) β -carotene

(xxii) Scurvy is due to the deficiency of

a) Vitamin A

b) Vitamin B

c) Vitamin D

d) Vitamin C

(xxiii) Pernicious Anemia is caused by deficiency of:

a) Vitamin B2

b) Vitamin B12

c) Vitamin B6

d) Vitamin B5

(xxiv) Pellagra is caused due to

a) Niacin

b) Thiamin

c) cobalamin

d) Riboflavin

(xxv) Which of the following is NOT an example of an electrolyte:

a) Creatinine

b) Potassium

c) Calcium

d) Magnesium

(xxvi) Enzymes functions as:

a) Organic catalysts

b) Inorganic Catalysts

c) Inhibitors

d) Phosphodiester bond

(xxvii) Adenine bonds with.....

a) Guanine

b) Cytosin

c) Uracil

d) Thymine

(xxviii) Watson & Crick discover the DNA, They called it is:

- a) Helical & Double stranded
- b) Double-helix
- c) Twisted-ladder
- d) Double stranded

(xxix) Synthesis of fatty acid takes place when

- a) fatty acid are plentiful
- b) Carbohydrate is plentiful
- c) carbohydrate and energy are plentiful
- d) none of these

(xxx) VLDL stands for

- a) Very low density lipid
- b) Very Low Density liquid
- c) Very Low Density Lipoprotein
- d) None of these

(xxxii) What is the best description of blood?

- a) Sol
- b) Foam
- c) Solution
- d) Aerosol

(xxxiii) All the monosaccharides are optically active except:

- a) Glyceraldehyde
- b) Fructose
- c) Arabinose
- d) Dihydroxyacetone

(xxxiv) Which one of the following is an acidic amino acid?

- a) Palmitic acid
- b) Aspartic acid
- c) Pyruvic acid
- d) Lysine

(xxxv) Hemoglobin can be qualitatively detected by:

- a) Benedict's test
- b) Neumann's test
- c) Rothera's test
- d) Benzidine test

(xxxvi) An exopeptidase is:

- a) Elastase
- b) Chymotrypsin

c) Trypsin

d) Carboxy peptidase

(xxxvi) Serum amylase is highly raised in:

a) Diabetes mellitus

b) Liver disorders

c) Acute pancreatitis

d) Acute pancreatitis

(xxxvii) Which is the fat soluble vitamin?

a) Riboflavin

b) Vitamin K

c) Folic acid

d) Vitamin C

(xxxviii) Electrophoresis is based on the principle of:

a) Migration of charged particles in an electric field

b) Dialysis

c) Osmosis

d) Movement of particles between stationary phase & moving phase

(xxxix) Zn^{+2} is the inorganic cofactor for enzyme:

a) Carbonic acid

b) Carbonic anhydrase

c) Phosphatase

d) Chymotrypsin

(xl) Vitamins are essential to the survival of organisms because vitamins usually functions as:

a) Substrate

b) Nucleic acid

c) Co-enzyme

d) Nucleosides

(xli) In Malaria which organ effects most?

a) Heart

b) Brain

c) Liver

d) Small intestine

(xlii) Thin blood smear for malaria parasites

a) Use to determine if parasite is present

b) Use to confirm the Plasmodium species

present

c) Use to confirm the Culex species present d) None of them

(xlvi) Which of the following cells may develop in sites other than the bone marrow?

a) Monocyte

b) Lymphocyte

c) Megakaryocyte

d) Neutrophil

(xlvii) Allergic reactions are frequently associated with an increase in the presence of:

a) Lymphocytes

b) Neutrophils

c) Monocytes

d) Eosinophils

(xlviii) Which of the following tissues is the least hydrated?

a) nervous tissue

b) Muscle tissue

c) Bone tissue

d) Adipose tissue

(xlix) International normalized ratio is calculated from:

a) Prothrombin time

b) Thromboplastin time

c) Active partial thromboplastin time

d) Clotting factors

(l) The red color of hemoglobin is due to:

a) Heme

b) Alfa globin

c) Beta globin

d) All of them

(li) Which is the following lipid act as a lungs surfactant

a) Phosphatidyl choline

b) Ceramide

c) Cholesterol ester

d) All of these

(lii) Disorder of urea cycle leads to

a) Hyperammonaemia

b) Hypovolemia

c) Hypertrophy

d) All of these

(l) Keratin is a

a) Nucleoprotein

b) fibrous protein

c) Metalloprotein

d) Glycoprotein

(li) The chemical name of ajinomoto is

a) Monosodium glutamate

b) Monosodium glycine

c) Mono sodium carbamate

d) None of these

(lii) Foamy urine is associated with:

a) Jaundice

b) Anemia

c) Proteinuria

d) None of these

(liii) In acute pancreatitis which serum enzyme elevates:

a) Albumin

b) Amylase

c) Aldolase

d) Alkaline phosphatase

(liv) Creatine phosphokinase is related to

a) Liver diseases

b) early marker of myocardial infarction

c) Jaundice

d) cancer

(lv) Cholesterol is synthesized from:

a) Triglyceride

b) Acetyl CoA

c) Fatty acid

d) . Bile

(lvi) When the concentration of Na⁺ in the ECF decreases _____.

a) a person experiences an increased thirst

b) osmoreceptors are stimulated

c) there is an increase in the level of aldosterone

d) more increased release of Aldosteron

(lvii) The condition in which sodium levels are too low is referred to as _____.

- a) Aldosteronism
- b) hyponatremia
- c) Cushing's disease
- d) hyperkalemia

(lviii) Which of the following has the highest calorific value ?

- a) Fats
- b) Proteins
- c) Vitamins
- d) carbohydrate

(lix) The mineral in the body which helps in absorption of nutrients and maintain the balance of fluid in the body is

- a) sodium
- b) iodine
- c) chromium
- d) chlorine

(lx) The incorporation or conversion of simple food into complex materials constituting the body is called

- a) digestion
- b) assimilation
- c) dissimilation
- d) absorption