Model Question Pape

B.Tech and Health Scier

Part 1 – Ph

1. The dimensional formula for impulse is
(a) MLT^{-1}
(b) ML^2T^{-1}
(c) ML^2T^{-2}
(d) ML^oT^{-2}

2. The mean time period of a simple pendulum is 1.92 s
0.05 s. To express the maximum estimate of error, the
(a) T = (1.92 $\pm$0.01)s
(b) T = (1.92 $\pm$0.25)s
(c) T = (1.92 $\pm$0.05)s
(d) T = (1.92 $\pm$0.10)s

3. A motor boat moves at a steady speed of 8m/s. If th
2000W, calculate the power of the engine.
(a) 16000 W
(b) 1600 W
(c) 160 W
(d) 16 W

4. An aeroplane travelling at a speed of 500 kmph tilts
the radius of the curve?
(a) 341 km
(b) 3.41 km
(c) 0.341 km
(d) 34.1 km

5. A body of mass 500gm is tied to one end of a string
horizontal circle making 2 revolutions per second. Calcu
(a) 78.88 N
(b) 7.888 N
(c) 0.7888 N
(d) 7888 N

6. A bullet of mass 10gm moving with a speed of 500 n
5cm into it. Calculate the average retarding force exert
done by the wood in bringing the bullet to stop.
(a) 25 N, 12.50 joule
(b) 250 N, 1250 joule
(c) 25 KN, 1.250 joule
(d) 25 KN, 1250 joule

7. The acceleration due to gravity g on earth in 9.8 ms⁻
whose size is the same as that of earth but the density
(a) 19.6 ms^{-2}
(b) 9.8 ms^{-2}
(c) 4.9 ms^{-2}
(d) 2.45 ms^{-2}