

Section-B

Note: Answer any **EIGHT** of the following question: Each question carries 03 marks.

- Q.2 Derive the equation $S = vt + \frac{1}{2}at^2$
- Q.3 Differentiate between distance and displacement.
- Q.4 A bus is moving on a road with 15 ms and it accelerates at 5 ms^{-2} . Find the final velocity of bus after 6 seconds.
- Q.5 Describe Friction and write the types of friction.
- Q.6 A force of 3400 N is applied on a boyd of mass is 850 k.g Find the acceleration produced by the force.
- Q.7 Define couple as a pair of forces tending to produce torque.
- Q.8 State Hooke's Law.
- Q.9 What is energy? Name the different forms of energy.
- Q.10 Convert 30°C into Kelvin and Fahrenheit scale.
- Q.11 Write a note on renewable energy sources.
- Q.12 Define like and unlike forces.

Section-C

(Descriptive Answer)

Note: Ansewr any **TWO** of the following question. Each question carries 06 marks.

- Q.13 Define momentum. Explain the law of conservation fo momentum with the help of example.
- Q.14 Wate and explain Newton's Law of gravitation.
- Q.15 Write notes on any TWO of the following.
- State of equilibrium
 - Newton's Third Law of motion.
 - Mass fo Earth.