**Directions:**

**When initial Direction is given**

1. Vandana is going Northwards. She turns right, moves some distance and again turns to her right. After moving some distance she turns to her left, goes forward and again turns to her left. In which direction now is Vandana going?
2. A man walks 6km south, turns left and walks 4km, again turns left and walks 5km. Which direction is he facing now?
3. A man started walking West. He turned right, then right again and finally turned left. Towards which direction was he walking now?
4. A person starts towards South direction. Which of the following orders of directions will lead him to East direction?

a. Right, Right, Right b. left, left, left c. Left, right, right d. Right, Left, right

**When final distance is given**

1. Shiv goes 4km straight from his school. He turns to his right and walks 3km. He again moves 2km after turning right to reach his house. If his house is located in South East from his school, then in which direction Shiv started moving initially from his school

**Directions after replacement**

1. If south-west becomes North, then what will North –east be?

**When shadow is given**

1. At sunrise, Amit and Deepak are having a conversation standing in front of each other. The shadow of Deepak is formed towards the right hand of Amit. What direction is Deepak facing?
2. One evening before sunset two friends Raman and Arjun were talking to each other face to face. If Raman’s shadow was exactly to his left side, which direction was Arjun facing?

**Clock Based Directions**

1. A clock is so placed that when the time shown on the clock is 4:30. The min hand points towards west. Then in which direction does the hr hand points at the same time?
2. A clock is so placed that when the time shown on the clock is 12 Noon. The min hand points towards North -East Then in which direction does the hr hand points at 1:30PM?

**Finding Relative Directions**

1. Samar wants to go college which is situated in a direction opposite to that of a mall. He starts from his house, which is in the East and comes at a four way place. His left side road goes to the mall and straight in front is the railway station. In which direction is the college located?

A. North b.North-East c. South d. East

1. Ram walks 10m South from his house, turns left and walks 25m again turns left and walks 40m, then turns right and walks 5m to reach the school. In which direction is the school from his house? A. North b. South-west c. North-East d. East

**Finding the distance**

1. Vipul goes Northward 10m. He turns left and walks 30m, then again turns left and walks 50m, then how much distance Vipul travelled? A. 60m b.20 c.10m d.90m
2. Kavitha walks Northward up to 10m. He turns left and walks 30m. Finally, he turns left walks 50m. At what distance Kavitha is now from his starting position?

A. 50m b.10m c.20m d.90m

1. A and B start walking in opposite directions. A covers 3km and B covers 4km. then, A turns right and walks 4km while B turns left and walks 3km. How far is each from starting point?

A. 10km b.8km c.5km d.4km

1. Vijay starts walking straight towards East. Alter walking 75m he turns to the left and walks 25m straight. Again he turns to the left and walks a distance of 40m straight. Again he turns to the left and walks a distance of 25m. How far is he from the starting point?

A .140m b.115m c.50m d.35m

**Finding the distance and direction**

1. Mahima goes 10m North, then goes 6km south, again she moves on 3km East. At what distance is she now from original position and in which direction?

A. 5km North-East b. 5km South –East c. 8km North –East d. 10km South-East

1. Town D is 12km towards the North of town a. Town C is 15km towards the West of town D. Town B is 15km towards the West of town a. How far and in which direction is town B from town C?

A. 15km towards North b. 12km towards North c. 3km towards Southd.12km towards Southe. cannot be determined

1. Raghu is at point A. he walks 3km to the North and then turns to his left. He walks 4km in this direction. He turns left again and walks 6km. If he wishes to reach point A again, in which direction should he be walking and what distance will he have to cover?

A. south-east, 5km b. south –east, 4km c. North-east, 5km d. North-East,4km

1. Town D is to the west of town M. Town R is to the South of town D. Town K is to the East of town R. Town K is towards which direction of town D?

A. South b. East c. North-East d. South-East d. None

1. Two buses start from the opposite points of a main road, 150m apart. The first bus runs for 25km and takes a right turn and then runs for 15km.It then turns left and runs for another 25km and takes the direction back to reach the main road. In the mean tine due to the minor break down the other bus has run only 35km along the main road. What would be the distance between the two buses at this point?

A. 65km b.80km c.75km d.85km

1. P is 60 m south east of Q. R is 60 m North east of Q. Then R is in which direction of P?

A. North B. North east C. South east D. South

1. On a play ground A,B,C,D and E are standing as described below facing north

B is 50 m to right of D;;A is 60 m to south of B;;C is 40 m to west of D;;E is 80 m to north of A

(i)If a boy walks from C, meets D followed by B, A and then E, how many meters has he walked if he has travelled the straight distance all through?

(ii)What is the minimum distance between C and E

(iii)Who is to the south east of the person who is to the left of D?

**Angular Rotation**

1. A man is facing North –West. He turns 90 degrees in the clock wise direction and then 135 degrees in the anti clock wise direction . which direction is he facing now ?
2. Raju who is facing east, turns 100 degrees in the anti clockwise direction and then 145 degrees in the clock wise direction. Which direction is he facing now?

**Element Series**

1. Directions (1-5): Study the following arrangement carefully and answer the questions given below.

**R D 1 5 E % K 3 J I 9 P 8 # A 2 B $ K M 6 W @ N 4 © T λ 7 F H**

(i) How many such letters are there in the above series, each of which is immediately preceded by a symbol and immediately followed by a number?

a) Two b) Three c) Four d) Five e) None of these

(ii) How many such numbers are there in the above series, each of which is not immediately preceded by a symbol but immediately followed by a letter?

a) Two b) Three c) Four d) Five e) None of these

(iii) What should come in place of the question mark (?) in the following series based on the above arrangement? D5% J98 2$M ?

a) @4T b) WN© c) N©T d) @4© e) None of these

(iv) Four of the following five are alike in a certain way based on their positions in the above arrangement and so form a group. Which is the one that does not belong to that group?

a) BK2 b) EI% c) J93 d) N©@ e) 4TN

(v) Which element is 6th to the right of 18th element from right end?

a) P b) 3 c) W d) M e) None of these

1. **E 4 B % R 3 A 6 # F H @ I 2 D 9 © K U $ W 1 M P 5 \* Q 8 T**
2. If all the numbers are dropped from the above arrangement, which of the following will be the ninth to the left of W ?
3. How many such numbers are there in the above arrangement each of which is immediately preceded by a symbol and immediately followed by a letter?
4. Which of the following is the fifth to the right of the eighteenth from the right end of the above arrangement?
5. Which of the following is the fourth to the right of twelfth from the left end of the above arrangement?
6. Four of the following five are alike in certain way based on their positions in the above arrangement and so form a group. Which is the one that does not belong to that group?

A.F @ # B.D © 2 C. U W K D. % 3 B E.5 Q M