

NOTE: Attempt all questions of Section-A by filling the corresponding bubble on the MCQ ANSWER SHEET and return it to the Superintendent within given time, even if you have not attempted any question.

**SECTION-A**

Time: 20 Minutes

Marks: 12

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1. One joule per second is equal to ..... A) 1 newton, B) 1 pascal, C) 1 watt, D) 1 candela
  2. The density of mercury in  $\text{kg.m}^{-3}$  is ..... ✓ A) 13600, B) 6000, C) 1000, D) 2000
  3.  $37^\circ\text{C}$  = .....  $^\circ\text{F}$  A) 96.6, B) 97.6, C) 98.6, D) 99.6
  4. Melting point of lead is ..... ✓ A)  $327^\circ\text{C}$ , B)  $961^\circ\text{C}$ , C)  $0^\circ\text{C}$ , D)  $420^\circ\text{C}$
  5. Dark rough surfaces are generally good for ..... of heat.  
A) reflection, B) radiation, C) conduction, D) convection
  6. Light travels about ..... in one year. ✓ A)  $9.5 \times 10^{15}\text{m}$ , B)  $9.5 \times 10^{20}\text{m}$ , C)  $9.5 \times 10^{25}\text{m}$ , D)  $3 \times 10^8\text{m}$
  7. ..... is not a derived quantity. A) area, B) volume, C) density, ✓ D) length
  8. The slope of displacement-time graph is called ..... A) speed, B) acceleration, C) displacement, D) velocity
  9. If  $m = 0.25\text{kg}$  and  $a = 10\text{ms}^{-2}$  then  $F =$  ..... ✓ A) 2.5N, B) 25N, C) 250N, D) 0.25N
  10. Clock-wise torque is taken as ..... A) positive, ✓ B) negative, C) zero, D) parallel
  11. The mass of earth is approximately ..... A)  $6 \times 10^{23}\text{kg}$ , ✓ B)  $6 \times 10^{24}\text{gm}$ , C)  $6 \times 10^{25}\text{kg}$ , D)  $6 \times 10^{24}\text{kg}$
  12.  $1\text{ Newton} \times 1\text{ Meter} =$  ..... A) 1 watt, B) 1 pascal, C) 1 joule, ✓ D) 1 mole