

SUB :PHYSICS,, UNIT – I,, CLASS: XI,2024

SLIP TEST -1

Total mark: 20 m Time : 45 minutes

Section – A

Choose the correct Answer ( 3 x 1 = 3 )

1. Impulse unit is .....  
a) N b) S c) Ns d) m/s
2. Types of Error .....  
a) 1 b) 2 c) 3 d) 4
3. Mass SI Unit .....  
a) Kg b) k/g c) N d) Ns

Answer Any FOUR Questions (4 x 3 = 12 )

4. Briefly explain the types of physical quantities
5. How will you measure the diameter of the moon using parallax method
6. What are Gross Error.
7. Find the dimensional formula Gravitational constant
8. Find the dimensional formula Planck's constant
9. Check the correctness of the equation  $\frac{1}{2} mv^2 = mgh$ .

Section – B (1 x 5 = 5)

Answer All the Questions

10. a) Explain Limitations analysis  
(OR)  
b) If the value of universal gravitational constant in SI is  $6.6 \times 10^{-11} \text{ Nm}^2 \text{ Kg}^{-2}$  then find its value in CGS system?

prepared by

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**SLIP TEST QUESTION PAPER –XL – PHYSICS –UNIT -8-2024****Total mark: 20 m Time : 45 minutes****Choose the correct Answer ( 3 x 1 = 3 )**

1. All natural processes are .....
- a) irreversible b) reversible c) remains constant d) zero
2. The triple point of water is .....K
- a) 273 (b) 269 (c) 0 (d) -273
3. Solid to liquid in state
- (a) melting (b) sublimation (c) freezing (d) evaporation

**Answer Any FOUR Questions (4 x 3 = 12 )**

4. State Stefan-Boltzmann law
5. What is Wien's law
6. What is black body
7. Define Heat Engine
8. State Clausius form of the second law of thermodynamics
9. Give the sign convention for Q and W

**Answer All the Questions ( 1 X 5 = 5 )**

10. a) Explain in detail the isothermal process

(Or)

- b) A gas expands from volume  $1\text{m}^3$  to  $2\text{m}^3$  at constant atmospheric pressure (i) Calculate the work done by the gas (ii) Represent the work done in PV diagram

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SUB : PHYSICS,,, UNIT -9 CLASS: XI

SLIP TEST –VII

Total mark: 20 m Time : 45 minutes

Choose the correct Answer ( 3 x 1 = 3 )

1.The increasing the temperature will .....the r.m.s speed of molecule

a) increases b) decreases c) remains constant d) zero

2. A particle moving over a plane has .... Degrees of freedom

a) 2 (b) 3 (c) 5 (d) 7

3.Which of the following gases will have least rms speed at a given temperature ?

(a) hydrogen (b) nitrogen (c) oxygen (d) carbon di oxide

Answer Any FOUR Questions (4 x 3 = 12 )

4. Define the term degrees of freedom

5. Why moon has no atmosphere?

6. State the law of equipartition of energy

7. Why no hydrogen in Earth's atmosphere

8. A football at 27°C has 0.5 mole of air molecules .Calculate the internal energy of air in the ball

9. Explain in detail the kinetic interpretation of temperature

Answer All the Questions ( 1 X 5 = 5 )

10. a) Derive the expression of pressure exerted by the gas on the walls of the container

(Or)

b) Derive the ratio of two specific heat capacities of monoatomic ,diatomic and triatomic molecules

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