Time Allowed : 3 Hrs

PHYSICS (9th)
(Fresh / Reappear)

Total Marks : 65

(Question Paper 1)

Note: There are *THREE* sections in this paper i.e A, B & C. Attempt section A and return it to the superintendent within the given time.

Time: 20 Min   **SECTION –A**   **Marks: 12**

Q.No.1: You have four choices for each objective type question as Ⓐ, Ⓑ, Ⓒ and Ⓓ. The choice which you think is correct fill that circle in front of the question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

i. Standard form of 0.000313 is _____.

   Ⓐ 31.3×10^{-4} ● 3.13×10^{-4} Ⓒ 3.13×10^{-3} Ⓓ 3.13×10^{4}

ii. _____ is not a heat insulating material.

   Ⓐ Wood   ● Soft iron   Ⓒ Rubber   Ⓓ Plastic

iii. $1kg \times 1m/sec^2 =$ _____

   Ⓐ 1 Pascal   Ⓑ 1 Watt   ● 1 Newton   Ⓓ 1 Joule

iv. The SI unit of temperature is _____

   Ⓐ cd   ● °C   Ⓒ °K   Ⓓ °F

v. A 1kg mass has a KE of 1 joule when its speed is _____

   Ⓐ 0.45m/sec   ● 1m/sec   Ⓒ 4.4m/sec   Ⓓ 1.4m/sec

vi. How many cubic centimeters are there in a liter?

   Ⓐ $10cm^3$ Ⓑ $100cm^3$ ● $1,000cm^3$ Ⓓ $10,000cm^3$

vii. The rate of change of velocity is called _____.

   Ⓐ Speed   Ⓑ Distance   ● Acceleration   Ⓓ Displacement

viii. Mass × velocity = _____

   ● Momentum   Ⓑ Speed   Ⓒ Force   Ⓓ Power

ix. In the first condition of equilibrium _____.

   Ⓐ $\Sigma \vec{W} = 0$ Ⓑ $\Sigma \vec{p} = 0$ Ⓒ $\Sigma \vec{T} = 0$ Ⓓ $\Sigma \vec{F} = 0$

x. The value of "g" at the surface of moon is _____.

   Ⓐ $8.9m/sec^2$ Ⓑ $9.8m/sec^2$ Ⓒ $4.9m/sec^2$ ● $1.63m/sec^2$

xi. Density of mercury is _____ $g.cm^{-3}$.

   Ⓐ 13.6   Ⓑ 136   Ⓒ 1360   ● 13600

xii. Boiling point of ice is _____.

   Ⓐ 0°C   Ⓑ 10°C   Ⓒ 50°C   ● 100°C

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Time allowed: 2:40 Hrs

Marks : 53

SECTION- B & C

Note: Attempt section B & C accordingly.

SECTION –B
Marks: 32

Q.No 2. Attempt any EIGHT parts of the following. All parts carry equal marks.

i. Why liquid have two co-efficient of expansion?

ii. Give an example of an accelerated body moving with a uniform speed.

iii. Why area is called derived quantity?

iv. How can we find the volume of a small pebble with the help of measuring cylinder?

v. Write any four advantages of friction.

vi. Why does a helicopter has a second rotor on its tail?

vii. What provide the force that produces centripetal acceleration in orbit?

viii. Define Power and Potential Energy.

ix. State two applications of atmospheric pressure used at home.

x. If a hot piece of thick glass is dipped in cold water, it breaks. Give reason.

xi. How heat losses are reduced in a Thermos Flask?

SECTION –C
Marks: 21

Note: Attempt any THREE of the following. All questions carry equal marks

Q.No:3.a) Define hydrostatic pressure. Also show that P=ρgh.   4

b) How much heat is required to increase the temperature of 0.7kg of water from 10°C to 50°C?   3

Q.No:4.a) Define vector quantities. Explain resolution of vectors.   4

b) A bullet of mass 35 grams travels at a speed of 1300m/sec. Calculate its K.E.   3

Q.No:5.a) By using law of universal gravitation derive a formula to find mass of earth.   4

b) A body is thrown vertically upward with a speed of 32m/sec. How high will it rise?   3

Q.No:6.a) State and explain Newton's third law of motion.   4

b) What is the pressure of water at a depth of 1550cm?   3