

Student Roll Number

Roll number entry boxes

Example Student Roll No.

Example roll number: 1 3 5 2 4 6

P-210

6x10 grid of circles for student roll number entry

6x10 grid of circles with some filled in, corresponding to the example roll number 135246

Sign. and Seal of Supdt.

Paper: PHYSICS
Part: 9th
Time: 20 Minutes
Marks: 12
Exam Code: 9171

NOTE
FILL IN THE
CORRECT CIRCLE ONLY

- 1. Density of mercury is gm/cm³.
A) 1.36, B) 13.6, C) 136, D) 13600,
2. How many cubic centimeters are there in a litre?
A) 10000, B) 1000, C) 100, D) 10,
3. Mass x velocity =
A) speed, B) power, C) force, D) momentum,
4. The matter of our sun is in state,
A) solid, B) liquid, C) gas, D) plasma,
5. Average speed of a bus is 20m/sec. How far can it travel in 10 seconds?
A) 100m, B) 150m, C) 200m, D) 250m,
6. Centrifugal force is given by F_c =
A) mv²/r, B) -mv²/r, C) mv/r², D) -mv/r²,
7. SI unit of moment of force is
A) Nm⁻², B) N/m², C) Nm, D) Nm¹,
8. Anti clockwise torque is taken
A) zero, B) negative, C) parallel, D) positive,
9. The value of "g" at the surface of moon is
A) 1.63m/sec², B) 4.9m/sec², C) 8.9m/sec², D) 9.8m/sec²,
10. 1 Newton x 1 meter =
A) 1 joule, B) 1 watt, C) 1 pascal, D) 1 newton,
11. Temperature of a normal human body is
A) 0K, B) 32°F, C) 37°C, D) 89°F,
12. is the best heat conductor.
A) aluminium, B) tin, C) copper, D) soft iron,

4x12 grid of circles for multiple choice answers, with some filled in

Time: 2 Hours 40 Minutes

SECTION-B

Marks: 32

1. Attempt any eight of the following. All carry equal marks.
 - i. Why are white clothes preferred in summer? Explain briefly.
 - ii. State two applications of atmospheric pressure used at home.
 - iii. Why have liquids two coefficients of expansion?
 - iv. Why is area called a derived quantity?
 - v. Define scalars and vectors. Give examples.
 - vi. Differentiate between mass and weight.
 - vii. How can you determine the centre of gravity of an irregular shaped body?
 - viii. Define the following: One Watt, Power, Work, One Joule
 - ix. Why is it not easy to whirl a hammer by a longer chain?
 - x. Define zero error and zero correction of screw gauge.
 - xi. Derive $2as = v_2^2 - v_1^2$ by graphical method.

SECTION-C

Marks: 21

NOTE: Attempt any three of the following questions. All questions carry equal marks.

2.
 - i. By using law of universal gravitation, find mass of earth.
 - ii. What is the pressure at a depth of 1300cm below the surface of water?
3.
 - i. Define linear thermal expansion. And show that $L_T = L_0(1 + \alpha\Delta T)$
 - ii. How much heat is required to increase the temperature of 0.6kg of water from 15°C to 65°C?
4.
 - i. Define equilibrium. What are its conditions?
 - ii. A body is thrown vertically upward with a speed of 28m/sec. How high will it rise?
5.
 - i. Explain radiation of heat. Describe any two of its applications.
 - ii. A bullet of mass 30 grams travels at a speed of 1300m/sec. Find its kinetic energy.