DIRECTION & DISTANCE

(Ref: FM-LR2022020)

1. Sam walked 10 m north towards from his house. Then he walked 5 m turning to his left. After this he walked 10 m turning to his left and in the end he walked 10 m turning to his left. In what direction is he from his starting point?
   a) East b) West
   c) North d) South e) None

2. Jatin leaves his house and walks 12 km towards North. He turns right and walks another 12 km. he turns right again, walks 12 km more and turns left to walk 5 km. How far is he from his home and in which direction?
   a) 7 km east b) 10 km east
   c) 17 km east d) 24 km east

3. A girl from her home. She walks 30 m in north-west direction and then 30 metres in south-west direction. Next she walks 30 m in South-east direction. Finally she turns towards her house. In which direction is she moving?
   a) South West b) South East
   c) North-East d) North-West

4. Kailash faces towards north. Turning to his right, he walks 25 m. he then turns to his left and walks 30 meters. Next, he moves 25 m to his right. He then turns to his right and again walks 55 m. finally he turns to the right and moves 40 m. in which direction is he now from his starting point?
   South – West b) South
   North-West d) South-East

5. Pran and Khan start from their office and walks in opposite direction, each traveling 10 km. Pran then turns left and walks 10 km. While Khan turns right and walks 10 km. How far they are now from each other?
   a) 0 km b) 5 km c) 10 km
   d) 20 km e) None

6. A direction pole was situated on the crossing. Due to an accident the pole turned in such a manner that the pointer which was showing East, started showing South. One traveler went to the wrong direction thinking it to be West. In what direction actually he was travelling?
   a) South b) East c) West
   d) North e) None

7. Amit walk 10 km towards south from there he walk 6 km north. The he walked 3km towards West. How far he is with respect of his starting point?
   a) 5km b) 6km e) 4km
   d) 3km e) None

8. You go to south, turn right and walking then again turn right and then go to left, in which direction you walking now?
   a) East b) West c) South
   d) North e) None

9. A man leave for his office from his house. After moving distance of 20 km, he turn south and walked 10 km then he turn his right and after walking further 35 km, again turned his right and move for 10 km, and at last he turned his right and walked 5 km to reach his office. He is facing east direction now. If straight distance between his house and office is 30 km, then he started walking in which direction before his first south turn?
   a) East b) West c) North-west
   d) South-west e) None

10. Anaya started from a point in some direction. After walking for some time, she turned to her right and continued walking. Now walking for some distance she turned to her left and after this finally to her right. If now she is walking in west direction, in which direction did she started her journey?
    a) North b) West c) East
    d) South e) East or west

11. Radha is facing east. She turned 120° in the clockwise direction and then 165° in the anti-clockwise direction. Which direction is she facing now?
    a) East. b) North-east. c) North.
    d) South-west. e) None

12. From a point, a person starts walking in south direction. He takes a right turn, then taken 2 lefts turns and then takes two right turns and stops after walking 3 km. In which direction he is standing with respect to the starting point?
    a) West b) East c) North
    d) South e) Cannot be determined

13. A river flows west to east and on the way turns left and goes in a semi-circle round a hillock and then turns left at right angles. In which direction is the river finally flowing?
    a) West b) East c) North
    d) South e) None

Direction (14-15): Study the following information carefully and answer the given questions:

Shobha goes 5 km west from point P and then she take right turn and walk 4km. Again she takes right turn and walks 10 km and reach point Q. From Q she takes left turn and walk 3km. Again she takes left turn and walks 4km and reaches point R. From R she walks 7km south and reaches point S.

14. What is the distance between P and S?
    a) 1m b) 2km c) 3km
    d) 1km e) None

15. Point P is in which direction with respect to point R?
    a) South-West b) North-west
    c) West d) Cannot be determine
    e) None

16. A Ram walks 6 km towards the north, then turns towards his left and walks for 4 km. He again turns left and walks for 6 km. At this point he turns to his right and walks for 6 km. How many km and in what direction is Ram from the starting point?
a) 10 km, West b) 6 km, South
c) 4 km, South d) 8 km, West
e) 10 km, East

17. Abhishek starts from Point A and walks 20 m towards North then takes a left turn and walks 30 m and then takes a right turn and walks 10 m. He finally takes a left turn and walks 30 m and stops at Point B. After Abhishek reaches the final Point B, Sumit starts from Point A. He walks 5 m towards the East, takes a left turn and walks 30 m to reach point C. How far and towards which direction would Abhishek have to walk in order to meet Sumit at Point B?
a) 90 m towards West
b) 55 m towards North
c) 65 m towards East
d) 90 m towards South
e) 35 m towards West

18. A road network has parallel and perpendicular roads running north-south or east- west only. Junctions/ Intersections on this road network are marked as A, B, C, D.... All junctions are at exactly half a kilometer distance from each other. The following is known about junctions A, B, C, H and X.
'A' is east of 'B' and west of 'C', 'H' is southwest of 'C' and southeast of B. 'B' is southeast of 'X'.
Which junctions are the farthest south and the farthest east?
a) H, B b) H, C c) C, H
c) B, H e) B, A

19. If North-east becomes West and South-east becomes North then what will West becomes?
a) South-east b) North-east
c) South d) North-west
e) None

Directions (21-22): Ram is 30 km away from Shyam in East direction. Mohit is standing south of Ram and facing south direction & distance between Ram and Mohit is 40 km. now to right Mohit covering 35 km towards West, Priyanka is standing. Priyanka is standing and waiting for bus on her position and facing North direction. After bus came Priyanka start moving towards south-east direction and covering 15 km and reached her hostel.

20. What is shortest distance between Shyam and where Priyanka waiting for bus, and Shyam is in which direction with respect of Priyanka?
a) 40.3 km north-east
b) 35 km north-east
c) 35.7 km north-west
d) 47 km north
e) None

21. Shyam is in which direction with respect of Mohit?
a) South-west b) North East
c) North d) North-west
e) None

DIRECTIONS (Q.24-26): Read the following information carefully and answer the questions given below it:

a) P α Q means Q is to the right of P at a distance of one metre.
b) P β Q means Q is to the North of P at a distance of one metre.
c) P λ Q means Q is to the left of P at a distance of one metre.
d) P η Q means Q is to the South of P at a distance of one metre.
e) In each of the following questions all persons face South.

22. If A η B λ L β K, then K is in which direction with respect to A?
a) South b) East c) North
d) West e) None

23. If G α L η R α M then M is in which direction with respect to L?
a) North-east b) North-west
c) South-east d) South-west
e) None

24. If A α B λ C β D, then D is in which direction with respect to A?
a) North b) South
c) East d) North-east
e) None

Directions (27-28): Read the following information to answer the questions that follow:
(1) A+B = B is south of A,
(2) A&B = A is west of B,
(3) A*B = B is east of A,
(4) A-B = A is north of B,
(5) A@B = A is north-west of B,
(6) A#B = B is south west of A,
(7) A%B = A is north East of B, and
(8) A$B = A is south east of B

25. Given that, A*B-C+D&E#F, C-F, Point A is which direction respect of point F?
a) South-west b) North-east
c) South d) North-west
e) None

26. Given that, P*Q-R, P@T*R, U$T, R+U, which three points are in a straight line?
a) P, Q, T b) Q, R, U c) P, Q, U
d) T, R, U e) None

Direction (29-31): Read the given information carefully and answer below Question.-
There are 7 family members P, Q, R, S, T, U and V standing in ground in which there are 2 married couples. P is sister of Q who is maternal grandson of T. Maternal grandfather of Q is standing 3m to the right of Q who is facing north.
The father of S has 2 maternal grandchildren. V is facing north. V is standing 4m to the south of maternal grandson of U. S is 2m to the right of V. P is 1m south of S and 1m west of U. R is sister-in-law

of V and standing 9m to the north of her mother. V is father of P. U is a Female.

27. Maternal granddaughter is standing in which direction w.r.t his husband?
    a) south-east b) south
    c) north-west d) south-west
    e) None

28. What is direction and distance and relationship of S with respect to P?
    a) 1m north, Mother
    b) 1m south, Sister
    c) 1m north, Mather – in law
    d) 1m north, Daughter
    e) None.

29. What is a minimum distance between V and His father – in – Law?
    a) 3m b) 2m c) 4m
    d) 6m e) None

Directions (32-36): Study the following information carefully and answer the questions that follow.
A country has the following types of traffic signals.
3 green lights = go at 60 kmph speed
2 green lights = go at 40 kmph speed
1 green light = go at 20 kmph speed
3 red lights = stop
2 red lights = turn left
1 red light = turn right
A person starts driving from a point in West direction and he encounters the following traffic signals:
Starting point – 1 green light;
After 15 minutes, 1st signal – 2 red & 2 green lights;
After 24 minutes, 2nd signal – 1 red & 3 green lights;
After 45 minutes, 3rd signal – 1 red & 2 green lights;
After 18 minutes, 4th signal – 3 red lights;

30. Find the total distance he covered up to the last signal.
    a) 76 km b) 78 km c) 70 km
    d) 75 km e) 79 km

31. After passing the third signal if the person encounters fourth signal after half an hour, then what is his final position with respect to the starting point?
    a) 4 km to the south and 50 km to the east
    b) 55 km directly to the north-west
    c) 4 km to the north and 50 km to the west
    d) 4 km to the north and 45 km to the west
    e) None

32. If instead of starting in West direction, the man starts in South direction, then what is his position with respect to the starting point?
    a) 50 km to the south and 4 km to the west
    b) 54 km directly to the north-west
    c) 50 km to the north and 4 km to the west
    d) 50 km to the south and 4 km to the east
    e) None

33. If after the first signal, 2nd signal: 2 red and 2 green lights, and 3rd signal: 1 red and 3 green lights, then what is the distance covered up to the last signal?
    a) 69 km b) 60 km c) 68 km
    d) 67 km e) 65 km

34. If the person stops at 3rd signal, then what is his final position with respect to his starting position?
    a) 50 km to the north-west
    b) 52.5 km to the south-west
    c) 52.5 km to the north-east
    d) 50.5 km to the south-west
    e) 50.5 km to the south-east

35. At 12.30 the hour hand of a clock faces North and the minute hand faces South. A 2.45 the minute hand will be in which direction?
    a) North-West b) West c) South-East
    d) East d) South

36. If the clock read 6.20 and if the minute hand points North-East in which direction will the hour hand point?
    a) West b) South-East c) East
    d) North-West e) North

Directions (39-43): There are 6 cars – A, B, C, D, E and F which are parked in a straight line. But alternate cars cannot be alphabetically placed, like car A cannot be parked alternate to car B, car B cannot be parked alternate to car A and C, and so on. Distance between each car is a successive multiple of 4.
Distance between cars A and B is 60 m. Car A is parked left of car B. There is 1 car parked between cars A and B. Distance between cars B and E is 84 m. Distance between cars C and F is a multiple of 3. Car F is parked somewhere right of car C.
From a point, Car G moves 16 m east, takes a right turn, moves 12 m and stops at point Z. Point Z is 15 m north of car A.
If Car F goes 7 m in South direction, takes a left turn and moves 16 m, then it turns right and moves 5 m, next takes a left turn again and moves 22 m, then it reaches point X.

37. How many cars are parked between cars A and D?
    a) One b) None c) Three
    d) Two e) Four

38. What is the distance car B and point X?
    a) 13 m b) $2\sqrt{5}$ m c) $6\sqrt{2}$ m
    d) 14 m e) $6\sqrt{5}$ m

39. Car C will have to move how much to reach to car G?
    a) 15 m north, 38 m east
    b) 24 m east, 17 m north
    c) 44 m east, 15 m north
    d) 17 m north, 38 m east
    e) 17 m north, 44 m east

40. Car D will have to move how much to reach to point X?
    a) 10 m west, 30 m south
    b) 12 m south, 30 m west
    c) 12 m south, 30 m east
    d) 32 m west, 10 m west
    e) 36 m west, 10 m south

41. If car G moves 28 m east, takes a right turn, and stops at point Y after moving 17 m, then car B is in which direction with respect to point Y?
    a) North-west
    b) South-east
    c) Cannot be determined
    d) South-west

Directions (44-45): 6 cars – A, B, C, D, E and F are parked in a straight line not necessarily in the same order. Distance between each car is a successive multiple of 3.
The distance between cars A and B is 33 m. A is parked immediate left of B. The distance between cars B and C is 75 m. Car D is parked left of C but not immediate left. The distance between cars E and F is 99 m. The distance between cars E and D is a multiple of 2.
Car F moves for 12 m in North direction, takes a right turn, moves for 63 m, takes a right turn again, moves for 6 m and stops at point Z.
Car C moves for 18 m in South direction, takes a right turn, moves for 75 m, takes a right turn again, moves for 7 m and stops at point X.
Car M is parked 13 m west of point Z. It moves 77 m towards west and stops at point Y.

42. How many cars are parked between D and F
    a) One b) Two c) None
    d) Three e) Four

43. What is the distance between points Z and X?
    a) 19 m b) 18 m c) 15 m
    d) 16 m e) 17 m

Answers

1	C	11	B	21	A	31	C	41	C
2	C	12	E	22	B	32	D	42	C
3	C	13	B	23	D	33	A	43	E
4	C	14	D	24	A	34	B		
5	D	15	A	25	D	35	B		
6	A	16	A	26	B	36	C		
7	A	17	C	27	D	37	D		
8	B	18	B	28	A	38	E		
9	B	19	A	29	E	39	C		
10	D	20	A	30	B	40	C		