MARYLAND BIOLOGY · UNIT 1 · 25 QUESTIONS

Cells and Molecular Biology — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Which organelle produces most of a cell ATP**

- A Nucleus
- B Mitochondrion
- C Ribosome
- D Golgi apparatus

Understand It with Pulse | Flag a mistake

2 **The organelle where proteins are assembled from amino acids is the**

- A Lysosome
- B Ribosome
- C Vacuole
- D Cell membrane

Understand It with Pulse | Flag a mistake

3 **The structure that controls which substances enter and leave a cell is the**

A Vacuole

B Nucleus

C Cell membrane

D Cytoskeleton

Understand It with Pulse | Flag a mistake

4 **In an animal cell most of the DNA is stored in the**

A Mitochondrion

B Ribosome

C Golgi apparatus

D Nucleus

Understand It with Pulse | Flag a mistake

5 **The organelle that packages proteins for transport out of a cell is the**

- A Golgi apparatus
- B Lysosome
- C Nucleus
- D Vacuole

Understand It with Pulse | Flag a mistake

6 **The organelle that breaks down worn out cell parts with enzymes is the**

- A Ribosome
- B Lysosome
- C Mitochondrion
- D Cell membrane

Understand It with Pulse | Flag a mistake

7 **In a plant cell photosynthesis takes place in the**

A Mitochondrion

B Nucleus

C Chloroplast

D Ribosome

Understand It with Pulse | Flag a mistake

8 **The large organelle that stores water in a plant cell is the**

A Golgi apparatus

B Lysosome

C Mitochondrion

D Central vacuole

Understand It with Pulse | Flag a mistake

9 **A prokaryotic cell differs from a eukaryotic cell because it has no**

A Membrane bound nucleus

B Cell membrane

C Ribosomes

D DNA

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10 **Which statement is part of cell theory**

A All living things are made of one or more cells

B Cells can form from nonliving matter

C Only animals are made of cells

D Cells are all identical in size

Understand It with Pulse | Flag a mistake

11 **Diffusion is the movement of particles from an area of high concentration to an area of**

A Low concentration

B High pressure

C Low temperature

D High energy

Understand It with Pulse | Flag a mistake

12 **Osmosis is the diffusion of which substance across a cell membrane**

A Glucose

B Water

C Oxygen

D Carbon dioxide

Understand It with Pulse | Flag a mistake

13 **Active transport moves substances against a concentration gradient and requires**

A Light

B Heat

C ATP

D Water

Understand It with Pulse | Flag a mistake

14 **An enzyme speeds up a chemical reaction in a cell by**

A Raising the temperature of the whole cell

B Being used up in the reaction

C Lowering the activation energy needed

D Adding energy to the products

Understand It with Pulse | Flag a mistake

15 **The part of an enzyme where a substrate binds is called the**

- A Active site
- B Cell wall
- C Product site
- D Membrane pore

Understand It with Pulse | Flag a mistake

16 **Very high temperature can stop an enzyme from working because it causes the enzyme to**

- A Multiply
- B Denature
- C Replicate
- D Photosynthesize

Understand It with Pulse | Flag a mistake

17 **In a DNA molecule the base adenine always pairs with**

A Guanine

B Cytosine

C Thymine

D Uracil

Understand It with Pulse | Flag a mistake

18 **The shape of a DNA molecule is best described as a**

A Single strand

B Triple helix

C Flat sheet

D Double helix

Understand It with Pulse | Flag a mistake

19 **The monomer that makes up a protein is an**

A Amino acid

B Fatty acid

C Nucleotide

D Glucose unit

Understand It with Pulse | Flag a mistake

20 **The monomer that makes up a nucleic acid is a**

A Amino acid

B Nucleotide

C Fatty acid

D Glycerol unit

Understand It with Pulse | Flag a mistake

21 **The process in which a DNA sequence is copied into messenger RNA is called**

- A Translation
- B Replication
- C Mutation
- D Transcription

Understand It with Pulse | Flag a mistake

22 **During translation the molecule that carries an amino acid to a ribosome is**

- A Transfer RNA
- B DNA
- C Glucose
- D ATP

Understand It with Pulse | Flag a mistake

23 **A group of three bases on messenger RNA that codes for one amino acid is a**

- A Gene
- B Chromosome
- C Codon
- D Anticodon

Understand It with Pulse | Flag a mistake

24 **The phase of mitosis in which sister chromatids are pulled apart is**

- A Prophase
- B Anaphase
- C Telophase
- D Interphase

Understand It with Pulse | Flag a mistake

25

One cell divides by mitosis four times in a row with no cells dying How many cells result

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. B
2. B
3. C
4. D
5. A
6. B
7. C
8. D
9. A
10. A
11. A
12. B
13. C
14. C
15. A
16. B
17. C
18. D
19. A
20. B
21. D
22. A
23. C
24. B
25. 16

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