DAILY QUESTIONS

14TH JUNE ’18

REASONING- DIRECTIONS
I.1) directions for the question:
A, B, C, D, E, F, G, and H are eight buildings in a colony.
Further it is known that,
A is 5 km towards the west of H, which is 3 km towards the South of C. E is 9 km towards the South of C and 8 km towards the West of B. F is 7 km towards the North of B and 4 km towards the South of G. D is 13 km towards the East of C.

Q.1) How far and in which direction is D with respect of G?

[a] $\sqrt{20}$ km, South-East
[b] $\sqrt{29}$ km, South-west
[c] $\sqrt{30}$ km, North-east
[d] $\sqrt{29}$ km, South-east
Solution 1) (d)

DK = DC - KC = 13 - 8 = 5 KM

GK = (BF + FG) - (HE + CH)
= (7+4) - (6+3) = 2 KM

DG = $\sqrt{GK^2 + DK^2}$ = $\sqrt{4 + 25}$ = $\sqrt{29}$ km

So D is $\sqrt{29}$ km towards the south-east of G.
I.2) directions for the questions:
A, B, C, D, E, F, G, and H are eight buildings in a colony. Further it is known that,
A is 5 km towards the west of H, which is 3 km towards the South of C. E is 9 km towards the South of C and 8 km towards the West of B. F is 7 km towards the North of B and 4 km towards the South of G. D is 13 km towards the East of C.

Q.2) If the distance between E and B is equal to the distance between C and T, which is towards the East of C, then how far is G with respect to T?

[a] 1 km
[b] 3 km
[c] 2 km
[d] 4 km
Solution (2) (C)

T and K are at the same position.

GT = 2 km (as FG is 4 km, GK is 2 km)

The given data can be shown as shown below:
I.3) directions for the questions:

A, B, C, D, E, F, G, and H are eight buildings in a colony. Further it is known that,

A is 5 km towards the west of H, which is 3 km towards the South of C. E is 9 km towards the South of C and 8 km towards the West of B. F is 7 km towards the North of B and 4 km towards the South of G. D is 13 km towards the East of C.

Q.3) How far is B from H?
[a] 10 km
[b] 9 km
[c] 11 km
[d] 14 km
Solution (3) (a)

Solution: The given data can be shown as shown below:

\[ BH = \sqrt{BE^2 + HE^2} = \sqrt{8^2 + 6^2} = 10 \text{ km} \]
Seven cars C1, C2, C3, C4, C5, C6 and C7 are parked in a parking lot. Further it is known that, C3 is 10 m towards the South of C1. C6 is 7 m towards the north of C7, which is 10 m towards the South of C5. C4 is 10 m towards the East of C6, which is 3 m towards the West of C1. C2 is 3 m towards the East of C5.

Q.4) How far and in which direction is C3 with respect of C2?
[a] 10 m, South  
[b] 13 m, South  
[c] 10 m, North  
[d] 13 m, North
The given data can be shown as shown below:

Solution 4) (b)
C3 is 13 km towards the south of C2.
I.5) directions for the question:

Seven cars C1, C2, C3, C4, C5, C6 and C7 are parked in a parking lot. Further it is known that, C3 is 10 m towards the South of C1. C6 is 7 m towards the north of C7, which is 10 m towards the South of C5. C4 is 10 m towards the East of C6, which is 3 m towards the West of C1. C2 is 3 m towards the East of C5.

Q.5) Which among the following cars are collinear?

[a] C5, C2, C1
[b] C1, C4, C3
[c] C1, C6, C4
[d] C1, C6, C7
Solution: The given data can be shown as shown below:

Solution 5) (c)
C1, C6 and C4 are collinear.
I.6) directions for the question:

seven cars C1, C2, C3, C4, C5, C6 and C7 are parked in a parking lot. Further it is known that, C3 is 10 m towards the South of C1. C6 is 7 m towards the north of C7, which is 10 m towards the South of C5. C4 is 10 m towards the East of C6, which is 3 m towards the West of C1. C2 is 3 m towards the East of C5.

Q.6) If a car C8 is parked exactly between C5, and C7, then how far is C6 with respect to C8?

[a] 1 m  
[b] 2 m  
[c] 3 m  
[d] 4 m
Solution: The given data can be shown as shown below:

Solution 6) (b)
C6 is 2 m away from C8.
DIRECTIONS

I.7) direction for the question:

Four ants A1, A2, A3 and A4 started from a common point. Further it is known that,

A1 moved 5 m toward the North, A2 moved 7 m towards the East, A3 moved 8 m towards the South and A4 moved 6 m towards the West. A1, A2, A3 and A4 took a right turn and moved 6 m, 8 m, 9 m and 7 m respectively. And then A2, A4, A1 and A3 took a left turn and moved 2 m, 3 m, 4 m and 5 m respectively and then stopped.

Q.7) How far and in which direction is A4 with respect to A3?

[a] 20 m, South
[b] 19 m, North
[c] 19 m, East
[d] 20 m, North
Solution:
The given data can be represented as shown below. Let S be the starting point.

Solution 7) (d)
A4 is 20 m towards the north of A3.
DIRECTIONS

I.8) direction for the question:
Four ants A1, A2, A3 and A4 started from a common point. Further it is known that, A1 moved 5 m toward the North, A2 moved 7 m towards the East, A3 moved 8 m towards the South and A4 moved 6 m towards the West. A1, A2, A3 and A4 took a right turn and moved 6 m, 8 m, 9 m and 7 m respectively. And then A2, A4, A1 and A3 took a left turn and moved 2 m, 3 m, 4 m and 5 m respectively and then stopped.

Q.8) In which direction is A1 with respect to A2?
[a] North
[b] North-east
[c] North-west
[d] South-east
Solution:
The given data can be represented as shown below. Let S be the starting point.

Solution 8) (c)
A1 is towards the North-west of A2.
I.9) direction for the question:
Four ants A1, A2, A3 and A4 started from a common point. Further it is known that,
A1 moved 5 m toward the North, A2 moved 7 m towards the East, A3 moved 8 m towards the South and A4 moved 6 m towards the West.
A1, A2, A3 and A4 took a right turn and moved 6 m, 8 m, 9 m and 7 m respectively. And then A2, A4, A1 and A3 took a left turn and moved 2 m, 3 m, 4 m and 5 m respectively and then stopped.

Q.9) Approximately, how far is A2 from A3?
[a] 20 m
[b] 18 m
[c] 21 m
[d] 19 m
Solution:
The given data can be represented as shown below. Let S be the starting point.

Solution 9) (d)

\[ A_2A_3 = \sqrt{(A_2P)^2 + (A_3P)^2} = \sqrt{(2 + 7 + 9)^2 + (5)^2} = \sqrt{18^2 + 5^2} = \sqrt{349} = 19 \text{ m} \]
DIRECTIONS

I.10) direction for the question: This question is based on the information related to different places in a city.

The bus stop is 5 km towards the North of the office, which is 4 km towards the West of the railway station. The temple is 14 km towards the South of park and is 7 km towards the East of the college, which is 3 km towards the South of the railway station. The playground is 10 km towards the North of the library, which is 1 km towards the west of the school. The airport is 9 km towards the West of the park and is 2 km towards the North of the school.

Q.10) If the shopping mall is 1 km towards the west of the airport, then how far and in which direction is the library with respect to the shopping mall?

[a] 2 km, North
[b] 1 km, South
[c] 3 km, south
[d] none of these
Solution 10) (d) the given data can be represented as shown below:

The library is 2 km towards the south of the shopping mall.