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SUBJECT:- PHYSICS

CLASS:- IXTH

DATE:28/07/XX

SUBJECT TEACHER:- MR. NEEL NIRANJAN

CHAPTER 1. (MOTION REVISION) (BASED ON NCERT PATTERN)

Q.1. If a body is moving at constant speed in a circular path, its

- (a) Velocity is constant and its acceleration is zero.
- (b) Velocity and acceleration are both changing direction only.
- (c) Velocity and acceleration are both increasing.
- (d) Velocity is constant and acceleration is changing direction

Q.2. A graph is plotted showing the velocity of a car as a function of time. If the graph is a straight line, it means that

- (a) the car started at rest
- (b) acceleration was constant
- (c) acceleration was increasing
- (d) velocity was constant

Q.3. If a car is traveling north on a straight road and its brakes are applied, it will

- (a) have no acceleration
- (b) accelerate to the south
- (c) accelerate to the north
- (d) accelerate either east or west

Q.4. The acceleration of a car that speeds up from 12 meters per second to 30 meters per second in 15 seconds-

- (a) 2.4 m/s^2
- (b) 1.2 m/s^2
- (c) 2 m/s^2
- (d) 5.2 m/s^2

Q.5. A car going at 24 meters per second passes a motorcycle at rest. As it passes, the motorcycle starts up, accelerating at 3.2 meters per second squared. If the motorcycle can keep up that acceleration, how long will it take for it to catch the car

- (a) 12 s
- (b) 14s
- (c) 20s
- (d) 18s

Q.6. Mohan takes 20 minutes to cover a distance of 3.2 kilometers due north on a bicycle, his velocity in kilometer/hour-

- (a) 8.1
- (b) 9.6
- (c) 1.2
- (d) 7.2

Q.7. A body moving along a straight line at 20 m/s undergoes an acceleration of -4 m/s^2 . After two seconds its speed will be

- (a) -8 m/s
- (b) 12 m/s
- (c) 16 m/s
- (d) 28 m/s

Q.8. A particle experiences constant acceleration for 20 seconds after starting from rest. If it travels a distance s_1 in the first 10 seconds and distance s_2 in the next 10 seconds, then

- (a) $s_2 = s_1$
- (b) $s_2 = 2s_1$
- (c) $s_2 = 3s_1$
- (d) $s_2 = 4s_1$

ANSWERS

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|--------|--------|--------|--------|
| 1. (b) | 2. (b) | 3. (b) | 4.b) |
| 5. (b) | 6. (b) | 7. (b) | 8. (C) |