MANITOBA PHYSICS 30S · UNIT C · 25 QUESTIONS

Mechanics — 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 **A race car starts at 3 metres per second and accelerates at 6 metres per second squared for 3 seconds. Its final speed, in metres per second, is**



ANSWER

Understand It with Pulse | Flag a mistake

2 **A mass of 2 kilograms accelerates at 4 metres per second squared. The net force, in newtons, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A mass of 8 kilograms moves at 2 metres per second. Its kinetic energy, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **Use g = 10 metres per second squared . A mass of 6 kilograms at height 2 metres has gravitational potential energy , in joules , of**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A wave has frequency 35 hertz and wavelength 5 metres. Its speed, in metres per second, is**



ANSWER _____

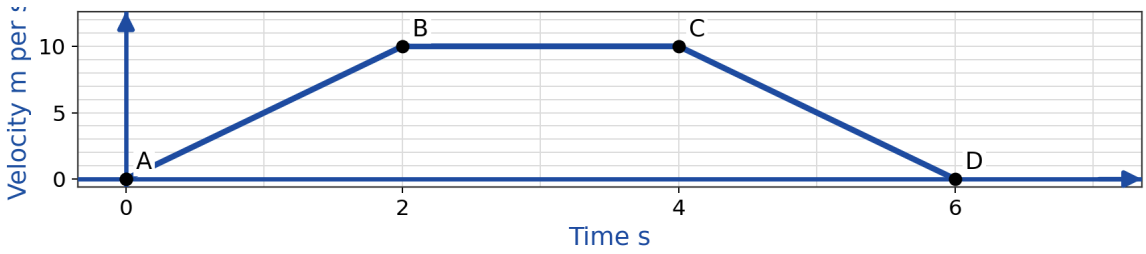
Understand It with Pulse | Flag a mistake

6 **A current of 2 amperes flows through a resistor of 5 ohms. The voltage, in volts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **The graph shows velocity against time. The displacement from 0 seconds to 6 seconds, in metres, is**



ANSWER

Understand It with Pulse | Flag a mistake

8 **An object travels 160 metres in 5 seconds. Its speed, in metres per second, is**

ANSWER

Understand It with Pulse | Flag a mistake

9 **An object starts at 3 metres per second and accelerates at 4 metres per second squared for 3 seconds. Its final speed, in metres per second, is**

ANSWER

Understand It with Pulse | Flag a mistake

10 **A wooden crate with a mass of 10 kilograms accelerates at 6 metres per second squared. The net force, in newtons, is**



ANSWER

Understand It with Pulse | Flag a mistake

11 **A mass of 6 kilograms moves at 6 metres per second. Its kinetic energy, in joules, is**

ANSWER

Understand It with Pulse | Flag a mistake

12 **Use g = 10 metres per second squared . A mass of 2 kilograms at height 2 metres has gravitational potential energy , in joules , of**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **A wave has frequency 35 hertz and wavelength 3 metres. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **A current of 4 amperes flows through a resistor of 3 ohms. The voltage, in volts, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **A car travels 80 metres in 2 seconds. Its speed, in metres per second, is**



ANSWER

Understand It with Pulse | Flag a mistake

16 **The molecule that carries genetic instructions is**

A RNA only

B protein only

C DNA

D glucose

Understand It with Pulse | Flag a mistake

17 **A change in the genetic material of an organism is a**

A adaptation

B variation

C selection

D mutation

Understand It with Pulse | Flag a mistake

18 **The passing of traits from parents to offspring is**

A heredity

B evolution

C homeostasis

D metabolism

Understand It with Pulse | Flag a mistake

19 **The maintenance of a stable internal environment is**

A photosynthesis

B homeostasis

C fermentation

D osmosis

Understand It with Pulse | Flag a mistake

20 **The movement of water across a partially permeable membrane is**



A diffusion

B active transport

C osmosis

D photosynthesis

Understand It with Pulse | Flag a mistake

21 **The organ that pumps blood around the body is the**

A liver

B lung

C kidney

D heart

Understand It with Pulse | Flag a mistake

22 **The organ where oxygen enters the blood is the**

A lung

B heart

C liver

D stomach

Understand It with Pulse | Flag a mistake

23 **The chemical symbol for water is**

- A CO_2
- B H_2O
- C O_2
- D NaCl

Understand It with Pulse | Flag a mistake

24 **The chemical symbol for carbon dioxide is**

- A H_2O
- B O_2
- C CO_2
- D CO

Understand It with Pulse | Flag a mistake

25 **The gas plants absorb from the air for photosynthesis is**



A oxygen

B nitrogen

C hydrogen

D carbon dioxide

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	21	**10.**	60	**19.**	B
2.	8	**11.**	108	**20.**	C
3.	16	**12.**	40	**21.**	D
4.	120	**13.**	105	**22.**	A
5.	175	**14.**	12	**23.**	B
6.	10	**15.**	40	**24.**	C
7.	40	**16.**	C	**25.**	D
8.	32	**17.**	D		
9.	15	**18.**	A		

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