

Time: 1:45 Hours

(New Course 2023 Annual)

Marks: 48

2- Write short answers to any Five Parts :-

(5x2=10)

- i. What is measuring cylinder? Write its uses.
- ii. Define atomic Physics.
- iii. How to use a stopwatch?
- iv. Define random motion and write one example.
- v. Define Scalars and Vectors.
- vi. Define uniform velocity.
- vii. Define momentum and write its SI unit.
- viii. Define inertia.

Ch. # 1

Ch. # 1

Ch. # 1

Ch. # 2

Ch. # 2

Ch. # 2

Ch. # 3

Ch. # 3

3- Write short answers to any Five Parts:

(5x2=10)

- i. Define resultant of forces.
- ii. What is meant by rigid body?
- iii. State principle of moments.
- iv. Define gravitational field strength.
- v. What is GPS?
- vi. Define artificial satellite.
- vii. Write SI unit of Power. Also define it.
- viii. Define efficiency.

Ch. # 4

Ch. # 4

Ch. # 4

Ch. # 5

Ch. # 5

Ch. # 5

Ch. # 6

Ch. # 6

4- Write short answers to any Five Parts:-

(5x2=10)

- i. Define density of a substance and write its formula and SI unit.
- ii. Why a wooden block floats on water?
- iii. State the two consequences of thermal expansion.
- iv. Define Celsius scale of temperature and Kelvin scale of temperature.
- v. What is thermometer? Why mercury is preferred as a thermometric substance?
- vi. Differentiate between conduction and convection.
- vii. Write the names of four faces of Leslie's cube.
- viii. Why does a cup of hot tea become cold after sometime?

Ch. # 7

Ch. # 7

Ch. # 8

Ch. # 8

Ch. # 8

Ch. # 8

Ch. # 9

Ch. # 9

Ch. # 9

SECTION-II

Note: Attempt any two questions.

5-(a) State and explain Newton's second law of motion.

Ch. # 3

(b) A train starts from rest with an acceleration of $0.5ms^{-2}$. Find its speed in kmh^{-1} , when it has moved through 100m.

Ch. # 2

6-(a) What is meant by Kinetic energy? Derive its equation.

Ch. # 6

(b) A force is acting on a body making an angle of 30° with the horizontal. The horizontal component of the force is 20 N. Find Force.

Ch. # 4

7-(a) How we can use conductors and non-conductors in houses? Explain it.

Ch. # 9

(b) The weight of a metal spoon in air is 0.48N. Its weight in water is 0.42N. Find its density.

Ch. # 7