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[EHS207] Lipids that contain esters of fatty acids and glycerol are called \_\_\_\_\_

Triacylglycerol

[EHS207] The enzyme that catalysis the phosphorylation of glucose to glucose-6-phosphate in the glycolytic pathway is \_\_\_\_\_\_

Glucokinase

FBQ1: The cell was discovered by \_\_\_\_\_\_\_\_\_\_ in 1665 year while examining a thin slice of cork under the microscope

Answer: \*Robert Hooke\*

FBQ2: The cell organelle that is involved in the degradation of worn-out cells and macromolecules is \_\_\_\_\_\_\_\_\_\_

Answer: \*Lysosome\*

FBQ3: The lipid component that forms the hydrophilic and hydrophobic regions of the plasma membrane is \_\_\_\_\_\_\_\_\_\_

Answer: \*Phospholipids\*

FBQ4: The transportation of materials across the plasma membrane is by \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_ transport

Answer: \*Passive and Active\*

FBQ5: A solution whose pH is above 7 is said to be \_\_\_\_\_\_\_\_\_\_ solution

Answer: \*Basic\*

FBQ6: A solution that resist changes in pH of a solution when an acid or a base is added to it is \_\_\_\_\_\_\_\_\_\_

Answer: \*Buffer\*

FBQ7: Simple sugar also known as monosaccharide having six (6) carbon atoms are classified as \_\_\_\_\_\_\_\_\_\_

Answer: \*Hexoses\*

FBQ8: An example of epimer of glucose is \_\_\_\_\_\_\_\_\_\_

Answer: \*D-Mannose\*

FBQ9: An amino acid is linked to another amino acid in proteins by \_\_\_\_\_\_\_\_\_\_

Answer: \*Peptide bond\*

FBQ10: \_\_\_\_\_\_\_\_\_\_are the amino acids that are not synthesized in the body but are required and must be provided to meet the body’s need

Answer: \*Essential amino acids\*

FBQ11: Arachidic acid is an example of \_\_\_\_\_\_\_\_\_\_fatty acids

Answer: \*Unsaturated\*

FBQ12: Omega 3 and Omega 6 are examples of \_\_\_\_\_\_\_\_\_\_fatty acids

Answer: \*Polyunsaturated\*

FBQ13: The nucleic acid that lacks ribose sugar is the \_\_\_\_\_\_\_\_\_\_

Answer: \*DNA\*

FBQ14: The double helical structure of the DNA (Deoxyribonucleuc acid was proposed by \_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_

Answer: \*Watson and Crick\*

FBQ15: The enzyme that initiates the breakdown of carbohydrates in form of starch in the month is \_\_\_\_

Answer: \*Ptylin\*

FBQ16: The first reaction stage in the glycolysis which involves the phosphorylation of glucose to glucose-6-phosphate is catalyzed by \_\_\_\_\_\_\_\_\_\_enzyme

Answer: \*Glucokinase\*

FBQ17: In a state where oxygen is not lacking, glucose is broken down into \_\_\_\_\_\_\_\_\_\_in a series of enzyme catalyzed reactions

Answer: \*Pyruvate\*

FBQ18: The Krebs cycle takes place in the \_\_\_\_\_\_\_\_\_\_of eukaryotic organisms

Answer: \*Mitochondrion matrix\*

FBQ19: \_\_\_\_\_\_\_\_\_\_total number of ATP is generated in the form of energy from the tricarboxylic acid (TCA) cycle

Answer: \*10\*

FBQ20: The product formed in the first step reaction of the critic acid cycle is \_\_\_\_\_\_\_\_\_\_

Answer: \*Citrate\*

FBQ21: The breakdown of protein molecules by proteolytic digestive enzymes is called \_\_\_\_\_\_\_\_\_\_

Answer: \*Proteolysis\*

FBQ22: The urea cycle occurs first in \_\_\_\_\_\_\_\_\_\_ and then further occurs in cytosol of the liver

Answer: \*Mitochondria\*

FBQ23: The enzymes that digest lipids are generally called \_\_\_\_\_\_\_\_\_\_

Answer: \*Lipase\*

FBQ24: Beta (β) oxidation of fatty acids is the oxidation of fatty acids to \_\_\_\_

Answer: \*Acetyl-Co A\*

FBQ25: Vitamin B complex and Vitamin C are classes of \_\_\_\_\_\_\_\_\_\_Vitamin

Answer: \*Water soluble\*

FBQ26: Beriberi is a deficiency associated with \_\_\_\_\_\_\_\_\_\_

Answer: \*Vitamin B\*

FBQ27: The class of vitamins that act also act as co-enzymes are \_\_\_\_\_\_\_\_\_\_

Answer: \*Water-soluble vitamins\*

FBQ28: Vitamins A, D, E and K are all examples of \_\_\_\_\_\_\_\_\_\_vitamins.

Answer: \*Fat-soluble\*

FBQ29: Vitamin E exists in the diet as compounds called \_\_\_\_\_\_\_\_\_\_

Answer: \*Tocopherol\*

FBQ30: Trace minerals are minerals that are required in the body in less than \_\_\_\_\_\_ mg

Answer: \*100\*

FBQ31: Sodium, magnesium and calcium are examples of \_\_\_\_\_\_\_\_\_\_minerals

Answer: \*Macro\*

FBQ32: Apart from the liver, the kidney and the \_\_\_\_\_\_\_\_\_\_are the other organs involved in detoxification process of harmful compounds in the body

Answer: \*Intestines\*

FBQ33: Oxidation, reduction and hydrolysis belongs to \_\_\_\_\_\_\_\_\_\_phase of detoxification

Answer: \*Phase 1\*

FBQ34: In detoxification process, the reaction that involves the coupling of foreign substances after undergoing oxidation, reduction and hydrolysis is called \_\_\_\_\_\_\_\_\_\_ reaction

Answer: \*Conjugation\*

FBQ35: The purpose of detoxification is to convert toxic harmful substances to \_\_\_\_\_\_\_\_\_\_ harmful substances

Answer: \*Less\*

FBQ36: The cell organelle that contains antioxidant enzymes which are involved in detoxification of radicals is \_\_\_\_\_

Answer: \*Peroxisomes\*

FBQ37: The vitamin that promotes bone mineralization is \_\_\_\_\_\_\_\_\_\_

Answer: \*Vitamin D\*

FBQ38: Nucleic acid are located in the \_\_\_\_\_\_\_\_\_\_ of living organisms

Answer: \*Nucleus\*

FBQ39: The transfer of amino group from one amino acid to another is called \_\_\_\_\_\_\_\_\_\_

Answer: \*Transamination\*

FBQ40: There are \_\_\_\_\_number of carbon atoms in Myristic fatty acid

Answer: \*Fourteen\*

FBQ41: The principal informational macromolecule that translates and transfer genetic information is the \_\_\_\_\_\_\_\_\_\_

Answer: \*Deoxyribonucleic acid\*

FBQ42: Pyruvate dehydrogenase complex enzyme is made up of \_\_\_\_\_\_\_\_\_\_number of enzymes

Answer: \*Three\*

FBQ43: One of the toxicity associated with Iron (Fe) is Diabetes mellitus. True or False?

Answer: \*False\*

FBQ44: There are \_\_\_\_\_number of carbon atoms in Arachidic fatty acid

Answer: \*Twenty\*

FBQ45: One of the symptoms of deficiency of essential amino acid is Growth retardation? True or False

Answer: \*True\*

FBQ46: During β-oxidation of fatty acid, the first reaction which involves the activation of fatty acids takes place in \_\_\_\_\_\_\_\_\_\_organelle of the cell

Answer: \*Cytosol\*

FBQ47: Transamination reaction is a reversible reaction True or False?

Answer: \*True\*

FBQ48: There are \_\_\_\_\_\_\_\_\_\_number of carbon atoms in Palmitic fatty acid

Answer: \*Sixteen\*

FBQ49: The position of the double bond in palmitoleic acid is at \_\_\_\_\_ carbon position

Answer: \*Nine\*

FBQ50: The pH of a solution with hydrogen ion (H+) concentration of 4.2 x 10-3 is \_\_\_\_\_

Answer: \*2.38\*

Multiple Choice Questions (MCQs):

MCQ1: Eukaryotes are different from prokaryotes because they are organisms with \_\_\_\_\_

Answer: Distinct nucleus and but no nuclear membrane

MCQ2: The end product of glycolytic pathway in aerobic state is \_\_\_\_\_\_

Answer: Pyruvate

MCQ3: \_\_\_\_\_\_ hydrogen bonds pair the adenine and thymine bases in deoxyribonucleic acid (DNA) structure

Answer: One

MCQ4: which among these represent amino acids is a glucogenic amino acid \_\_\_\_\_\_

Answer: Tryptophan

MCQ5: Maltose on condensation produces \_\_\_\_\_ and \_\_\_\_\_ monosaccharide sugars

Answer: Glucose and glucose

MCQ6: \_\_\_\_\_\_\_\_ cell organelle is referred to as the power house of the cell

Answer: Nucleus

MCQ7: A high pH value is an indication of \_\_\_\_\_ hydrogen ion

Answer: High

MCQ8: Omega 3 and Omega 6 are also known as \_\_\_\_ fatty acids

Answer: Essential

MCQ9: Which of these enzymes hydrolyzes the breakage of α-1, 4 linkage in starch\_\_\_\_\_\_\_

Answer: Lipase

MCQ10: The minerals that are needed in large amount in the body are called \_\_\_\_\_ minerals

Answer: Trace

MCQ11: The process of detoxification which involves conversion of hydrocarbons to their corresponding alcohol is called \_\_\_\_\_

Answer: Oxidation

MCQ12: \_\_\_\_\_\_\_ is the deficiency associated with Vitamin C

Answer: Beriberi

MCQ13: Reactions of the urea cycle takes place in \_\_\_\_\_\_ and \_\_\_\_\_\_ of the liver

Answer: Mitochondria and cytosol

MCQ14: Vitamins that are easily absorbed in the body are \_\_\_ vitamins

Answer: Fat soluble

MCQ15: One of the things that makes plant cell different from animal cell is the present of \_\_\_\_\_ which is present in plant cell but absent in animal cell

Answer: Chloroplast

MCQ16: Oxidative phosphorylation takes place in \_\_\_\_\_?

Answer: Nucleus

MCQ17: The digestive enzymes that hydrolyzes protein are called \_\_\_\_\_

Answer: Tryrosinase

MCQ18: The urea cycle shows the complete degradation of\_\_\_\_\_\_

Answer: Uric acid

MCQ19: Acidosis is a condition in which the blood plasma pH is \_\_\_\_\_\_

Answer: Fast

MCQ20: \_\_\_\_ vitamins also act as a co-enzyme

Answer: A

MCQ21: DNA differs from RNA because of \_\_\_\_\_\_

Answer: It produces protein

MCQ22: The branch of biochemistry that involves manipulation of DNA to improve drug research and solve health problem is \_\_\_\_\_\_

Answer: Toxicology

MCQ23: \_\_\_\_\_ is an example of epimer of glucose

Answer: Mannose

MCQ24: Which of these proteins is more water soluble\_\_\_\_

Answer: Albumin

MCQ25: Which of these makes lipids different from carbohydrates \_\_\_\_\_\_

Answer: Lipids digestion begins in the mouth

MCQ26: Which of these are esters of fatty acids \_\_\_\_\_\_\_

Answer: Triglycerides

MCQ27: \_\_\_\_\_ are substances that resist changes in pH

Answer: Enzymes

MCQ28: The breakdown of large molecules to smaller molecules in the living system of organisms is called \_\_\_\_\_\_

Answer: Amphibolism

MCQ29: Biochemistry is the study of \_\_\_\_\_\_

Answer: Living cell

MCQ30: An aggregation of cell forms \_\_\_\_\_

Answer: Tissue

MCQ31: One major function of the plasma membrane is \_\_\_\_\_\_

Answer: it control the activity of the cell

MCQ32: The branch of biochemistry that studies the adverse effects of foreign substances on living organisms is \_\_\_\_\_\_

Answer: Toxicology

MCQ33: \_\_\_\_\_ is the end product of beta (β) oxidation

Answer: Carbon (iv) oxide

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Answer: Anaplerosis

MCQ35: The major site for the breakdown of harmful substances is \_\_\_\_\_\_\_\_

Answer: Liver

MCQ36: Water is referred to as a weak electrolytes because it can undergo partial dissociation into \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_

Answer: Hydrogen ion and hydroxide ion

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MCQ38: In preparing a buffer, \_\_\_\_\_\_\_\_ equation is used to calculate the concentrations of acid and base components of the buffer

Answer: Equilibrium equation

MCQ39: \_\_\_\_\_\_\_\_ is also known as animal starch

Answer: Glucose

MCQ40: \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_ linkages are present in linear and branching points of glycogen

Answer: α-1,4 and α-1,6

MCQ41: Isomers differing as a result of variations in the configurations of OH and H on carbon atoms 2, 3 and 4 of glucose are called \_\_\_\_\_\_\_\_

Answer: Epimers

MCQ42: Amino acids in solution at neutral pH which are dipolar ions are also called \_\_\_\_\_\_\_\_

Answer: Radicals

MCQ43: The abbreviation GlN represents \_\_\_\_\_\_\_\_ amino acids

Answer: Glycine

MCQ44: Proteins that yield only amino acids with no other major organic or inorganic hydrolysis products are called \_\_\_\_\_\_\_\_ proteins

Answer: Simple

MCQ45: The position of double bond in oleic acid is at carbon position number \_\_\_\_\_\_\_\_

Answer: 12

MCQ46: \_\_\_\_\_\_\_\_ are hydrolytic products of simple and compound lipids

Answer: Simple

MCQ47: During digestion of carbohydrates in the mouth, amylase requires\_\_\_\_\_\_\_\_ ion for its activation

Answer: Chloride

MCQ48: The Krebs’s cycle produces \_\_\_\_\_\_\_\_ number of NADH and \_\_\_\_\_\_\_\_ number of FADH

Answer: 3 and 1

MCQ49: The required daily allowance of Vitamin C is \_\_\_\_\_\_\_\_ per day

Answer: 120 mg

MCQ50: The required daily allowance of Zinc for men and women respectively is \_\_\_\_\_\_\_\_

Answer: 11 and 8 mg

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