

PRACTICE QUESTIONS

Chapter 1 & 2

PowerPoint® Lecture Presentations for

Biology

Eighth Edition

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1) Starch granules in plant cell are

- A. Responsible for storage
- B. Responsible for photosynthesis
- C. Responsible for respiration
- D. None of the above

2) Which one of the following is associated with energy generation in cells?

- A. Mitochondria
- B. Cell cytoplasm
- C. Ribosomes
- D. Lysosome

3) Components of cell plasma membranes are the:

- A. Proteins
- B. Carbohydrates
- C. Phospholipids
- D. All of the above

4) Which one of the following is NOT an organelle?

- A. Mitochondria
- B. RNA
- C. Golgi complex
- D. Lysosomes

5) Plants synthesize protein from

- A. Starch
- B. Fatty acids
- C. Amino acids
- D. Nucleic Acids

6) A _____ is a biologist dedicated to naming, describing, and classifying organisms.

- A. Ecologist
- B. Physician
- C. Taxonomist
- D. Physiologist

7) Which atoms are always found in organic molecules?

A. Carbon and hydrogen

B. Carbon and oxygen

C. Carbon and nitrogen

D. Oxygen and nitrogen

8) Which group is present in alcohols?

A. Hydroxyl (OH)

B. Carbonyl (C=O)

C. Carboxyl (COOH)

D. Methyl (CH₃)

9) The backbone of a nucleotide is made of:

- A. Sugar-phosphate
- B. Nitrogenous base
- C. Sugar-nitrogenous base
- D. Phosphate-nitrogenous base

10) In DNA, adenine (A) pairs with___while in RNA with_____:

- A. Uracil (U), Thymine (T)
- B. Cytosine (C), Uracil (U)
- C. Thymine (T), Guanine (G)
- D. Thymine (T), Uracil (U)

11) Lipids

A. Soluble water

B. Insoluble in water

C. Hydrophilic

D. All are correct

12) _____ is the process of splitting of a bond within a large molecule by the addition of water.

A. Dehydration

B. Diffusion

C. Hydrolysis

D. Phosphorylation

13) _____ is the process in which water is removed when two monomers join to form a macromolecule.

A. Hydrolysis

B. Dehydration

C. Osmosis

D. Diffusion

14) Which type of lipid has four fused carbon rings?

A. Cholesterol

B. Triglyceride

C. Phospholipid

D. Maltose

15) What is the final three-dimensional shape of a protein called?

- A. Quaternary structure
- B. Tertiary structure
- C. Secondary structure
- D. Primary structure

16) What are the components of a nucleotide?

- A. Glucose, cholesterol, triglyceride
- B. Phosphate, glucose, fatty acid
- C. Phosphate, hexose sugar, nitrogen bases
- D. Phosphate, pentose sugar, nitrogen bases

17) The organ system is made of:

- A. Atoms
- B. Individuals
- C. Organs
- D. Organisms

18) Which statement is CORRECT about ribosomes?

- A. Ribosomes are particles made of mRNA and protein
- B. Ribosomes are synthesized in the cell membrane
- C. Ribosomes are found either in the cytoplasm or bound to ER and nuclear membrane
- D. All

19) Water-hating molecules are called _____ while water-loving molecules are called _____:

- A. Hydrophilic, hydrolytic
- B. Hydrophobic, hydrophilic
- C. Hydrocarbons and hydrophilic
- D. Hydrophobic, hydrolytic

20) Which of the following is NOT true for Glycogen?

- A. It is energy-storing carbohydrates
- B. It is a polysaccharide
- C. It is a component of the plant cell wall
- D. None of the above

21) Gene is _____

- A. a segment of DNA
- B. a segment of DNA and histone
- C. a segment of DNA , RNA and histone
- D. all of the above

22) What is the function of DNA?

- A. to help in the synthesis of protein
- B. to assist in the release of energy
- C. to control the heredity
- D. None of these

23) What is the function of the nucleus?

- A. Supports and protects the cell
- B. Controls the cell
- C. Controls what enters and leaves the cell
- D. Metabolic reactions occur inside

24) Amoeba is an example of:

- A. Unicellular eukaryotic organism
- B. Unicellular prokaryotic organism
- C. Multicellular eukaryotic organism
- D. Multicellular prokaryotic organism

25) Who are the main producers in an ecosystem?

- A. Green Plants
- B. Animals
- C. Fungi and bacteria
- D. Sometimes all the above

26) Which one of the following is NOT an organelle?

- A. Mitochondria
- B. Ribosome
- C. Golgi complex
- D. Lysosomes

32) In RNA, Guanine (G) pairs with_____while in DNA with_____:

- A. Uracil (U), Cytosine (C)
- B. Cytosine (C), Cytosine (C)
- C. Guanine (G), Cytosine (C)
- D. Thymine (T), Adenine (A)

33) Which of these cellular structures are NOT present in bacteria?

- A. Nucleus
- B. Endoplasmic reticulum
- C. Lysosomes
- D. All

34) Which of the following is an example of quaternary structure of protein?

A. Hemoglobin

B. Cholesterol

C. Cellulose

D. Glucose

35) Fatty acids and glycerol constitutes

A. True fats and phospholipids

B. Monosaccharides

C. Amino acids

D. Quaternary proteins

35) Estradiol is a

- A. True fat
- B. Carbohydrate
- C. Phospholipid
- D. Steroid lipid

36) Fatty acids having low melting points are called

- A. Unsaturated
- B. Polysaccharides
- C. Monosaccharides
- D. Saturated

37) Cell membrane phospholipids are fats which are made of _____.

- A. One fatty acids and glycerol
- B. Three fatty acids and carbohydrates
- C. Amino acids and glycerol
- D. Two fatty acids and glycerol

