**Question of chapter : Ch. 3: The Molecules Of Cell**

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**لا تنسوني من دعواتكم لي بالتوفيق و النجاح**

1. Organic Compound (Molecule) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

has unique properties that depend upon the size and shape of the molecule
in which, carbon can bound to four other atoms by gaining electrons
in which, carbon can bound to five other atoms by sharing electrons
all of the above

1. Methane \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

has four lines in its formula, each one of them represents a pair of shared electrons
has two covalent bonds link two hydrogen atoms to the carbon atom
is one of the most complicated organic compounds
has two lines in its formula, each one of them represents a pair of shared electrons

1. Carboxyl group is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

consists of a hydrogen bonded to an oxygen
consists of a nitrogen bonded to two hydrogen atoms and a carbon skeleton
consists of a phosphorus atom bonded to four oxygen atoms
none of the above

1. There are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ classes of biological molecules.

four
three
two
a and b

1. Monosaccharaides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are the simplest carbohydrates
are structurally similar to fats and are an important component of all cells.
are water insoluble (hydrophobic, or water- fearing) compounds that are important in energy storage
none of the above

1. DNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Nitrogenous bases are adenine (A), thymine (T), cytosine (C), and guanine (G)
is usually a single polynucleotide strand
Has three polynucleotide strands wrap around each other
none of the above

1. hydrophilic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

have a polar **R** group
easily dissolve in aqueous solutions
have a nonpolar **R** group
a and b

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a group of Carbohydrates

Polysaccharides
nucleotides
Cholesterol
none of the above

1. Monosaccharaides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are used as raw materials to manufacture other organic molecules
have similar length carbon skeletons
Others have eight to ten carbon atoms
none of the above

1. Polysaccharides include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chitin
similar length carbon skeletons
vary length carbon skeletons"
none of the above

1. Cellulose \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

is a polymer of glucose that forms plant cell walls
is a storage polysaccharide composed of glucose, which is hydrolyzed by animals when glucose is needed
is a polysaccharide used by insects and crustaceans to build an exoskeleton
a and b

1. Lipids \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are important in energy storage
are water soluble compounds
contain half as much energy as a polysaccharide
a and b

1. In phospholipids, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

the hydrophilic heads are in contact with the water of the environment
the hydrophilic heads are in contact with the inside of the cell environment
the hydrophobic tails band in the outside of the bilayer
none of the above

1. Proteins \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

have unique structures that are directly related to their functions
are the main source of energy
have combinations of 10 amino acid monomers
none of the above

1. Organic Compound (Molecule) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

is a Carbon-based molecule
in which, carbon can bound to four other atoms by sharing electrons
in which, carbon atoms, with attached hydrogens, can bond together in chains of various lengths
all of the above

1. Methane \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

has four lines in its formula, each one of them represents a pair of shared electrons
has two lines in its formula, each one of them represents a pair of shared electrons
has four lines in its formula, each one of them represents a single shared electron
all of the above

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is consists of a hydrogen bonded to an oxygen

Carbonyl group
Amino group
Phosphate group
none of the above

1. There are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ classes of biological molecules.

four
three
five
a and b

1. \_\_\_\_\_\_\_\_\_\_\_\_ is (are) are water insoluble (hydrophobic, or water- fearing) compounds that are important in energy storage

Lipids
Phospholipids
Monosaccharaides
all of the above

1. RNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Nitrogenous bases are A, C, and G, but instead of T, it has uracil (U)
Nitrogenous bases are adenine (A), thymine (T), cytosine (C), and guanine (G)
Has three polynucleotide strands wrap around each other
a and b

1. hydrophobic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

is Insoluble in water
have a polar **R** group
easily dissolve in aqueous solutions
a and b

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a group of Carbohydrates

Polysaccharides
Phospholipids
Cholesterol
none of the above

1. Monosaccharaides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Others have three to seven carbon atoms
Others have eight to ten carbon atoms
has very long carbon skeletons
a and b

1. Polysaccharides include \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chitin
similar length carbon skeletons
very long carbon skeletons
a and b

1. Cellulose \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

is a polymer of glucose that forms plant cell walls
is a storage polysaccharide composed of glucose monomers and found in plants
is a polysaccharide used by insects and crustaceans to build an exoskeleton
all of the above

1. Lipids \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are important in energy storage
are water soluble compounds
contain half as much energy as a polysaccharide
all of the above

1. Phospholipids \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are a major part of cell membranes
cluster into a bilayer of phospholipids
are a minor part of cell membranes
a and b

1. Proteins \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

have combinations of 20 amino acid monomers
have combinations of 10 amino acid monomers
have combinations of 30 amino acid monomers
none of the above

1. Organic Compound (Molecule) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

is a Carbon-based molecule
in which, carbon can branch in up to four directions
has unique properties that depend upon the groups of atoms (functional groups) attached to it
all of the above

1. Methane \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

is one of the simplest organic compounds
has four covalent bonds link four hydrogen atoms to the carbon atom
has two covalent bonds link two hydrogen atoms to the carbon atom
a and b

1. Phosphate group is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

consists of a phosphorus atom bonded to four oxygen atoms
consists of a carbon bonded to a hydroxyl group and double-bonded to an oxygen
consists of a nitrogen bonded to two hydrogen atoms and a carbon skeleton
all of the above

1. There are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ classes of biological molecules.

four
three
five
none of the above

1. \_\_\_\_\_\_\_\_\_\_\_\_ is (are) are water insoluble (hydrophobic, or water- fearing) compounds that are important in energy storage

Lipids
Proteins
Dehydration reactions
none of the above

1. DNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Nitrogenous bases are adenine (A), thymine (T), cytosine (C), and guanine (G)
Nitrogenous bases are A, C, and G, but instead of T, it has uracil (U)
is usually a single polynucleotide strand
all of the above

1. hydrophilic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

easily dissolve in aqueous solutions
have a nonpolar **R** group
is Insoluble in water
none of the above

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a group of Carbohydrates

Monosaccharaides
Phospholipids
nucleotides
all of the above

1. Monosaccharaides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

have vary length carbon skeletons
have similar length carbon skeletons
Others have eight to ten carbon atoms
all of the above

1. Polysaccharides include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cellulose
similar length carbon skeletons
very long carbon skeletons
a and b

1. Chitin \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

is a polysaccharide used by insects and crustaceans to build an exoskeleton
is a storage polysaccharide composed of glucose monomers and found in plants
is a polymer of glucose that forms plant cell walls
all of the above

1. Lipids \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are water insoluble compounds
contain half as much energy as a polysaccharide
contain four- times as much energy as a polysaccharide
a and b

1. Phospholipids \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are a major part of cell membranes
cluster into a bilayer of phospholipids
cluster into ONE layer of phospholipids
a and b

1. Proteins \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

have combinations of 10 amino acid monomers
have combinations of 20 amino acid monomers
have combinations of 30 amino acid monomers
are the main source of energy

1. Organic Compound (Molecule) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

in which, carbon can bound to five other atoms by sharing electrons
in which, carbon can bound to four other atoms by gaining electrons
in which, carbon atoms, with attached Oxygen, can bond together in chains of various lengths
in which, carbon atoms, with attached hydrogens, can bond together in chains of various lengths

1. Methane \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

has four lines in its formula, each one of them represents a pair of shared electrons
has two covalent bonds link two hydrogen atoms to the carbon atom
is one of the most complicated organic compounds
a and b

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is consists of a carbon linked by a double bond to an oxygen atom

Carbonyl group
Hydroxyl group
Carboxyl group
none of the above

1. There are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ classes of biological molecules.

four
two
five
all of the above

1. \_\_\_\_\_\_\_\_\_\_\_\_\_ is (are) member(s) of Biological molecules

Monosaccharaides or Hydrocarbons
Cellulose
disaccharide
Amino group

1. DNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Nitrogenous bases are adenine (A), thymine (T), cytosine (C), and guanine (G)
is usually a single polynucleotide strand
Has three polynucleotide strands wrap around each other
none of the above

1. hydrophilic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

have a polar **R** group
easily dissolve in aqueous solutions
have a nonpolar **R** group
a and b

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a group of Carbohydrates

Monosaccharaides
nucleotides
Cholesterol
a and b

1. Monosaccharaides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

have vary length carbon skeletons
Others have eight to ten carbon atoms
has very long carbon skeletons
all of the above

1. Polysaccharides include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chitin
similar length carbon skeletons
vary length carbon skeletons"
a and b

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a polysaccharide used by insects and crustaceans to build an exoskeleton

Chitin
Starch
Cellulose
all of the above

1. Lipids \_\_\_\_\_\_\_\_\_\_\_\_\_\_

are important in energy storage
contain twice as much energy as a polysaccharide
contain half as much energy as a polysaccharide
a and b

1. In phospholipids, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

the hydrophilic heads are in contact with the internal part of the cell
the hydrophobic tails band in the center of the bilayer
the hydrophobic tails band in the outside of the bilayer
a and b

1. Proteins \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are essential to the structures and functions of life
have combinations of 10 amino acid monomers
have combinations of 30 amino acid monomers
all of the above

1. Organic Compound (Molecule) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

in which, carbon can bound to five other atoms by sharing electrons
in which, carbon can bound to four other atoms by gaining electrons
in which, carbon atoms, with attached Oxygen, can bond together in chains of various lengths
is a Carbon-based molecule

1. Methane \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

has two covalent bonds link two hydrogen atoms to the carbon atom
has two lines in its formula, each one of them represents a pair of shared electrons
is one of the most complicated organic compounds
none of the above

1. Hydroxyl group is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

consists of a hydrogen bonded to an oxygen
consists of a carbon linked by a double bond to an oxygen atom
consists of a phosphorus atom bonded to four oxygen atoms
a and b

1. There are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ classes of biological molecules.

four
three
two
all of the above

1. \_\_\_\_\_\_\_\_\_\_\_\_ is (are) Monomers are linked together to form polymers through dehydration reactions, which remove water

Dehydration reactions
Hydrocarbons
Monosaccharaides
a and b

1. RNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Nitrogenous bases are A, C, and G, but instead of T, it has uracil (U)
Nitrogenous bases are adenine (A), thymine (T), cytosine (C), and guanine (G)
Has three polynucleotide strands wrap around each other
all of the above

1. hydrophobic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

is Insoluble in water
have a polar **R** group
easily dissolve in aqueous solutions
none of the above

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a group of Carbohydrates

Monosaccharaides
Phospholipids
Cholesterol
a and b

1. Monosaccharaides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

have vary length carbon skeletons
have similar length carbon skeletons
has very long carbon skeletons
none of the above

1. Polysaccharides include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chitin
similar length carbon skeletons
vary length carbon skeletons"
all of the above

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a storage polysaccharide composed of glucose monomers and found in plants

Starch
Glycogen
Cellulose
all of the above

1. Lipids \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are important in energy storage
are water soluble compounds
contain half as much energy as a polysaccharide
a and b

1. In phospholipids, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

the hydrophilic heads are in contact with the water of the environment
the hydrophilic heads are in contact with the inside of the cell environment
the hydrophobic tails band in the outside of the bilayer
all of the above

1. Proteins \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are essential to the structures and functions of life
are the main source of energy
have combinations of 30 amino acid monomers
all of the above

1. Organic Compound (Molecule) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

in which, carbon can bound to four other atoms by gaining electrons
in which, carbon can bound to four other atoms by losing electrons
in which, carbon can bound to four other atoms by sharing electrons
in which, carbon can bound to five other atoms by sharing electrons

1. Methane \_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

is one of the simplest organic compounds
chemical symbol is CH2
has two lines in its formula, each one of them represents a pair of shared electrons
none of the above

1. Phosphate group is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

consists of a phosphorus atom bonded to four oxygen atoms
consists of a nitrogen bonded to two hydrogen atoms and a carbon skeleton
consists of a hydrogen bonded to an oxygen
consists of a carbon bonded to a hydroxyl group and double-bonded to an oxygen

1. There are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ classes of biological molecules.

four
two
five
none of the above

1. Hydrocarbons \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are polymers built from various combinations of 20 amino acid monomers
are the simplest carbohydrates
are structurally similar to fats and are an important component of all cells.
are compounds that composed of only carbon and hydrogen.

1. DNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Nitrogenous bases are adenine (A), thymine (T), cytosine (C), and guanine (G)
Has two polynucleotide strands wrap around each other to form a double helix
is usually a single polynucleotide strand
a and b

1. hydrophobic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

have a nonpolar **R** group
have a polar **R** group
easily dissolve in aqueous solutions
a and b

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a group of Carbohydrates

Polysaccharides
Phospholipids
Cholesterol
all of the above

1. Monosaccharaides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Others have three to seven carbon atoms
Others have eight to ten carbon atoms
has very long carbon skeletons
none of the above

1. Polysaccharides include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cellulose
vary length carbon skeletons"
very long carbon skeletons
none of the above

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a polymer of glucose that forms plant cell walls

Cellulose
Starch
Chitin
a and b

1. Lipids \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

contain twice as much energy as a polysaccharide
contain half as much energy as a polysaccharide
contain four- times as much energy as a polysaccharide
all of the above

1. Phospholipids \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are a major part of cell membranes
cluster into ONE layer of phospholipids
are a minor part of cell membranes
none of the above

1. Enzymes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

serve as metabolic catalysts
are Lipids
serve as transport
all of the above

1. Organic Compound (Molecule) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

in which, carbon can branch in up to four directions
has unique properties that depend upon the size and shape of the molecule
in which, carbon can bound to five other atoms by sharing electrons
a and b

1. Methane \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

has four covalent bonds link four hydrogen atoms to the carbon atom
chemical symbol is CH2
has two covalent bonds link two hydrogen atoms to the carbon atom
is one of the most complicated organic compounds

1. Carboxyl group is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

consists of a carbon bonded to a hydroxyl group and double-bonded to an oxygen
consists of a carbon linked by a double bond to an oxygen atom
consists of a nitrogen bonded to two hydrogen atoms and a carbon skeleton
none of the above

1. There are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ classes of biological molecules.

four
three
two
a and b

1. \_\_\_\_\_\_\_\_\_\_\_\_ is (are) are compounds that composed of only carbon and hydrogen.

Monosaccharaides
Proteins
Dehydration reactions
Hydrocarbons

1. RNA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

is usually a single polynucleotide strand
Nitrogenous bases are adenine (A), thymine (T), cytosine (C), and guanine (G)
Has three polynucleotide strands wrap around each other
a and b

1. hydrophilic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

have a polar **R** group
have a nonpolar **R** group
is Insoluble in water
none of the above

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a group of Carbohydrates

Disaccharide
nucleotides
Cholesterol
none of the above

1. Monosaccharaides \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Others have three to seven carbon atoms
have similar length carbon skeletons
has very long carbon skeletons
all of the above

1. Polysaccharides include \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Glycogen
similar length carbon skeletons
very long carbon skeletons
a and b

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a storage polysaccharide composed of glucose monomers and found in plants

Starch
Glycogen
Chitin
none of the above

1. Lipids \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

contain twice as much energy as a polysaccharide
are water soluble compounds
contain half as much energy as a polysaccharide
a and b

1. In phospholipids, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

the hydrophilic heads are in contact with the water of the environment
the hydrophilic heads are in contact with the inside of the cell environment
the hydrophobic tails band in the outside of the bilayer
none of the above

1. Enzymes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

serve as metabolic catalysts
are Lipids
serve as transport
none of the above