

## Direction Test

### Self-Evaluation Test

1. **One morning after sunrise, Reeta and Kavita were looking to each other face to face at Tilak Square. If Kavita's Shadow falls exactly to the right to Reeta, in which direction Kavita was?**  
(a) North  
(b) South  
(c) North-West  
(d) South-West  
(e) None of these
2. **Rohit walked 25 metres towards South. Then he turned to his left and walked 20 metres. He then turned to his left walked 25 metres. He again turned to his right and walked 15 metres. At what distance is he from the starting point and in which direction?**  
(a) 35 metres, East  
(b) 35 metres, North  
(c) 40 metres, East  
(d) 60 metres, East  
(e) None of these
3. **Sobha was facing East. She walked 20 metres. Then she moved to her left and walked 15 metres. And then turned to her right and moved 25 metres. Again, she turned right and moved 15 metres. How far is she from her starting point?**  
(a) 25 metres                      (b) 35 metres  
(c) 50 metres                      (d) 45 metres  
(e) None of these
4. **Raj travelled from a point X straight to Y at a distance of 80 metres. He turned right and walked 50 metre, then again turned right and walked 70 metres. Finally, he turned right and walked 50 metres. How far is he from the starting point?**  
(a) 10 metres                      (b) 20 metres  
(c) 50 metres                      (d) 70 metres  
(e) None of these
5. **Mohan starts from point P and reaches point Q at a distance of 6 km, then he turns right and walks 8 km to reach the point R. Then he turns towards East and walks 4 km, then turns left and walks 8 km and reaches the point "L What is the distance of point T from point P?**  
(a) 10 km  
(b) 12 km  
(c) 14 km  
(d) 26 km  
(e) None of these
6. **A and B start running in opposite directions from a point P.A. runs at 5 km / hour and B runs at 4 km / hour. What could be the distance between them after three hour?**  
(a) 3 km  
(b) 21 km  
(c) 18 km  
(d) 27 km  
(e) None of these
7. **My face is towards South. By turning according to which sequence my face will remain in the same direction?**  
(a) Left, Right, Left, Right, Left, Left, Right, Right  
(b) Left, Left, Right, Right, Left, Right, Left, Left  
(c) Right, Right, Right, Left, Left, Left, Right, Right  
(d) Right, Left, Left, Right, Left, Left, Right, Left  
(e) None of these
8. **A person started walking towards West and a distance of 15 m, he turned right and walked 10 m. Again he turned right and walked 5 m and in the end he turned left and walked 15 m. In which direction this person is now?**  
(a) North                              (b) South  
(c) East                                (d) West  
(e) None of these
9. **Akash started walking towards West from his house and went 40 km. Then turned left and walked 30 km. How far is he now from his house?**  
(a) 30 km                              (b) 50 km  
(c) 25 km                              (d) 40 km  
(e) None of these

10. **Ram started in East direction. After moving 30 metres he turned right and moved 40 metres. After that he turned right and moved 30 metres. He again turned right and moved 50 metres. At what distance from the origin is he now?**  
 (a) 40 metres  
 (b) 30 metres  
 (c) 20 metres  
 (d) 10 metres  
 (e) None of these
11. **Two buses start from the opposite points of a main road, 150 km apart. The first bus runs for 25 km and takes a right turn and then runs for 15 km. It then turns left and runs for another 25 km and takes the direction back to reach the main road. In the meantime, due to a minor breakdown, the other bus has run only 35 km along the main road. What would be the distance between the two buses at this point?**  
 (a) 60 km  
 (b) 65 km  
 (c) 75 km  
 (d) 85 km  
 (e) None of these
12. **Prakash walks 20 metres towards North. He then turns left and walks 40 metres. He again turns left and walks 20 metres. Further, he moves 20 metres after turning to the right. How far is he from his original position?**  
 (a) 40 metres  
 (b) 60 metres  
 (c) 80 metres  
 (d) 100 metres  
 (e) None of these
13. **I am facing South. I turn right and walk 20 m. Then I turn right again and walk 10 m. Then I turn again and walk 60m. In which direction am I from the starting point?**  
 (a) East  
 (b) North-West  
 (c) West  
 (d) North-East  
 (e) None of these
14. **X and Y start moving towards each other from two places 200 m apart. After walking 60 m, Y turns left and goes 20m, then he turns right and goes 40 m. He then turns right again and comes back to the road on which he had started walking. If X and Y walk with the same speed, what is the distance between them now?**  
 (a) 20 m  
 (b) 30 m  
 (c) 40 m  
 (d) 50 m  
 (e) None of these
15. **Nitin starts moving towards East from a point K. After moving 30 metres he turns to his right and moves 10 metre. He again turns to his right and walks 30 metres. He turns to his right and moves 30 metres. At in which direction is he now from K?**  
 (a) At K, East  
 (b) 10 m, North  
 (c) 20 m, West  
 (d) 20 m, North  
 (e) None of these
16. **Five friends A, B, C, D and E reside in the colony. B's house is to the East of A's house and to the North of Cs house. C's house is to the West of D's house. In which direction D's house is from A's house?**  
 (a) South-East  
 (b) North-East  
 (c) East  
 (d) South  
 (e) None of these
17. **Two women and two men are playing cards and are seated North, East, South and West of a table. No woman is facing East. Persons sitting opposite to each other are not of the same sex. One man is facing South. In which directions are the ladies facing?**  
 (a) East and West  
 (b) South and East  
 (c) North and East  
 (d) North and West  
 (e) None of these
18. **Ram starts from a point P, drives 2 km towards North turns to his left and drives 3 km and after taking turn to his left he drives 2 km and finishes at point Q. At the first turn in which direction Ram will be driving?**  
 (a) West  
 (b) North  
 (c) East  
 (d) South  
 (e) None of these

19. If the teachers are to the West of Principal's Office and students are to the North of Principal's Office, then in which direction are teachers with respect to the students?

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

20. A watch reads 4:30. If the minute hand points East, in what direction will the hour hand point?

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

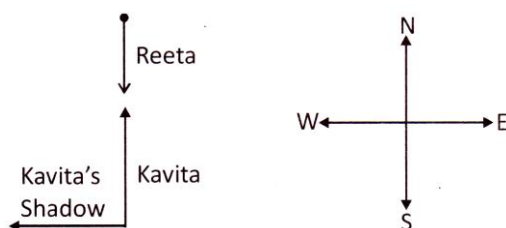
### Answer – Key

1. (A)	2. (A)	3. (D)	4. (A)	5. (A)
6. (D)	7. (A)	8. (A)	9. (B)	10. (D)
11. (B)	12. (B)	13. (D)	14. (C)	15. (D)
16. (A)	17. (D)	18. (A)	19. (B)	20. (D)

### Explanation

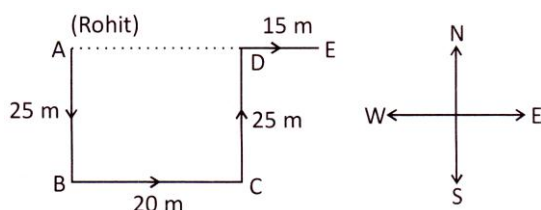
1. Explanation

Option (a) is correct. In morning, sun rises in the East, so shadow of a object falls towards the West. Now, Kavita's shadow falls to the rights of Reeta. Hence, Reeta is facing South and Kavita is facing North.



2. Explanation

Option (a) is correct. The movements of Rohit are as shown in figure.



Rohit's distance from starting point  $A = AE$

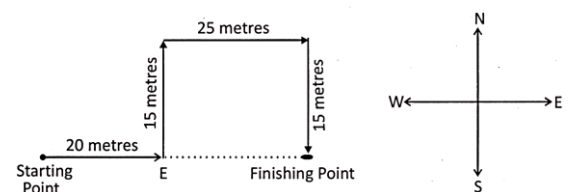
$$= (AD + DE) = (BC + DE) = (20 + 15) \text{ m} = 35 \text{ m}.$$

Also, point E is to the East of A. So, he is in East direction.

3. Explanation

Option (d) is correct.

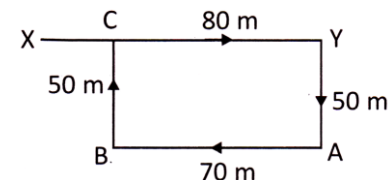
Shobha turns left after walking 20 metre towards East. Now she walks 15 metre towards North. She turns right towards East again and walks 25 metre further. Finally turning right towards South, she walks 15 metre. The distance moved towards North and towards South is same, i.e., 15 metres.



So, Shobha is  $20 + 25$  metre  $= 45$  metre away from her starting point.

4. Explanation

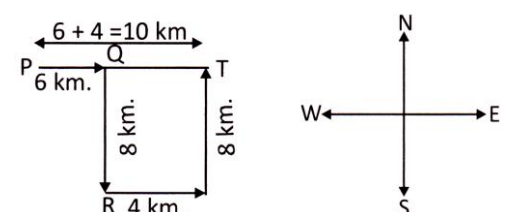
Option (a) is correct. The movements of Raj are as shown in figure (X to Y, Y to A, A to B, B to C).



∴ Raj's distance from the starting point  $= XC = (XY - YC) = (XY - BA) = (80 - 70) \text{ m} = 10 \text{ m}.$

5. Explanation

Option (a) is correct. The movements of Mohan are shown in the figure given below:



The distance between point P and T is,  $PT = PQ + QT = 6 + 4 = 10 \text{ km}.$

**6. Explanation**

Option (d) is correct.

A's distance =  $5 \times 3 = 15$  km.

B's distance =  $4 \times 3 = 12$  km.

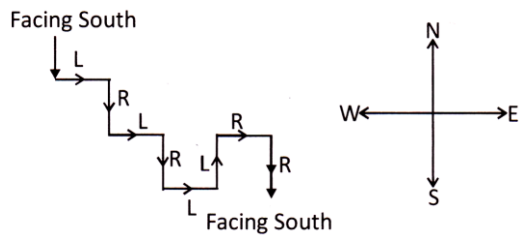
B's distance =  $4 \times 3 = 12$  km.

$\therefore$  Distance between the two =  $15 + 12 = 27$  km

(Because they are walking in opposite directions).

**7. Explanation**

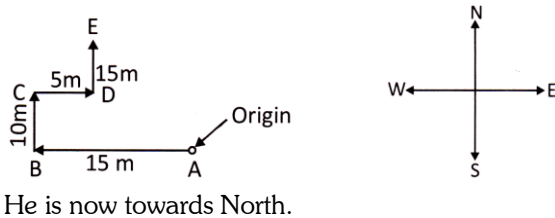
Option (a) is correct.



Thus, by turning according to the sequence given in option (A), my face will remain in the same direction, i.e. in South.

**8. Explanation**

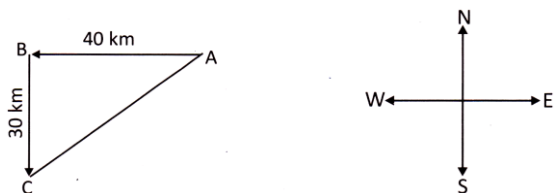
Option (a) is correct. The movement of the person is shown in the diagram given below:



He is now towards North.

**9. Explanation**

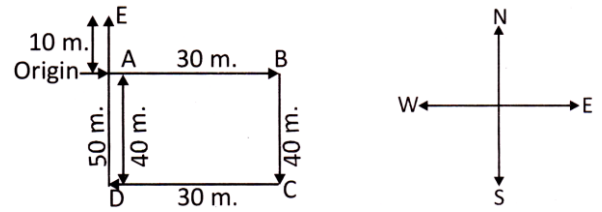
Option (b) is correct. Distance of final point C from Akash's house A = AC.



Using pythagoras theorem,  $AC = \sqrt{AB^2 + BC^2}$   
 $= \sqrt{40^2 + 30^2} = \sqrt{2,500} = 50$  km.

**10. Explanation**

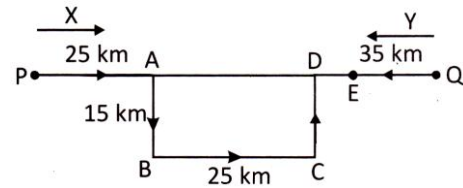
Option (d) is correct. The movements of Ram are shown in the diagram given below:



So, the distance of Ram from the origin =  $AE = DE - AD = 50 - 40 = 10$  m.

**11. Explanation**

Option (b) is correct. Let X and Y be two buses.



Bus X travels along the path PA, AB, CD.

Now,  $AD = BC = 25$  km

So,  $PD = PA + AD = 50$  km

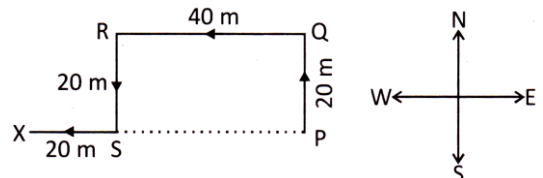
Bus Y travels 35 km upto E.

Distance between two buses,

$DE = PQ - (PD + QE) = [150 - (50 + 35)] = 65$  km.

**12. Explanation**

Option (b) is correct. The movements of Prakash are as shown in the diagram given below:



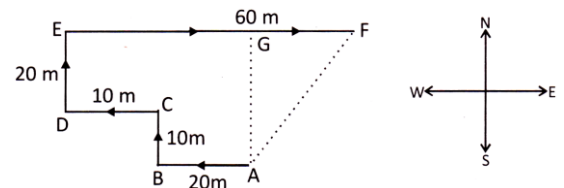
Clearly, Prakash's distance from his initial position P =  $PX = (PS + SX)$

$= (QR + SX)$

$= (40 + 20) \text{ m} = 60$  m.

**13. Explanation**

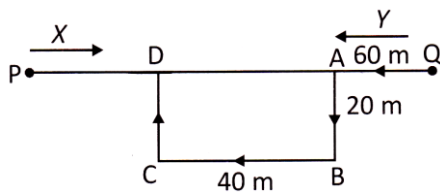
Option (d) is correct. The movements of the person are from A to F as shown in figure.



Clearly, the final position is F, is to the North-east of the starting point A.

**14. Explanation**

Option (c) is correct. Clearly Y moves 60 m from Q. upto A, then 20 m upto B, 40 m upto C and then upto D.



So,  $AD = BC = 40$  m

Thus,  $Q.D = AD + AQ = (60 + 40) \text{ m} = 100 \text{ m}$

Since X and Y travel with the same speed/ X will travel with the same speed along the horizontal as Y travels in the same time.

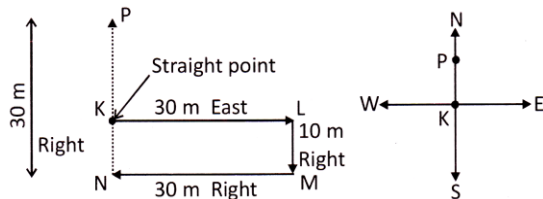
Now, total distance travelled by  $Y = (60 + 20 + 40 + 20) = 140 \text{ m}$

So, X also travels 140 m upto A.

Distance between X and  $Y = AD = Q.D - AQ, = (100 - 60) \text{ m} = 40 \text{ m}.$

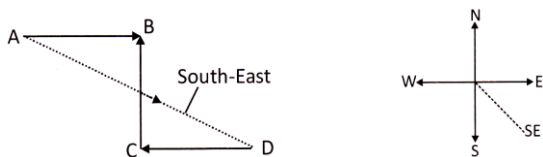
**15. Explanation**

Option (d) is correct. As per direction diagram,



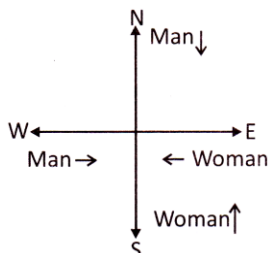
**16. Explanation**

Option (a) is correct. D's house is to the East of A's house as shown in the following direction diagram:



**17. Explanation**

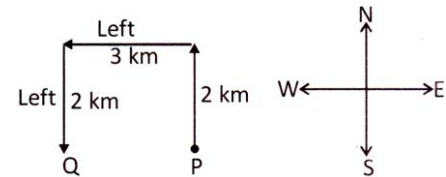
Option (d) is correct. The arrangement of man and woman according to the situation described in question is shown below:



So, it is clear from the diagram that ladies are facing North and West directions.

**18. Explanation**

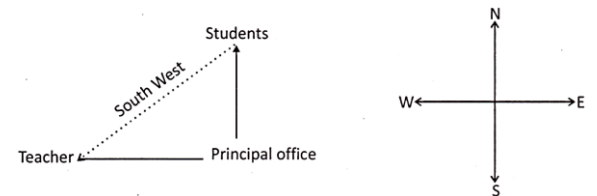
Option (a) is correct.



After taking first turn/ he travels towards west direction.

**19. Explanation**

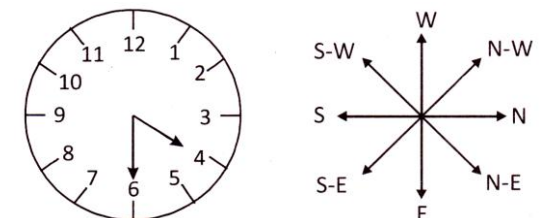
Option (b) is correct.



From the diagram, it is clear that teachers are in South-West direction with respect to students.

**20. Explanation**

Option (d) is correct.



From the diagram, it is clear that hour hand point towards North-East direction at 4:30 if minute hand points towards East direction.