NOVA SCOTIA BIOLOGY 11 · UNIT A

Matter and Energy for Life — Practice Test

Nova Scotia Biology 11 • 25 questions

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 **A plant makes 6 molecules of glucose in a test. Each glucose stores 12 units of energy in the model used here. The total energy stored, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A plant makes 5 molecules of glucose in a test. Each glucose stores 10 units of energy in the model used here. The total energy stored, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A leaf sample produces 7 units of oxygen per hour. Over 9 hours the oxygen produced, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A leaf sample produces 3 units of oxygen per hour. Over 14 hours the oxygen produced, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A cell breaks down 2 glucose molecules. Each glucose yields 2 ATP in this simplified model. The total ATP made is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **Photosynthesis takes place mainly in the**

A chloroplast

B mitochondrion

C nucleus

D vacuole

Understand It with Pulse | Flag a mistake

7 **The main gas taken in by a plant for photosynthesis is**

A oxygen

B carbon dioxide

C nitrogen

D hydrogen

Understand It with Pulse | Flag a mistake

8 **The main energy-carrying molecule made in a cell is**

A DNA

B glucose only

C ATP

D water

Understand It with Pulse | Flag a mistake

9 **An enzyme speeds up a reaction by**

A raising activation energy

B being used up

C changing the products

D lowering activation energy

Understand It with Pulse | Flag a mistake

10 **Diffusion is the movement of particles from**

A high concentration to low concentration

B low concentration to high concentration

C cold to hot only

D solid to gas only

Understand It with Pulse | Flag a mistake

11 **Osmosis is the diffusion of**

A salt across a solid wall

B water across a membrane

C glucose through air

D oxygen through rock

Understand It with Pulse | Flag a mistake

12 **The cell membrane is best described as**

A fully open

B fully closed

C selectively permeable

D made of protein only

Understand It with Pulse | Flag a mistake

13 **Cellular respiration releases energy from**

A water only

B carbon dioxide only

C sunlight only

D glucose and oxygen

Understand It with Pulse | Flag a mistake

14 **A plant cell wall is made mainly of**

A cellulose

B starch only

C protein only

D fat only

Understand It with Pulse | Flag a mistake

15 **Mitochondria are the site of most**

A photosynthesis

B cellular respiration

C protein storage

D cell division

Understand It with Pulse | Flag a mistake

16 **Chlorophyll is the pigment that**

A carries oxygen in blood

B digests food

C absorbs light for photosynthesis

D builds cell walls

Understand It with Pulse | Flag a mistake

17 **Active transport moves substances**

A down a gradient with no energy

B only in dead cells

C only as water

D against a concentration gradient using energy

Understand It with Pulse | Flag a mistake

18 **The reactants of photosynthesis are**

A carbon dioxide and water

B glucose and oxygen

C oxygen and water only

D glucose and water only

Understand It with Pulse | Flag a mistake

19 **A catalyst is a substance that**

A is always a product

B speeds a reaction without being used up

C slows every reaction

D is made of glucose

Understand It with Pulse | Flag a mistake

20 **Lipids are an important part of the**

A cell wall of animals

B nucleus only

C cell membrane

D chloroplast pigment

Understand It with Pulse | Flag a mistake

21 **Enzyme activity is highest at the enzyme optimum**

A pressure only

B light only

C mass only

D temperature and pH

Understand It with Pulse | Flag a mistake

22 **ATP stores energy in bonds between**

A phosphate groups

B sugar rings only

C bases

D water molecules

Understand It with Pulse | Flag a mistake

23 **The organelle that holds a plant cell shape and protects it is the**

- A cell wall
- B vacuole only
- C ribosome
- D lysosome

Understand It with Pulse | Flag a mistake

24 **Ribosomes are the site of**

- A photosynthesis
- B protein synthesis
- C energy storage
- D water storage

Understand It with Pulse | Flag a mistake

25 **The fluid part of a cell where reactions happen is the**

A cell wall

B chloroplast

C cytoplasm

D vacuole

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	72	**10.**	A	**19.**	B
2.	50	**11.**	B	**20.**	C
3.	63	**12.**	C	**21.**	D
4.	42	**13.**	D	**22.**	A
5.	4	**14.**	A	**23.**	A
6.	A	**15.**	B	**24.**	B
7.	B	**16.**	C	**25.**	C
8.	C	**17.**	D		
9.	D	**18.**	A		

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