PAST PAPERS

BIOLOGY

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Chapter(3):The chemistry of water

1) The specific heat of water is :

   A.5 Cal per g per C
   B.2 Cal per g per C
   C.3 Cal per g per C
   D.1 Cal per g per C

2) The specific heat of water is

   A.High
   B.Low
   C.Moderate
   D.None of above

3) The sphere of water molecule around an ions is known as

   A.Hydration shell
   B.Cohesion
   C.Adhesion
   D.Surface tension

4) Each water molecules can form hydrogen bond with other ———molecules

   A.4
   B.3
   C.2
   D.1

5) Ice floats above liquid water because

   A.Ice is less dense than water
   B.Liquid water is less dense than water
   C.Both of liquid water and ice have same density
   D.A+C
   E.None of the above

6) some evaporation can occur at———-

   A.High temperature
   B.Low temperature
   C.Any temperature
   D.At 100C
   E.None of the above

7) Describe water's heat of vaporization

A.High
B.Low
C.Moderate
D.It has none
E.All of the above

8) when water vaporizes , which of the following bonds must be broken

A.Ionic
B.Polar covalent
C.Hydrogen bond
D.Hydrophobic
E.None of the above

9) which the following is not property of liquid water

A.Ice has a lower density than liquid water
B.Liquid water has high surface tension
C.Can form hydrogen bond with other water molecules
D.Has low specific heat
E.None of the above

10) Most important reason for unusual properties of water is

A.The covalent bonding pattern-in water molecules
B.The bond angle between two hydrogen atoms in the molecule
C.Hydrogen bonding between water molecules
D.None of the above
E.All of the above

11) The property that can make water resistant to changing in its temperature

A.High surface tension
B.High specific heat
C.High heat of evaporation
D.Its V shape
E.Covalent bond between water molecules

12) In aqueous solution , the solvent is ——-

A.Water chloroform

B.Ether
C.All of the above
D.None of the above

13) which of the following classified as hydrophilic molecules but cannot dissolve in water

A.Cellulose
B.Cotton
C.Oil
D.Salt
E.A+ B

14) Which of the following helps in the transporting of water against gravity

A.Cohesion
B.Adhesion
C.Evaporation
D.Condensation
E.All of them except D

15) Hydration shell can be form around

A.Ion
B.Sugar
C.Oil
D.Glucose
E.All of them except C

16) which of the following is true about electronegativity of oxygen and hydrogen

A.Hydrogen is more electronegative than oxygen
B.Oxygen is more electronegative than hydrogen
C.Oxygen and hydrogen have the same electro negativity

17) which the following is hydrophobic material

A.Paper
B.Salt
C.Wax
D.Sugar
E.Pasta

18) Transformation of material from liquid to gaseous state is known as

A.Evaporation
B.Vaporization

C.Boiling
D.Condensation
E.A+B

19) The tendency of water molecules to stay close to each other as a result hydrogen bonding

A.Acts to moderate temperature
B.Keeps water moving through the vessels in tree trunk
C.Is called cohesion
D.Provide the surface tension that allows leaves to float on water
E.All of the listed responses are correct

20) The oxygen atom in a water molecule due to its high electronegativity

A.One negative charge
B.Two negative charges
C.One positive charge
D.Two positive charges
E.None of the above

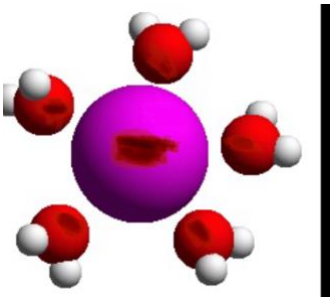
21) Hydrogen bond is
Attraction between hydrogen and electronegative atom

22) What is specific heat

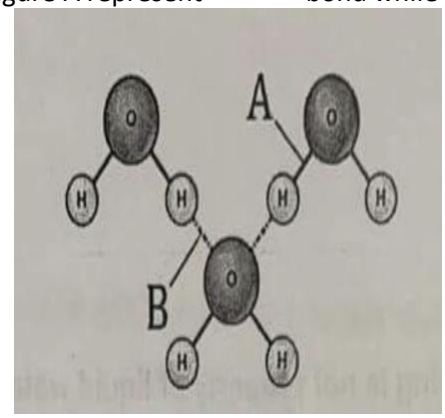
A.The temperature it takes to raise 1g of a substance by 1 degree C
B.The temperature it takes to raise 1g of a substance by 1 degree F
C.The temperature in Celsius to boil 1g of substance at boiling point

23) Based on your knowledge of the polarity of water molecules, the solute molecules depicted here is most likely.

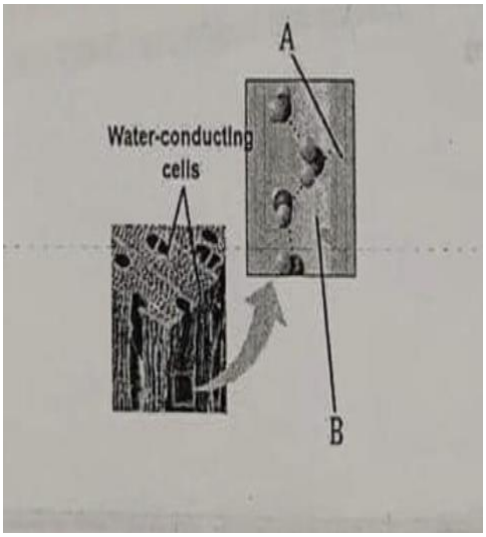
A.Positively charged
B.Negatively charged
C.Whiteout charged
D.None polar



24) According to the figure A represent ———- bond while B represent ———bond



25) According to the figure which letters represent adhesion and which represent cohesion?



26)When water vaporizes, which of the following bonds is broken

A. Ionic
B. Hydrogen
C. Polar covalent
D. Non polar covalent

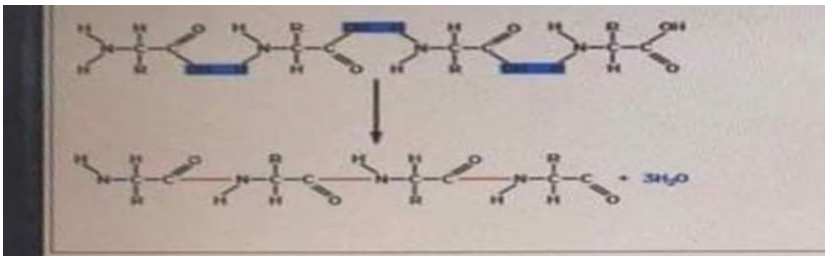
Answers

1. D) 1 cal per g per C
2. A)High
3. A)Hydration shell
4. A)4
5. A)Ice is less dense than water
6. C)At any temperature
7. A)High
8. C)Hydrogen bond
9. D)Has low specific heat
10. C)Hydrogen bonding between water molecules
11. B)High specific heat
12. A)Water
13. E)B+ A
14. E)All of them except D
15. E)All of them except C
16. B)Oxygen is more electronegative than hydrogen
17. C)Wax
18. E)A+B
19. E)All of the listed responses are correct
20. B)Two negative charges
21. Answered
22. A.The temperature it takes to raise 1g of a substance by 1 degree C
23. Positively charged
24. A)polar. B)hydrogen bond
25. A) Adhesion. B)Cohesion
26. B)Hydrogen bonds **

"نشق الدروب إليك يا رب، موقنين أنها خضراء نضرة، راجيين أن تحصد أقدامنا حبك وقبولك، آملين.
ألَّا يمسنا نصب ولا تقل عزيمتنا "

Chapter (5): Biological macromolecules

1. What are formed in the reaction shown



A. Ester bond
B. Peptide bond
C. hydrogen bond
D. ionic bond

2. Sulfur can be found in:

A. Proteins
B. Starch
C. DNA
D. Cholesterols
E. Fats

3. All of the following considered as lipids except of

A. Fats
B. Phospholipids
C. Some waxes
D. Cholesterols
E. All of them are lipids

4. The sugar that have nitrogen containing appendage in their monomer

A. Cellulose
B. Starch
C. Glycogen
D. Chitin

5. Insoluble fibers is

A. Carbs
B. Cellulose
C. Starch
D. Glycogen
E. A + B

6. Disulfide bridge can stabilize _____structure of protein

A. Primary
B. Secondary
C. Tertiary
D. Quaternary
E. All of the above

7. Which of the following doesn't contain amino acids

A. Hemoglobin
B. Collagens
C. Enzymes
D. RNA
E. Insulin

8. Which of the following doesn't contain true polymer?

A. Protein
B. Carbs
C. Lipids
D. DNA
E. RNA

9. Lipids are a group of molecules that_____

A. Contain peptide bonds
B. Mix poorly with water
C. Contain polar parts
D. All of the above
E. A + B

10. How many water molecules needed to hydrolyze a polymer made of 4 monomers

A. 4
B. 3
C. 2
D. 1

11. In order to synthesize one fat molecule, the dehydration reaction needs remove_____ water molecules

A. 3
B. 4
C. 5
D. 6

12. Secondary structure of protein form by hydrogen bonding between_____

A. Backbone
B. Side chain
C. R group
D. Amino groups
E. None of the above

13. Which of the following is “Storage carbs in plant

A. Starch
B. Cellulose
C. Glycogen
D. Chitin
E. Insulin

14. Enzymes are usually_____

A. Carbs
B. Fats
C. Nucleic acid
D. Monosaccharides
E. Protein

15. Animals store glucose in the form of which macromolecule

A. Amylose
B. Glycogen
C. Glycerol
D. Cellulose

16. Which of the following is true about globular proteins

A. It’s hydrophilic amino acids can be found at the surface
B. It’s hydrophilic amino acids can be found in the core
C. It’s hydrophobic amino acid can be found at the surface
D. It’s hydrophobic amino acid can be found in the core
E. A + D

17. Which of the following is mismatched

A. Polypeptide =peptide bond
B. Fats= ester bond
C. Carbs= glycosidic linkage
D. All of them are correct

18. Which of the following is true about DNA

A. It's 5 end contains OH
B. It's 3 end contains phosphate group
C. It contains ribose sugar in its nucleotide
D. It is found as a double helix molecule

19. The minimum number of carbons in monosaccharide is

A. 4
B. 5
C. 3
D. 2
E. 1

20. In the formation of macromolecule what type of reaction would join two subunits together

A. Hydrophobic reaction
B. Hydrolysis reaction
C. Dehydration reaction
D. Denaturation reaction

21. Assuming that all of the below given compound had the same number of carbon atoms, which of the following has the most C-H bonds

A. Unsaturated fat
B. Poly saturated fat
C. Polysaccharides
D. Saturated fats

22. The different chemical and physical properties of amino acid depends on

A. Carboxyl group
B. Amino group
C. Side chain
D. Alpha Carbon

23. Aldose sugars and ketose sugars differ in

A. Position of carbonyl group
B. Number of carbonyl groups
C. Position of carboxyl group
D. Number of carboxyl groups

24. Cholesterol is a

A. Triglyceride
B. Phospholipid
C. Steroid
D. Proteins
E. All of the above

25. Which of the following isn't a disaccharide

A. Sucrose
B. Maltose
C. Lactose
D. Amylose

26. Which of the following is hydrophobic

A. Cellulose
B. Starch
C. Animal fats
D. Oils
E. C + D

27. Which the following is true about saturated fats?

A. It contains unsaturated fatty acid with double bond
B. It contains saturated fatty acid with no kinks
C. It is sold at room temperature
E. All of them are correct except A

28.Oils are liquid at room temperature because they

A. Are small molecules
B. Are nonpolar
C. Are hydrophobic
D. Contains unsaturated fatty acid
E. Contains saturated fatty acid

29. Which of the following is true：

A. Amylose is branched molecule
B. Amylopectin is unbranched molecule
C. Starch contains alpha glucose in its monomer
D. Human can digest starch
E. Both C and D are correct

30. Misfolded protein involved in:

A. Mad cow disease
B. Parkinson's disease
C. Cystic fibrosis
D. Alzheimer's
E. All of the above

31. which of the following found only in RNA:

A. Ribose sugar and adenine
B. Deoxyribose sugar and uracil
C. Ribose sugar and uracil
D. Ribose sugar and guanine
E. Any of the above

32. Large organic molecules are usually assembled by polymerization of few kinds of simple subunits. Which of the following is exception to this statement ?

A. A steroid
B. Cellulose
C. DNA
D. An enzyme
E. A contractile protein

33. The bonding of two amino acid molecules to form larger molecule requires:

A. The release of water molecule
B. The release carbon dioxide molecule
C. The addition of nitrogen atom
D. The addition of water molecule
E. The release of nitrogen dioxide molecule

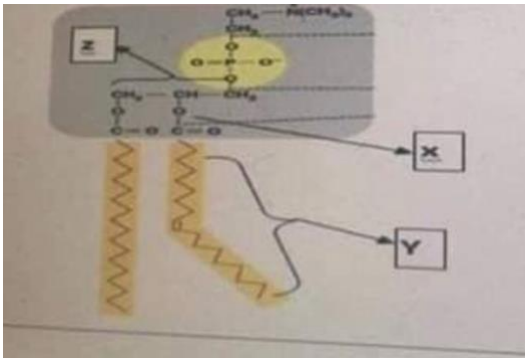
34. Which of the following is false about cellulose?

A. It made of B-glucose
B. It is the main component of plant cell wall
C. Can form hydrogen bond with other parallel cellulose molecules
D. it cannot be digested by human enzymes
E. All of them are true

35. Which of the following not polymer

A. Steroid
B. Starch
C. Cellulose
D. Chitin

36. The bond at (X) is described as_____ bond



A. Glycosidic
B. Ester
C. Peptide
D. Ionic

37. Which of the following nitrogenous bases is purine

A. C and G
B. A and G
C. U and T

38. What type of macromolecule carries out catalysis in biological systems

A. Protein called enzymes
B. Carbs called starches
C. Lipids called steroids

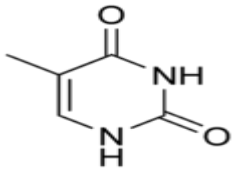
39. What are the most diverse macromolecule in the cell

A. Lipid
B. Mineral salts
C. Proteins
D. Carbs

40. In a sucrose molecule, the linkage between glucose and fructose is:

A. 1-4 glycosidic
B. 1-2 glycosidic
C. 1-6 glycosidic
D. Peptide
E. Ester

41. The figure represents



A. Purine
B. Pyrimidine
C. Sugar
D. Fat

42. Molecule with which functional group may form polymers via dehydration reactions ?

A. hydroxyl group
B. carbonyl group
C. Carboxyl group
D. Either carbonyl or carboxyl group
E. Either carboxyl or hydroxyl group

43. Which of these molecules is not formed by dehydration reaction ?

A. Fatty acid
B. Disaccharide
C. DNA
D. Protein
E. Amylose

44. Which of these classes of biological molecule consist of both small molecules and macromolecules polymers ?

A. Lipids
B. Carbohydrates
C. Protein
D. Nucleic acid
E. Lipids, carbohydrates, protein and nucleic acid all consist of only macromolecular polymer

45. Which of the following is not a polymer ?

A. Glucose
B. Starch
C. Cellulose
D. Chitin
E. DNA

46. Which of the following is true about sickle cell anemia?

A. It is caused by point mutation that lead to substitution of one amino acid
B. It is involved abnormal alpha subunit
C. Hemoglobin molecules aggregate in a long fiber
D. Reduced capacity for oxygen transport
E. All of them are true except of (B)

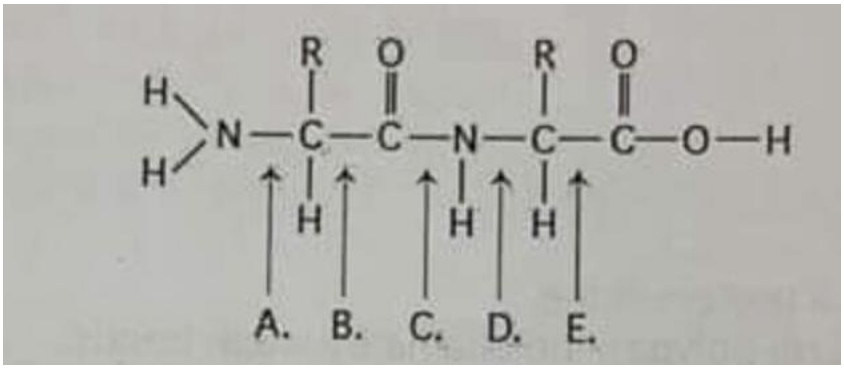
47. Which of the following categories includes all other in the list?

A. Disaccharide
B. Polysaccharide
C. Starch
D. Carbohydrate

48. Which is the chemical reaction mechanism by which cell make polymer from monomers ?

A. Phosphodiester linkages
B. Hydrolysis
C. Dehydration reaction
D. Ionic bonding of monomers
E. The formation of disulfide bridges between monomers

49. According to the figure



A) Which bond is peptide bond?

A. A
B. B
C. C
D. D
E. E

B) Which bond is closest to the amino terminus of the molecule?

A. A
B. B
C. C
D. D
E. E

C) At which bond water needed to be added to achieve hydrolysis of the peptide

A. A
B. B
C. C
D. D
E. E

50. How many molecules of water are needed to completely hydrolyze a polymer that is 11 monomers long?

A. 12
B. 11
C. 10
D. 9
E. 8

51. Which of the following is best summarizes the relationship between dehydration reaction and hydrolysis ?

A. Dehydration reaction assemble polymers, and hydrolysis reaction break down polymers
B. Dehydration reaction eliminate water from lipid membranes, and hydrolysis make lipid membranes water permeable
C. Dehydration reaction can occur only after hydrolysis
D. Hydrolysis creates monomers, and dehydration reaction break down polymers
E. Dehydration reaction ionize water molecules and add hydroxyl group to polymers; hydrolysis reaction release hydroxyl group from polymers

52. Lactose, a sugar in milk, is composed of one glucose molecule joined by a glycosidic linkage to one galactose molecule. How is lactose classified?

A. As a pentose
B. As a hexose
C. as a monosaccharide
D. As a disaccharide
E. As a polysaccharide

53. Human sex hormone can be classified as

A. Protein
B. Lipid
C. Steroids
D. B+C
E. A+ B

54.The simplest amino acid is

A. Glycine
B. Serine
C. Valine
D. Lysine

55. which of the following is true of both starch and cellulose ?

A. They are both polymers of glucose
B. They are cis-trans isomers of each other
C. They can both be digested by humans
D. They are both used for energy storage in plants
E. They are both structural components of the plant cell wall

56. which of the following statements is true for the class of biological molecules known as lipids?

A. They are insoluble in water
B. They are made from glycerol, fatty acid, phosphate
C. They contain less energy than proteins and carbohydrates
D. They are made by dehydration reaction
E. They contain nitrogen

57. when protein lose its native shape it called:

A. Denaturation
B. Renaturation
C. Destruction
D. Deformation
E. None of the above

58. Phospholipids contain：

A. Glycerol
B. 2 hydrocarbon tails
C. Phosphate group
D. Amino group
E. All of them except of (D)

59. There are 20 different amino acids, what makes one amino acid different from another

A. Different side chain (R group) attached to COOH group
B. Different side chain (R group) attached to amino groups
C. Different side chain (R group) attached to a carbon
D. Different asymmetric carbons

60. Upon chemical analysis, a particular polypeptide was found to contain 100 amino acids, how many peptide bonds are present in this protein

A. 100
B. 101
C. 99
D. 98
E. 97

61. If a DNA sample were composed of 10% thymine, what would be the percentage of guanine

A. 10
B. 20
C. 40
D. 80

62. which of the following polymers contain nitrogen ?

A. Starch
B. Glycogen
C. Cellulose
D. Chitin
E. Amylopectin

63. a molecule with the chemical formula C6H12O6 is probably a:

A. Carbohydrate
B. Lipid
C. Monosaccharide
D. Carbohydrate and lipid only
E. Carbohydrate and monosaccharide only

64. The molecular formula for glucose is C6H12O6. What would be the molecular formula for a polymer made by linking 10 glucose by dehydration reaction (CHO)

A. (60 120 60)
B. (6 12 6)
C. (60 102 51)
D. (60 100 50)

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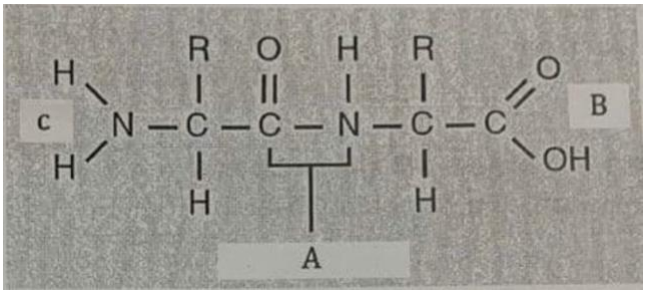
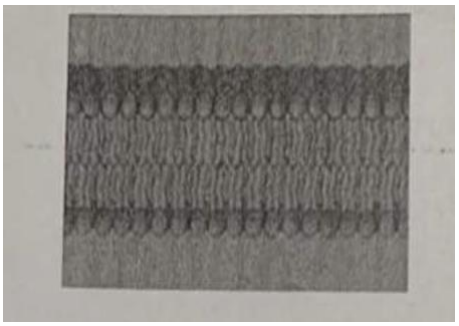
65.



A: A represent—-——— bond
B: B represent—————
C: C represent ——————-

66.The figure shows

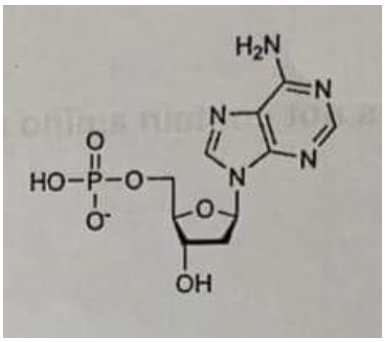


A. Phospholipid bilayer
B. The structure of cell membrane
C. Unsaturated fats
D. Cholesterols
E. A+B

67.The figure shows

A.RNA 3d shape
B. Collagen
C. Cellulose
D. DNA

68. The figure represents



A. Nucleotide
B. Nucleoside mono phosphate
C. Nucleoside diphosphate
D. A+ B

69. Which of the following pairs of base form normal double helix of DNA

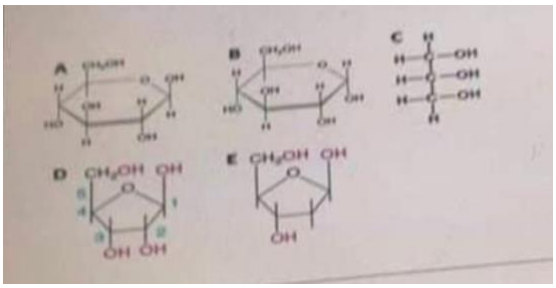
A. 5'-AGCT-3' with 5'-TCGA-3'
B. 5'-GCGC-3' with 5'-TATA-3'
C. 5'-ATGC-3' with 5'-GCAT-3'
D. All of the above are correct

70. The molecular formula for a polymer of 10 ribose molecules
(C H O)

A. 6 12. 6
B. 5. . 10. . 5
C. 60. 120. 60
D. 60. 102. 51
E. 50 92. 41

71. Which of the molecules shown in the figure is the monomer of cellulose

A. A
B. B
C. C
D. D
E. E



72. The tertiary structure of protein is the
Unique 3d shape of the fully folded polypeptide

73. RNA molecules can find as a 3D shape due to：
A. Hydrogen bonds between complementary base pairing

Answers

1. B
2. A
3. E
4. D
5. B
6. C
7. D
8. C
9. B
10. B
11. A
12. A
13. A
14. E
15. B
16. E
17. D
18. D
19. C
20. C
21. D
22. C
23. A
24. C
25. D
26. E
27. E
28. D
29. E
30. E
31. C
32. A
33. A
34. E
35. A
36. B
37. B
38. A
39. C
40. B
41. B
42. E
43. A
44. B
45. A
46. E

47. D
48. C
49. A) C B) A C) C
50. C
51. A
52. D
53. D
54. A
55. A
56. A
57. A
58. E
59. C
60. C
61. C
62. D
63. E
64. C
65. A: Peptide bond
    B: C terminus
    C: N terminus
66. E
67. B
68. A
69. C
70. E
71. A

Chapter 7

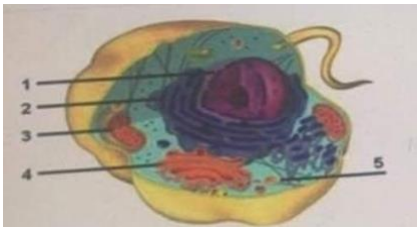
A) Which of the following pairs would be separated by different configurations?

A) Ribosomes , Mitochondria
B) Na+ , K+
C) Cl- , H2PO4-
D) Amino Acids , glucose
E) None of the above

B) Viruses can be seen by

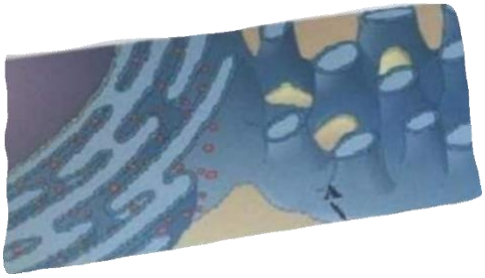
A) Compound microscope
B) Dissecting microscope
C) Electron microscope
D) Unaided eye
E) A,B and C

C) Which organelle is responsible for the production of membrane proteins?



A) 1
B) 2
C) 3
D) 4
E) 5

D) Structure A in the picture functions in all of the following except



A Carbohydrate metabolism
B Steroids synthesis
C Calcium storage

D Drugs detoxification
E Proteins sorting and packaging

E) The middle lamella that joins plant cells together is

A) produced by the endoplasmic reticulum
B) produced by the Golgi apparatus
C) rich in sticky polysaccharides called pectins
D) made of cellulose
E) B&C are correct

F) Which of the following organelles are interconnected and made of membranous sacs called cisternae?

A) Golgi apparatus
B) Smooth endoplasmic reticulum
C) Rough endoplasmic reticulum
D) B&C
E) All of the above

G) Large organisms do not generally have larger cells than small organisms, but simply have more cells, because

A) Smaller cells have greater surface area to volume ratio
B) Smaller cells have smaller surface area to volume ratio
C) Diffusion cannot occur in large cells
D) Large cells have fewer metabolic reactions
E) Small cells move faster than large cells

1)Which of the following contain the 9 + 2 arrangement of microtubules?

A) Cilia
B) Centrioles
C) Flagella
D) A and C only
E) A, B, and C

2)Which of the following possesses a micro tubular structure similar to a basal body?

A) Centrioles
B) Lysosome
C) Nucleolus
D) Peroxisomes
E) Ribosome

3) Which statement correctly characterises bound ribosomes?

A) Bound ribosomes are enclosed in their own membrane.
B) Bound and free ribosomes are structurally different
C) Bound ribosomes generally synthesise membrane proteins and secretory proteins.
D) The most common location for bound ribosomes is the cytoplasmic surface of the plasma membrane.
E) All of the above.

4) Tay-Sachs disease is a human genetic abnormality that results in cells accumulating and becoming clogged with very large and complex lipids.
Which cellular organelle must be involved in this condition

A) The endoplasmic reticulum
B) The Golgi apparatus
C) Lysosomes
D) Mitochondria
E) membrane-bound ribosomes

5)Which is one of the main energy transformers of cells?

A) Lysosome
B) Vacuole
C) Mitochondrion
D) Golgi apparatus
E) Peroxisomes

6) Which of the following contains its own DNA and ribosomes?

A) Lysosome
B) Vacuole
C) Mitochondrion
D) Golgi apparatus
E) Peroxisomes

7) A cell has the following molecules and structures: enzymes, DNA, ribosomes, plasma membrane, and mitochondrion, it could be a cell from

A) A bacterium.
B) An animal, but not a plant.
C) A plant, but not an animal.
D) A plant or an animal.
E) any kind of organism.

8)Cyanide binds with at least one molecule involved in producing ATP. If a cell is exposed to cyanide, most of the cyanide would be found within the

A) mitochondria.
B) Ribosomes.
C) Peroxisomes.
D) Lysosomes.
E) Endoplasmic reticulum.

9) The liver is involved detoxification of many poisons and drugs. Which of the following structures is primarily involved in this process and therefore abundant in liver cells?

A) Rough ER
B) Smooth ER
C) Golgi apparatus
D) Nuclear envelope
E) Transport vesicles

10) 49)Which of the following produces and modifies polysaccharides that will be secreted?

A) Lysosome
B) Vacuole
C) Mitochondrion
D) Golgi apparatus
E) Peroxisomes

11) Which type of organelle is primarily involved in the synthesis of oils, phospholipids, and steroids?

A) Ribosome
B) Lysosome
C) Smooth endoplasmic reticulum
D) Mitochondrion
E) Contractile vacuole

12) Which of the following contains hydrolytic enzymes?

A) Lysosomes

B) Vacuole
C) Mitochondrion
D) Golgi apparatus
E) Peroxisomes

13) Which of the following are capable of converting light energy to chemical energy?

A) Chloroplasts
8) Mitochondria
C) Leucoplasts
D) Peroxisomes
E) Golgi bodies

14) Which of the following is a function of cell wall?

A) Prevent excessive uptake of the water
B) Protection
C) Maintain the cell shape
D) Holding plant against gravity
E) All of the above

15) Which of the following is true about free ribosomes?

A) It is attached to the nuclear envelope
B) It is attached to the ER
C) They produce the proteins that must be secreted out the cell
D) Producing cytoplasmic proteins
E) None of the above

16) ---------- is a framework of protein fibres extending throughout the nuclear interior

A) Nuclear lamina
B) Nuclear matrix
C) Middle lamella
D) Pore complex
E) None of the above

17) For studying Phagocytosis (Lysosome function) , the best cells used to study it:

A) Liver cells
B) Red blood cells
C) Macrophages
D) Skin cell
E) None of the above

18) The main function of cell fractionation?

- Separation of major organelles and sub-cellular components

19) Which of the following is not a function of cytoskeleton?

A) Transporting of molecules into the cell
B) Transporting of molecules within the cell
C) Providing structure and shape
D) Anchoring the cell
E) Cell movement

20) Which of the following organelles is absent in plant cells?

A) Plasma membrane
B) Cell wall
C) Chloroplast
D) Central vacuole
E) Centrosome

21) Grana and thylakoid can be found in:

A) Mitochondria
B) Chloroplasts
C) Golgi
D) Rough ER
E) Peroxisomes

22) All of the following is found in prokaryotic cells except

A) DNA
B) Chromosomes
C) Ribosomes
D) Cytosol
E) Nuclear envelope

23) Which of the following organelles responsible of proteins synthesis

A) Ribosomes
B) Lysosomes
C) Mitochondria
D) Microtubule
E) Nucleus

24) Large number of ribosomes can be found in cells that produce:

A) Proteins
B) Carbohydrate
C) Lipids
D) DNA
E) RNA

25) Which type of junctions establishes a barrier that prevents leakage of extracellular fluid across a layer of epithelial cells?

A) Tight Junction
B) Gap junction
C) Desmosomes
D) Plasmodesmata
E) None of the above

26) Ribosomes can be seen by:

A) Light microscope
B) Electron microscope
C) Unaided eye
D) None of the above
E) All of the above

27) Under which of the following conditions would you expect to find a cell with a predominance of free ribosomal?

A) A cell that is secreting proteins
B) A cell that is producing cytoplasmic enzymes
C) A cell that is constructing its call wall or extracellular matrix
D) A cell that is digesting food particles
E) A cell that is enlarging its vacuole

28) Materials from one animal cell can enter adjacent cell by :

A) Tight Junction
B) Gap Junction
C) Desmosome
D) Microfilament
E) Intermediate filament

29) Microtubules are not involved in?

A) Cilia
B) Flagella
C) Movement of organelles
D) Cell division
E) Amoeboid movement

30) The plant cell's central vacuole :

A) Play a major role in growth
B) Store nutrient
C) Reservoir of Inorganic ions
D) Occupied large space of the cell
E) All of the above

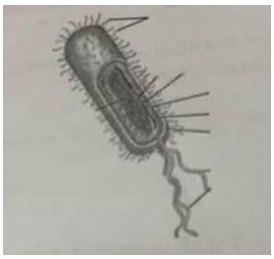
31) The nuclear envelope is directly connect to:

A) Endoplasmic reticulum
B) Golgi apparatus
C) Lysosomes
D) Peroxisomes
E) Food vacuole

32) Which of the following found in both bacteria and plant cells:

A) Chloroplasts
B) Cell wall
C) Nucleus
D) Mitochondria
E) None of the above

33) The figure represents:



A) Prokaryote
B) Eukaryote

C) Animal cell
D) Plant cell
E) Protists

34) Which oF the following is a function of the smooth ER?

A) Detoxification of drugs
B) Storage of calcium Ions
C) Synthesis of lIpIds
D) Synthesis of Glycoproteins and secretory proteins
E) All of them except (D)

35) The organelle that can carry out (Autophagy process) Is:

A) Golgi
B) ER
C) Nucleus
D) Mitochondria
E) Lysosomes

36) The correct pathway of secretory proteins:

A) Rough ER - Lysosome - Golgi - Plasma membrane
B) Smooth ER - Golgi - Transport vesicles - Plasma membrane
C) Rough ER - Golgi - Transport vesicle - Plasma membrane
D) Golgi - Lysosome - Plasma membrane
E) None of the above

37) The type of junction that can be seen between heart (Cardiac muscles) is

A) Tight junction
B) Gap junction
C) Desmosomes
D) Plasmodesmata
E) None of the above

38) Which of the following IS FALSE about lysosomes:

A) Can digest food and damage organelles
B) They are membranous
C) Contain hydrolytic enzymes
D) Has basic environment
E) All of the above is true

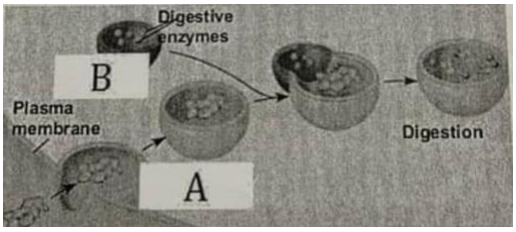
39) Cell wall can be found :

A) Plant cells only
B) Animal cells only
C) In both animal and plant cells
D) In plant cells and some prokaryote
E) Any of the above

40) Which of the following is correct?

A) Larger organisms have larger cells
B) Larger organisms have more cells
C) Surface area to volume ratio is large in smaller cells
D) Surface area to volume ratio is small in smaller cells
E) Both B and C are correct

41) According to the figure , (A) represent:



A) Lysosome
B) Food vacuole
C) Contractile vacuole
D) Peroxisomes

42) Chloroplasts and mitochondria have in common a :

A) Both of them bounded by double membrane
B) Both of them contain DNA
C) Both of them involved in energy conversion
D) Both of them involved in digestion of food
E) All of them true except of (D)

43) Which of the following is a compartment that often takes up much of the volume of a plant cell

A) Lysosome
B) Vacuole
C) Mitochondrion
D) Golgi apparatus
E) Peroxisomes

ANSWERS

A. A
B. C
C. B
D. E
E. E
F. D
G. A

1) D
2) A
3) C
4) C
5) C
6) C
7) D
8) A
9) B
10) D
11) C
12) A
13) A
14) E
15) D
16) B
17) C
18) …
19) A
20) E
21) B
22) E
23) A
24) A
25) A
26) B
27) B
28) B
29) E
30) E
31) A
32) B
33) A
34) E
35) E

36) C
37) B
38) D
39) D
40) E
41) B
42) E
43) B

ولله الحمد حتى يرضى

نَعوذُ بكَ مِن ذبولِ السَّعيِ في مُنتَصف الطَريق ... ونعوذُ بكَ مِن انطفاءةِ الرّوحِ ؛ بِخَفيّ الذُّنوب !