PRINCE EDWARD ISLAND BIOLOGY 11 · UNIT A

Macromolecules and Cell Transport — Practice Test

Prince Edward Island 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 cube shaped cell has side length 1 micrometres. Its surface area divided by its volume is what value, in inverse micrometres**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A polypeptide chain is made of 10 amino acids joined in a row. How many peptide bonds join the amino acids in the chain**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A solution is made by dissolving 5 grams of salt in 100 millilitres of water. What is the concentration of the solution in grams per 100 millilitres**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **Each triglyceride molecule contains 3 fatty acid chains. How many fatty acid chains are in 2 triglyceride molecules in total**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A cell placed in pure water will tend to**

A gain water by osmosis

B lose water by osmosis

C stay unchanged always

D burst in all cases

Understand It with Pulse | Flag a mistake

6

A concentration gradient exists when a substance is

A equally spread everywhere

B absent

C more concentrated in one area than another

D solid only

Understand It with Pulse | Flag a mistake

7

A red blood cell placed in a very salty solution will tend to

A gain water and swell

B lose water and shrink

C stay unchanged

D divide

Understand It with Pulse | Flag a mistake

8

Active transport moves substances

A down a gradient without energy

B only with water

C against a concentration gradient using energy

D only in plants

Understand It with Pulse | Flag a mistake

9

Amino acids are the building blocks of

A carbohydrates

B lipids

C proteins

D nucleic acids

Understand It with Pulse | Flag a mistake

10 **Bread and pasta are rich in**

A carbohydrates

B proteins

C lipids

D nucleic acids

Understand It with Pulse | Flag a mistake

11 **Butter and olive oil are rich in**

A carbohydrates

B lipids

C proteins

D nucleic acids

Understand It with Pulse | Flag a mistake

12 **Channel proteins in a membrane help substances cross by providing a**

A source of energy

B passage through the membrane

C new membrane

D chemical reaction

Understand It with Pulse | Flag a mistake

13 **DNA and RNA are examples of**

A proteins

B lipids

C carbohydrates

D nucleic acids

Understand It with Pulse | Flag a mistake

14 **Egg white and lean meat are rich in**

A carbohydrates

B lipids

C proteins

D vitamins only

Understand It with Pulse | Flag a mistake

15 **Endocytosis brings material into a cell by**

A diffusion through a pore

B pumping ions only

C wrapping it in membrane

D osmosis only

Understand It with Pulse | Flag a mistake

16 **Equilibrium in diffusion means particles are**

A no longer moving

B all on one side

C converted to energy

D evenly distributed overall

Understand It with Pulse | Flag a mistake

17 **Exocytosis releases material from a cell by**

A diffusion through a pore

B active pumping only

C breaking the membrane

D fusing a vesicle with the membrane

Understand It with Pulse | Flag a mistake

18 **A cube shaped cell has side length 2 micrometres. Its surface area divided by its volume is what value, in inverse micrometres**

ANSWER

Understand It with Pulse | Flag a mistake

19 **A polypeptide chain is made of 25 amino acids joined in a row. How many peptide bonds join the amino acids in the chain**

ANSWER

Understand It with Pulse | Flag a mistake

20 **A solution is made by dissolving 12 grams of salt in 200 millilitres of water. What is the concentration of the solution in grams per 100 millilitres**

ANSWER

Understand It with Pulse | Flag a mistake

21 **Each triglyceride molecule contains 3 fatty acid chains. How many fatty acid chains are in 4 triglyceride molecules in total**

ANSWER

Understand It with Pulse | Flag a mistake

22 **A cube shaped cell has side length 3 micrometres. Its surface area divided by its volume is what value, in inverse micrometres**

ANSWER

Understand It with Pulse | Flag a mistake

23 **A polypeptide chain is made of 50 amino acids joined in a row. How many peptide bonds join the amino acids in the chain**

ANSWER

Understand It with Pulse | Flag a mistake

24 **A solution is made by dissolving 9 grams of salt in 300 millilitres of water. What is the concentration of the solution in grams per 100 millilitres**

ANSWER

Understand It with Pulse | Flag a mistake

25 **Each triglyceride molecule contains 3 fatty acid chains. How many fatty acid chains are in 5 triglyceride molecules in total**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	6.00	**10.**	A	**19.**	24
2.	9	**11.**	B	**20.**	6.00
3.	5.00	**12.**	B	**21.**	12
4.	6	**13.**	D	**22.**	2.00
5.	A	**14.**	C	**23.**	49
6.	C	**15.**	C	**24.**	3.00
7.	B	**16.**	D	**25.**	15
8.	C	**17.**	D		
9.	C	**18.**	3.00		

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