

MID TERM III EXAMS 2019
S.1 PHYSICS

TIME: 1 ½ HOURS

NAME:CLASS:

INSTRUCTIONS:

- Answer ALL questions in the spaces provided
- Acceleration due to gravity, $g = 10 \text{ ms}^{-2}$
- Section A contains 20 objective questions; write the most correct answer using letters A, B, C and D in the table provided below.

1	6	11	16
2	7	12	17
3	8	13	18
4	9	14	19
5	10	15	20

SECTION A

1. Which of the following is the SI unit of force?
A. Newton B. Newton metre C. Joule D. Kilogram
2. $20,000 \text{ Kg m}^{-3}$ in g cm^{-3} is
A. 20 B. 200 C. 0.2 D. 20,000,000
3. Which of the following quantities is not a vector quantity?
A. Mass B. Velocity C. Displacement D. Momentum
4. Which of the following measures the diameter of a wire
A. metre rule B. Vernier calipers
C. Micrometer screw gauge D. Microscope
5. A ream of paper has 40 sheets and a total thickness of 2.4mm the thickness of a sheet is
A. 0.6mm B. 0.06mm C. 6mm D. 0.006mm
6. Which of the following is true about mass

- A. changes from place to place B. it's a quantity of matter contained by an object
C. has SI unit of Joules D. is a vector quantity

7. A metal cube of sides 0.03m weighs 2.42N. What is the density in Kg/m^3
A. 800 B. 7260 C. 8963 D. 400

8. What is the SI unit of time?
A. Period B. Seconds C. Minutes D. Hours

9. The density of air is 1.25kg m^{-3} , what is the mass of air in a room of 0.4m by 0.3m by 0.5m
A. 0.75kg B. 0.075kg C. 7.5kg D. 0.15kg

10. Which of the following is a fundamental quantity?
A. Weight B. Seconds C. Time D. Pressure

11. A body has a mass of 0.2kg and density 25Kg/m^3 calculate its volume
A. 0.8m^3 B. 0.0008m^3 C. 0.008m^3 D. 80m^3

12. The force that opposes motion is called
A. weight B. braking force
C. action D. frictional force

13. Which of the following are SI units
A. Mass, length, time B. Seconds, metres, grammes
C. Metres, Kilograms, seconds D. Time, length, kilograms

14. Which of the following is true about weight?
A. its constant when a body is moved from the earth to the moon
B. it changes when a body is moved from earth to the moon
C. its measured using a beam balance
D. it does not depend on gravity

15. A body of mass 10kg is taken to the moon. What will its weight be if the moon's gravitational pull is 1.66N/Kg
A. 166N B. 16.6N C. 6N D. 1.66N

16. The force that makes an object move in a circle is called
A. Viscous force B. weight
C. circular force D. centripetal force

17. The gradient of a velocity – time graph represents the
A. speed of the body B. velocity of the body
C. acceleration of the body D. distance covered by the body

18. Convert 25cm^3 into m^3

A. 250,000

B. 250

C. 0.25

D. 0.000025

19. A body is said to be moving with uniform velocity when the rate of change of

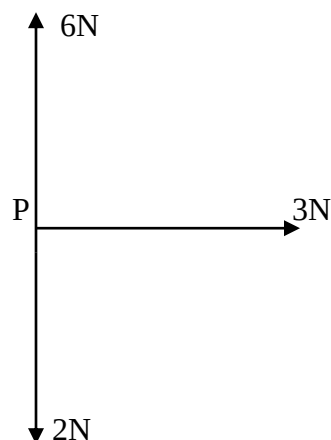
A. acceleration with time is constant

B. Velocity with time is constant

C. distance with time is constant

D. displacement with time is constant

20.



In the diagram above, the magnitude of the resultant force acting on particle P is

A. 1N

B. 5N

C. 7N

D. 11N

SECTION B

21. The initial volume reading of water in a measuring cylinder is 150cm^3 , when a stone of mass 250g is immersed in water, the volume reading of water is 250cm^3 , calculate

(i) the volume of the stone

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(ii) density of the stone

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(iii) Relative density of the stone

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22. (a) A stone is thrown vertically upwards with an initial velocity of 14 ms^{-1}

(i) Find the maximum height reached

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(ii) The time taken before it reaches the ground

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(b) Define the following terms

(i) Distance

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(ii) Displacement

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23. List three fundamental quantities of measurements and the corresponding SI units

Quantity	SI unit
(i)	
(ii)	
(iii)	

24. (a) Write the following in standard form:

- (i) 100,000 =
- (ii) 428,000 =
- iii) 0.0046 =

(b) Write the following to two significant figures

- (i) 1830 =
- (ii) 0.578 =
- iii) 6890 =

25. (a) Define the following terms

(i) density

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(ii) Relative density

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(b) Find the density of a cuboid with dimensions 10cm x 10cm x 10cm if its mass is 150g
in

(i) Kgm^{-3}

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(ii) g cm^{-3}

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E N D