MANITOBA PHYSICS 30S · UNIT B · 25 QUESTIONS

Nature of Light — 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 wagon of mass 10 kilograms moves at 6 metres per second. Its kinetic energy, in joules, is**



ANSWER _____

Understand It with Pulse | Flag a mistake

2 **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

3 **A wave has frequency 35 hertz and wavelength 2 metres. Its speed, in metres per second, is**

ANSWER

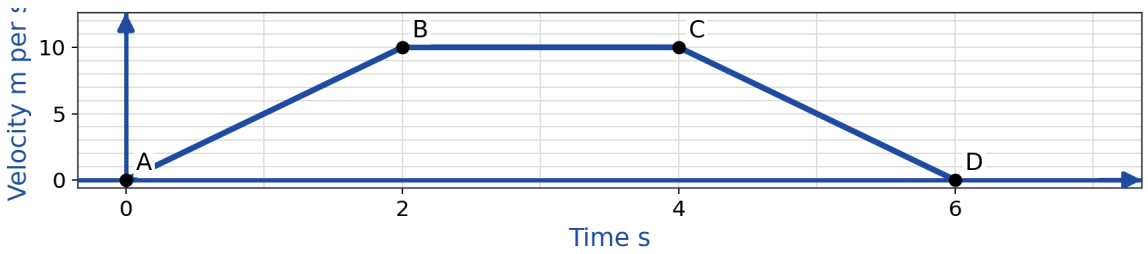
Understand It with Pulse | Flag a mistake

4 **A current of 4 amperes flows through a resistor of 8 ohms. The voltage, in volts, is**

ANSWER

Understand It with Pulse | Flag a mistake

5 **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

6 **A race car travels 200 metres in 2 seconds. Its speed, in metres per second, is**



ANSWER

Understand It with Pulse | Flag a mistake

7 **An object 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

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

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **A mass of 8 kilograms moves at 4 metres per second. Its kinetic energy, in joules, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

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



ANSWER

Understand It with Pulse | Flag a mistake

11 **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

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

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **An object travels 120 metres in 4 seconds. Its speed, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

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

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **A car 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

16 **The basic unit of life is the**

A organ

B cell

C tissue

D organism

Understand It with Pulse | Flag a mistake

17 **The process by which plants make food using sunlight is**

A respiration

B fermentation

C photosynthesis

D digestion

Understand It with Pulse | Flag a mistake

18 **The process that releases energy from food in cells is**

A photosynthesis

B osmosis

C diffusion

D cellular respiration

Understand It with Pulse | Flag a mistake

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

A DNA

B RNA only

C protein only

D glucose

Understand It with Pulse | Flag a mistake

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

A adaptation

B mutation

C variation

D selection

Understand It with Pulse | Flag a mistake

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



A evolution

B homeostasis

C heredity

D metabolism

Understand It with Pulse | Flag a mistake

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

A photosynthesis

B fermentation

C osmosis

D homeostasis

Understand It with Pulse | Flag a mistake

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



A osmosis

B diffusion

C active transport

D photosynthesis

Understand It with Pulse | Flag a mistake

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

A liver

B heart

C lung

D kidney

Understand It with Pulse | Flag a mistake

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

A heart

B liver

C lung

D stomach

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	180	**10.**	80	**19.**	A
2.	40	**11.**	175	**20.**	B
3.	70	**12.**	36	**21.**	C
4.	32	**13.**	30	**22.**	D
5.	40	**14.**	32	**23.**	A
6.	100	**15.**	15	**24.**	B
7.	21	**16.**	B	**25.**	C
8.	4	**17.**	C		
9.	64	**18.**	D		

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