**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