

Graded assignment
Summer vacation – 2020
Class – IX (Physics)

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Level - A

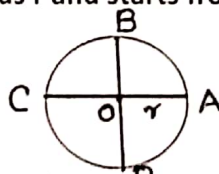
1. Write the S.I unit of acceleration.
2. What does the slope of distance-time graph represents?
3. Convert 72km/ h into m/s.
4. A cyclist moves on a circular path of radius r . Write the value of distance and displacement in one complete rotation on circular path.
5. Which motion is accelerated uniform motion or non uniform motion?

Level-B

1. Write two differences between speed and velocity.
2. A boy moves 3m in east direction and then in due north direction by 4m. Find the distance and displacement.
3. Pick out scalars and vectors from the followings -----
Mass, Energy, Force, Displacement
4. Define average speed and average velocity.
5. Write two differences between distance and displacement.

Level-C

1. Draw velocity-time graph for-
(a) Uniform motion (b) non-uniform motion (c) uniformly accelerated motion.
2. Prove the relation $V = u + at$ graphically.
3. A particle is moving on a circle of radius r and starts from point A. Find distance and displacement of particle when it goes



- (a) From A to C (b) from A to D (c) in one complete rotation on circle.
4. A train is moving at the speed 90km/h . Brakes are applied so as to produce a uniform acceleration of $- 0.5\text{m/s}^2$ find how far will the train go before it brought to rest.
 5. The data collected by an observer while observing the distance travelled by a car at different times are ----

| | | | | | |
|---------------------|---|---|---|---|---|
| Distance (in meter) | 3 | 3 | 3 | 3 | 3 |
| Time (in second) | 0 | 1 | 2 | 3 | 4 |

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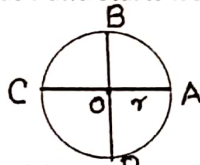
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| | | | | | |
|---------------------|---|---|---|---|---|
| Distance (in meter) | 3 | 3 | 3 | 3 | 3 |
| Time (in second) | 0 | 1 | 2 | 3 | 4 |

IX

| | | | | | |
|---------------------|---|---|---|---|---|
| Distance (in meter) | 0 | 2 | 4 | 6 | 8 |
| Time (in second) | 0 | 1 | 2 | 3 | 4 |

| | | | | | |
|---------------------|---|---|---|---|----|
| Distance (in meter) | 0 | 1 | 4 | 9 | 14 |
| Time (in second) | 0 | 1 | 2 | 3 | 4 |

Plot distance – time graph on graph paper in each case.

---X X X---

B K DAS
P G T (Physics)