DISTANCE AND DIRECTION

Direction (1-3): Study the following information carefully and answer the questions given below:

Shivani starts walking from point D. She walks 10m in South and reaches at point E then she turns right and walk 6m to reach point F. Now, she takes right turn and walks 8m and reaches at point G. Finally, she takes left turn and walk 4m to reach point H.

1. Point H is in which direction with respect to point D?

(a) West   (b) South-west   (c) North-west   (d) East   (e) None of these

2. If point H is in East direction with respect to point G then, Shivani starts her journey from which of the following direction?

(a) East   (b) West   (c) North   (d) South   (e) None of these

3. What is the shortest distance between the points G and E?

(a) 8m   (b) 9m   (c) 7m   (d) 10m   (e) None of these

Direction (4-6): Study the following information carefully and answer the questions given below:

Abet walks 10m in the north from his club and reaches to point K. Now, he takes his left turn and goes 15m to reach point M. After that, he takes his right turn and goes 20m to reach point Y. From point Y, Abet takes his left turn and goes 12m to reach his farmhouse.

4. What is the total distance covered by Abet?

(a) 35m   (b) 45m   (c) 57m   (d) 47m   (e) 67m

5. Point K is in which direction with respect to Point Y?

(a) South-west   (b) North   (c) South   (d) North-east   (e) South-east

6. If Point D is 30m south from Abet farmhouse, then find the shortest distance between Point D and Abet Club?

(a) 22m   (b) 25m   (c) 27m   (d) 15m   (e) 20m

Directions (7-8): Study the following information to answer the given questions:

Ram starts walking from point B in the south direction and walks for 20m to reach point A, then he takes a left turn and walks for 10m to reach point C and again he takes right turn and walks for 5m to reach point D. Now he takes a right turn and walks for 10m to reach point F and finally he takes a right turn and walks for 10m to reach point E.

7. What is the total distance between point E and point B?

(a) 20m   (b) 5m   (c) 10m   (d) 7m   (e) None of these

8. In which direction is point C with respect to point F?

(a) Northwest   (b) North   (c) South   (d) Northeast   (e) None of these

Direction (9-11): Study the following information carefully and answer the questions given below:

Anshul is starting walk from his Office. He walks 5m in North and reaches at point S then, he turns left and walks 8m to reach at point T. Again, he turns left and walks 10m to reach at point U. Now, he turns right and walks 4m to reach his home

9. What is the direction of point S with respect to U?

(a) North   (b) South   (c) North-west   (d) South-west   (e) None of these

10. What is the direction of Anshul's home with respect to his office?

(a) North-east   (b) South-east   (c) North-west   (d) South-west   (e) None of these

11. What is the shortest distance between Anshul's office and home?

(a) 10m   (b) 11m   (c) 12m   (d) 13m   (e) None of these

Directions (12-13): Study the following information carefully and answer the questions given below:

Ashish starts his journey from point P. He walks 15m in North direction and reaches at point Q. Now, turning to the right, he walks 8m to reach point R then he takes left turn and walk 3m to reach point S. From point S, he walks 4m in west direction and reaches at point T and then from Point T, he walks 15m in south and reaches his final destination.

12. Find the shortest distance between point P and final position of Ashish?

(a) 4m   (b) 3m   (c) 5m   (d) 3.5m   (e) None of these

13. If point A is the midpoint between point T and final position of Ashish then what is the shortest distance between point Q and point A?

(a) 4m   (b) 5m   (c) $\sqrt{29.25}$m   (d) $\sqrt{20.25}$m   (e) None of these

Direction (14-16): Study the following information carefully and answer the questions given below:

Rohit starts walking from point A in the north and walks 10 m and reaches at point U, then he takes a right turn and walks for 20 m till point O. From point O he walks 2 m to his left till point P then takes a left turn and walks 25 m till he reaches his final position at point R

14. Point R is in which direction with respect to his initial point?

(a) West   (b) South-west   (c) North-west   (d) East   (e) None of these

15. If point H is in East direction with respect to point O, then in which direction is point P with respect to point H? (a) East   (b) West   (c) North-west   (d) South-west   (e) None of these

16. What is the shortest distance between the points A and R?

(a) 8m   (b) 9m   (c) 7m   (d) 13m   (e) None of these

Direction (17-19): Study the following information carefully and answer the questions given below:

Rahul starts his journey from point P and walks 20m to his north and reaches at point Q. From Point Q he turned to his right and walks 10m till he reaches the point R. From point R he turned to his right and walks 15m before reaching point S then he turns to his left and walks 10 m to reach point T.

17. Point R is in which direction with respect to point P?

(a) West   (b) South-west   (c) North-west   (d) East   (e) None of these

18. If point H is in South direction with respect to point S, then in which direction is point H with respect to point T?

(a) East   (b) West   (c) North-west   (d) South-west   (e) None of these

19. What is the shortest distance between the points P and T?

(a) $\sqrt{122.3}$m   (b) $\sqrt{90}m$ (c) 7m   (d) $\sqrt{425}$m   (e) None of these

Direction (20): Study the following information carefully and answer the questions given below:

Point D is in 15m south of Point A. Point D is in 10m west of Point B. Point E is in 15m south of Point B. Point F is in 18m west of Point E. Point C is in 8m north of Point F.

20. Point C is in which direction with respect to B?

(a) North-east   (b) South-west   (c) North   (d) South   (e) None of these

21. A man is facing North, he turns to his right 90° .Then he turns 180° in anti clock wise direction. Again he turns in the same direction 45°.Finally he turns 90° in the clock wise direction. In which direction is he facing now?
A.North West   B.South west
C.South East   D.East

22. Kalpana is facing North,she turned 45° clockwise then she turned 90° anticlockwise. From here she turned 135° in the same direction, then she turned 90° in clockwise direction. In which direction does she facing now?
A.South   B.West
C.South East   D.North

23. One day Charan is going to school.He started walking in North direction, after walking some distance,he turned 45° clockwise,then 180° in the same direction. From there he turned 270° in anticlockwise direction.Finally in which direction is charan facing?
A.North-East   B.North
C.North-West   D.None of these

24. Kavita is facing North-East, from there she turned 45° in the clockwise,then she turned 90° in the same direction.Now she turned 135° in the opposite direction of her present direction,then she turned 180° in the opposite direction of her present direction.Then she turned 90° in the anti clockwise direction and again she turned 90° in the same direction.Find her final direction in which she is facing?
A.North   B.North-East
C.South-East   D.South

25.A traffic police is facing to East, he turned 35° in clockwise direction,After that he turned 10° in the same direction, from there he turned 180° to his left hand side.In which direction is he facing now?

A.North   B.North-West
C.South   D.South-East

26. One evening before sunset Rekha and Hema were talking to each other face to face. If Hema's shadow was exactly to the right of Hema, which direction was Rekha facing?

A.North   B.South
C.East   D.Data is inadequate

27.One morning after sunrise, Vimal started to walk. During this walking he met Stephen who was coming from opposite direction. Vimal watch that the shadow of Stephen to the right of him (Vimal). To Which direction Vimal was facing?

A. East   B. West
C. South   D. Data inadequate

28.One morning after sunrise, Suresh was standing facing a pole. The shadow of the pole fell exactly to his right. To which direction was he facing?

A.East   B.South
C.West   D.Data is inadequate

29.One morning after sunrise Nivedita and Niharika were talking to each other face to face at Dalphin crossing. If Niharika's shadow was exactly to the right of Nivedita, Which direction Niharika was facing?

A.North   B.South
C.East   D.Data is inadequate

30 .One morning Udai and Vishal were talking to each other face to face at a crossing. If Vishal's shadow was exactly to the left of Udai, which direction was Udai facing?

A. East   B. West
C. North   D. South

DIRECTIONS(31-33) Read the given information carefully and answer the given question

B is 25 m south of A. C is 10 m east of B. D is 30 m north of C. E is 7 m east of D. X is 18 m south of E. M is 12 m south of X. C is 7 m west of M.

31. B is in which direction from Point D?
(A). South   (B) South-West   (C) North-East   (D) South-East   (E) North

32. If Point W is 3 m to the north of A, then what is the distance between B and W?
(A) 28 m   (B) 15 m   (C) 21 m   (D) 24 m   (E) 17 m

33. What is distance between B and M
(A) 17 m   (B) 15 m   (C) 21 m   (D) 19 m   (E) 13 m

DIRECTION (34-35): Study the following information carefully to answer the given questions.

Ravi starts his journey from his home and he walks 10 km towards South direction. He takes a left turn and walks 8 km. After that he takes a right turn and walks 10 km. Now, he walks 14 km after taking a right turn. Finally he reached his office.

Q34. In which directions, Ravi's home with respect to Ravi's office?
(A)South-West (B) North (C) West (D) North-east (E) North-west

Q35. How far Ravi's office with respect to Ravi's home?
(A) $2\sqrt{109}$ (B) $4\sqrt{109}$ km (C) 26 km (D) $5\sqrt{14}$ km (E) None of these