

DPP Daily Practice Problem <i>Physics</i>	<i>Topic : Motion in Straight line</i> DPP No. 21	Time : 30 min. Total Marks : 56 Max.
Type of Questions Single choice Objective ('-1' negative marking) Q. 1 to Q. 14		

- Q 1) A man goes 10m towards North, then 20m towards east then displacement is
A) 22.5 m B) 25 m
C) 25.5 m D) 30 m
- Q 2) A person moves 30 m north and then 20 m towards east and finally $30\sqrt{2}$ m in south-west direction. The displacement of the person from the origin will be
A) 10 m along north B) 10 m long south
C) 10 m along west D) Zero
- Q 3) An aeroplane flies 400 m north and 300 m south and then flies 1200 m upwards then net displacement is
A) 1200 m B) 1300 m
C) 1400 m D) 1500 m
- Q 4) An athlete completes one round of a circular track of radius R in 40 sec. What will be his displacement at the end of 2 min. 20 sec
A) Zero B) $2R$
C) $2\pi R$ D) $7\pi R$
- Q 5) A wheel of radius 1 meter rolls forward half a revolution on a horizontal ground. The magnitude of the displacement of the point of the wheel initially in contact with the ground is
A) 2π B) $\sqrt{2}\pi$
C) $\sqrt{\pi^2 + 4}$ D) π
- Q 6) A person travels along a straight road for half the distance with velocity v_1 and the remaining half distance with velocity v_2 . The average velocity is given by
A) $v_1 v_2$ B) $\frac{v_2^2}{v_1^2}$
C) $\frac{v_1 + v_2}{2}$ D) $\frac{2v_1 v_2}{v_1 + v_2}$
- Q 7) The displacement-time graph for two particles A and B are straight lines inclined at angles of 30° and 60° with the time axis. The ratio of velocities of $V_A : V_B$ is
A) 1 : 2 B) 1 : $\sqrt{3}$
C) $\sqrt{3} : 1$ D) 1 : 3
- Q 8) A car travels from A to B at a speed of 20 km / hr and returns at a speed of 30 km / hr . The average speed of the car for the whole journey is
A) 25 km / hr B) 24 km / hr
C) 50 km / hr D) 5 km / hr
- Q 9) A boy walks to his school at a distance of 6 km with constant speed of 2.5 km/hour and walks back with a constant speed of 4 km/hr. His average speed for round trip expressed in km/hour, is
A) 24/13 B) 40/13
C) 3 D) 1/2
- Q 10) A car travels the first half of a distance between two places at a speed of 30 km/hr and the second half of the distance at 50 km/hr. The average speed of the car for the whole journey is
A) 42.5 km/hr B) 40.0 km/hr
C) 37.5 km/hr D) 35.0 km/hr
- Q 11) One car moving on a straight road covers one third of the distance with 20 km/hr and the rest with 60 km/hr. The average speed is
A) 40 km/hr B) 80 km/hr
C) $46\frac{2}{3}$ km/hr D) 36 km/hr
- Q 12) A car moves for half of its time at 80 km/h and for rest half of time at 40 km/h. Total distance covered is 60 km. What is the average speed of the car
A) 60 km / h B) 80 km / h
C) 120 km / h D) 180 km / h
- Q 13) A train has a speed of 60 km/h. for the first one hour and 40 km/h for the next half hour. Its average speed in km/h is
A) 50 B) 53.33
C) 48 D) 70
- Q 14) Which of the following is a one dimensional motion
A) Landing of an aircraft B) Earth revolving a round the sun
C) Motion of wheels of a moving trains D) Train running on a straight track