

# ADDITIONAL QUESTIONS

SECTION - A

1. A particle of mass  $m$  is moving in a circular path of radius  $r$  with a constant speed  $v$ . Calculate the change in its momentum when it moves through an angle of  $90^\circ$ .

2. A car of mass  $1000\text{ kg}$  is moving with a speed of  $20\text{ m/s}$ . Calculate the force required to stop it in a distance of  $10\text{ m}$ .

3. A ball of mass  $0.5\text{ kg}$  is moving with a speed of  $10\text{ m/s}$ . Calculate the change in its momentum when it is stopped.

4. A car of mass  $1000\text{ kg}$  is moving with a speed of  $20\text{ m/s}$ . Calculate the force required to stop it in a distance of  $10\text{ m}$ .

5. A ball of mass  $0.5\text{ kg}$  is moving with a speed of  $10\text{ m/s}$ . Calculate the change in its momentum when it is stopped.

6. A car of mass  $1000\text{ kg}$  is moving with a speed of  $20\text{ m/s}$ . Calculate the force required to stop it in a distance of  $10\text{ m}$ .

7. A ball of mass  $0.5\text{ kg}$  is moving with a speed of  $10\text{ m/s}$ . Calculate the change in its momentum when it is stopped.

8. A car of mass  $1000\text{ kg}$  is moving with a speed of  $20\text{ m/s}$ . Calculate the force required to stop it in a distance of  $10\text{ m}$ .

9. A ball of mass  $0.5\text{ kg}$  is moving with a speed of  $10\text{ m/s}$ . Calculate the change in its momentum when it is stopped.

10. A car of mass  $1000\text{ kg}$  is moving with a speed of  $20\text{ m/s}$ . Calculate the force required to stop it in a distance of  $10\text{ m}$ .