



# BRAINWARE UNIVERSITY

**Term End Examination 2021 - 22**

**Programme – Bachelor of Science in Medical Lab Technology**

**Course Name – General Biochemistry**

**Course Code - BMLT202**

**( Semester II )**

**Time allotted : 1 Hrs.15 Min.**

**Full Marks : 60**

[The figure in the margin indicates full marks.]

## Group-A

(Multiple Choice Type Question)

1 x 60=60

*Choose the correct alternative from the following :*

- (1) Which of the following are the major functions of Carbohydrates?
 

a) Storage	b) Structural framework
c) Transport Materials	d) Both Storage and structural framework
- (2) Which of the following monosaccharides is the majority found in the human body?
 

a) D-type	b) L-Type
c) LD-types	d) None of the above
- (3) The power house of cell is called
 

a) Cell wall	b) Mitochondria
c) Ribosomes	d) Nucleus
- (4) Name the pathway for glucose synthesis by non-carbohydrate precursors
 

a) Glycogenesis	b) Gluconeogenesis
c) Glycogenolysis	d) Others
- (5) Which class of carbohydrates is considered as non-sugar?
 

a) Monosaccharides	b) Polysaccharides
c) Disaccharides	d) Oligosaccharides
- (6) Hemoglobin is a
 

a) Reproductive pigment	b) Carbohydrate
c) Fat	d) Respiratory pigment
- (7) Name the major storage form of carbohydrates in animals
 

a) Cellulose	b) Glycogen
c) Chitin	d) Starch
- (8) Which of the following polysaccharide employed for the assessment of kidney function
 

a) Albumin	b) Glycogen
c) Keratan sulphate	d) Inulin
- (9) Sucrose is a made up of two moiety
 

a) Glucose and Galactose	b) Glucose and Fructose
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- c) Lactose and Fructose  
d) None of the above
- (10) Name a glycosidic antibiotic  
a) Streptomycin  
b) Azithromycin  
c) Penicillin  
d) Glucovanillin
- (11) The  $\alpha$  and  $\beta$  cyclic forms of D –glucose are referred as:  
a) Epimers  
b) Anomers  
c) Tautomer  
d) Both (a) and (b)
- (12) Ribose and deoxyribose differ in structure around a single care namely,  
a) C1  
b) C2  
c) C3  
d) C4
- (13) What is the site for gluconeogenesis majorly  
a) Liver  
b) Blood  
c) Muscles  
d) Brain
- (14) Name the pathway for glucose synthesis by non-carbohydrate precursors:  
a) Glycogenesis  
b) Glycolysis  
c) Glycogenolysis  
d) Gluconeogenesis
- (15) Which of the following are major sites for glycogen storage  
a) Adipose tissue  
b) Bones  
c) Muscle and liver  
d) Kidney and liver
- (16) Name the hormone which is secreted in an emergency or in stress condition  
a) Insulin  
b) Epinephrine  
c) Glucagon  
d) Melanin
- (17) Sorbitol and Mannitol are:  
a) Optical isomers  
b) Enomers  
c) Epimers  
d) Stereoisomers
- (18) 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
- (19) In polysaccharide, monosaccharide are joined by:  
a) Peptide bond  
b) Glucose bond  
c) Glycosidic bond  
d) Covalent bond
- (20) Which is not a homopolysaccharide  
a) Starch  
b) Heparin  
c) Glycogen  
d) Cellulose
- (21) Choose a sugar abundantly present in honey:  
a) Maltose  
b) Fructose  
c) Ribulose  
d) Sucrose
- (22) Seliwanoff's test is used for the identification of:  
a) Glucose and Fructose  
b) Glucose and Lactose  
c) Glucose and Maltose  
d) None of the above
- (23) Glucagon helps to accelerate:  
a) Glycogenolysis  
b) Glycogenesis  
c) Neoglucogenesis  
d) None of the above
- (24) Diabetes is caused due to:  
a) Hypoglycemia  
b) Hyperglycemia  
c) Galactosemia  
d) Hyponatremia
- (25) Lactulose is disaccharide comprised of :

- a) Glucose & Galactose  
c) Sucrose & Fructose
- (26) Artificial sweetener is:  
a) Sucralose  
c) Cellobiose
- (27) Storage protein includes:  
a) Glutelin  
c) Immunoglobulins
- (28) Which of the following amino sugar are present in the bacterial cell wall  
a) N-acetylmuramic acid  
c) Azide
- (29) Which of the following is non-essential amino acid?  
a) Lysine  
c) Serine
- (30) Which of these amino acids are essential for infants?  
a) Methionine  
c) Valine
- (31) The following non-protein amino acid:  
a) Ornithine  
c) Histidine
- (32) Protein is Polymer of:  
a) Peptides  
c) Carbohydrates
- (33) Name of a imino acid:  
a) Histidine  
c) Tyrosine
- (34) The metabolite excreted in alkaptonuria is:  
a) Phenylalanine  
c) Alkaline phosphatase
- (35) Which of the following is fibrous amino acid:  
a) Collagen  
c) Tyrosine
- (36) Which of the following is Hydrophilic amino acid:  
a) Lysin  
c) Proline
- (37) What is an apoenzyme?  
a) It is a protein portion of an enzyme active conjugated enzyme  
c) It is a complete, biologically
- (38) Hydrolases: catalyze the \_\_\_ of various bonds  
a) Oxidation  
c) Isomerization
- (39) Deficiency of which vitamin causes Beri-Beri?  
a) Vitamin B12  
c) Vitamin B6
- (40) Megaloblastic anemia is caused due to deficiency of \_\_\_\_\_.  
a) Cobalamin
- b) Galactose & Fructose  
d) Fructose and Maltose
- b) Lactulose  
d) Hyaluronic acid
- b) Albumin  
d) None of these
- b) Aminoglycoside  
d) Sialic acid
- b) Leucine  
d) Methionine
- b) Arginine and Histidine  
d) Lysine and Leucine
- b) Proline  
d) Lysin
- b) Amino acids  
d) Fatty acids
- b) Tryptophan  
d) Proline
- b) Bilirubin  
d) None of the above
- b) Chitin  
d) Pepsin
- b) Leucine  
d) Glycine
- b) It is a non-protein group  
d) It is a prosthetic group
- b) Hydrolysis  
d) None of the above
- b) Vitamin B2  
d) Vitamin B1
- b) Pyridoxine

- c) Niacin  
d) Folic acid
- (41) Name the vitamin which functions as hormone as well as visual pigment?  
a) Thiamine  
b) Riboflavin  
c) Retinol  
d) Folic acid
- (42) Which of the following vitamin serves as a hormone precursor?  
a) Vitamin C  
b) Vitamin A  
c) Vitamin K  
d) Vitamin D
- (43) Name the structure analog of vitamin K, which is used as antagonist?  
a) Warfarin  
b) Tocopherol  
c) Ergocalciferol  
d)  $\beta$ -carotene
- (44) Which of the following is NOT an endocrine gland?  
a) Hypothalamus  
b) Pituitary  
c) Parathyroid  
d) Sweat glands.
- (45) Mark the one, which is NOT the precursor of the hormone?  
a) Amino acids  
b) Cholesterol  
c) Phospholipids  
d) Proteins
- (46) Sex hormone is a \_\_\_\_\_  
a) Water soluble hormone  
b) Fat soluble hormone  
c) Protein hormone  
d) None of the above
- (47) Name the gland, which releases Neurohormone  
a) Hypothalamus  
b) Pituitary  
c) Thyroid  
d) Pancreas
- (48) Name the energy source of the brain during starvation?  
a) Fat  
b) Ketone bodies  
c) Protein  
d) Lipid
- (49) Lipoprotein core contain  
a) VLDL  
b) Triglyceride  
c) Phospholipid  
d) All of these
- (50) What is the outcome of the accumulation of acetyl-CoA in the mitochondria of the liver?  
a) It is used as an energy source  
b) It has broken down in to free fatty acids  
c) It gets converted to oxaloacetate  
d) It forms ketone bodies
- (51) Which of the following is NOT an example of an electrolyte:  
a) Creatinine  
b) Potassium  
c) Calcium  
d) Magnesium
- (52) A nucleotide is composed of  
a) A base+sugar  
b) A base+a sugar+Phosphate  
c) A base+a phosphate  
d) None of these
- (53) Which of the following is not a researched means of delivering therapeutic DNA for gene therapy?  
a) Polymers  
b) Liposomes  
c) Bacteria  
d) Viruses
- (54) Watson & Crick discover the DNA, They called it is:  
a) Helical & Double stranded  
b) Double-helix  
c) Twisted-ladder  
d) Double stranded
- (55) HDLs are synthesized in  
a) Blood  
b) Liver  
c) Intestine  
d) Pancreas

- (56) Cholesterol is the precursor of
- a) Steroid hormones
  - b) Vitamin A
  - c) Bile salts
  - d) Both (a) and (c)
- (57) 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
- (58) Which of the following amino acids is considered as both ketogenic and glucogenic?
- a) Valine
  - b) Tryptophan
  - c) Lysine
  - d) None of these
- (59) Transamination reaction in amino acid synthesis is catalyzed by enzyme
- a) Nitric oxide synthase
  - b) Decarboxylase
  - c) Aminotransferase
  - d) Glutamate decarboxylase
- (60) A tripeptide has \_\_\_\_\_
- a) 3 amino acids and 1 peptide bond
  - b) 3 amino acids and 2 peptide bonds
  - c) 3 amino acids and 3 peptide bonds
  - d) 3 amino acids and 4 peptide bonds