PHYSICS

1. Dimensional formula for magnetic dipole moment is

   (A) $[L^2 T^{-2}]$ (B) [L T A] (C) $[L^2 A]$ (D) $[L^2 T^2 A^{-1}]$

2. The percentage error in the determination of g from a simple pendulum experiment when effective length and time periods are measured with errors 4% and 3% respectively. Then the percentage error in g is

   (A) 7 (B) 10 (C) 2 (D) 1

3. A car travels half the distance at a speed 40 kmph and the rest half at a speed 60 kmph. The average speed of the car is

   (A) 60 kmph (B) 52 kmph

   (C) 48 kmph (D) 40 kmph

4. An aeroplane flying horizontally at a speed of 98 ms^{-1} releases an object which reaches the ground in 10 s. The angle made by the velocity of the object with the horizontal at the time of hitting the ground is

   (A) 30^0 (B) 45^0 (C) 60^0 (D) 75^0

5. Water flows in a horizontal capillary tube. The flow velocity is

   (A) same throughout the cross-section of the tube

   (B) maximum near the cylindrical wall of the tube and minimum at the middle of the cross-section

   (C) same throughout the cross-section except at the middle

   (D) zero at the cylindrical wall maximum at the middle

SPACE FOR ROUGH WORK