MODULE 5: CLOCK & SEATING ARRANGEMENT

CLOCK QUESTIONS WITH ANSWERS:

Question 1

If a clock started at noon, then the angle turned by hour hand at 3.45 PM is

A 117 1°/2

B 104 1°/2

C 97 1°/2

D 112 1°/2

Answer: D

Explanation:

The hour hand covers 30° in an hour

$$\therefore \text{Angle turned in } 3\frac{3}{4} \text{ hours} = 4\frac{15}{4} \text{ hours i.e.}$$

$$= 4\frac{15}{4} * 30° = \frac{225}{2}°$$

$$= 112\frac{1}{2}°$$

Question 2

Find the angle between the minutes hand and the hours hand at 10:40 ?

A 90°

B 85°

C 80°

D 75°

Answer: C

Explanation:

Lets take number 12 in clock, as the reference. hours hand make 30° in 1 hr & (1/2)° in 1 minute.

when the time is 10:40, angle made by hours hand = 10(30)+40(1/2) = 320° Minute hand makes 30° in every 5 mins==> so in 1 min, it makes 30°/5 = 6° So in 40 mins, it makes 40*6°=240°

The difference in angles is 320°-240° = 80° So the answer is option C.

Question 3

At what between 10 am and 11 am will the angle between the minutes hand and hours hand be 3°(assume that the hours hand is closer to 12 than than the minutes hand) ?

A 10:52

B 10:53

C 10:54

D 10:55

Answer: C

Explanation:

Let the time be 10 hrs x mins.

Lets measure the angle from 12 in clockwise direction,

Angle made by hours hand = 10(360°/12)+x(30°/60) = 10(30°)+x(1/2) = 300°+x/2 (1)

Angle made by minutes hand = x(360°/60) = x(6°) (2)

Given that hours hand is nearer to 12 than minutes hand, i.e; hours hand crossed minutes hand Hence, (1) - (2) = 3°

==>300°+ x/2 - 6x = 3°

==> -11x/2 = -297

==> x = 54

Hence the time will be 10:54So the answer is option C.

Question 4

At what time the hands of the clock show a mirror image of 4:10 ?

A 7:10

B 7:40

C 7:50

D 8:10

Answer: C

Explanation:

It should be 7:50

So the answer is option C.

Question 5

A watch gains 6 minutes in one hour and was set right at 8 AM. What time will it show at 6PM on thesame day?

A 8pm

B 7pm

C 8:30pm

D 7:30pm

Answer: B

Explanation:

8AM to 6PM, 10 hrs

watch gains 6 minutes in one
hour,In 10hrs it gains 10*6 =
60 minutes
Hence at 6PM, it shows
6PM+60mins = 7PMSo the answer
is option B.

Question 6

In how many ways can Alex and his 5 friends be seated around a circular table if clockwise and anti-clockwise directions are considered different?

A 120

B 720

C 60

D 360

E None of the above

Answer: A

Explanation:

If clockwise and anti-clockwise directions are considered different, the number of ways of arranging 6 people around a circular table is (6-1)! = 5! = 120 ways

Question
7

In how many ways can 8 people be seated around a circular table (if clockwise direction is not the sameas anti-clockwise direction)?

A 8!*2

B 8!/2

C 8!

D 7!/2

E 7!

Answer: E

Explanation:

In circular arrangement, there is no distinction among the seats initially. Once the first person sits in one of the seats, all the other seats can be marked based on this reference. The first person can sit in any of the 8 chairs in 1 way (since there is no distinction among the chairs initially). Now, the other 7 people can sit in the 7 remaining chairs in 7! ways.

In general, the number of ways of arranging ‘n’ distinct objects around a circular table is (n-1)!

Question 8

There are 5 chairs arranged in a circular manner in a square room. Total 6 people are to meet in a room, but since only 5 chair are available 1 person will have to stand at one of the corners of the room. In how many ways this can be done? Also note that clockwise arrangement and anti-clockwise arrangement are different.

A 642

B 386

C 482

D 524

E 576

Answer: E

Explanation:

The person who'll stand can be selected in 6 ways.

This person can be arranged in any 4 corners in 4 ways. Remaining 5 can be arranged in a 4! ways around the table.So total number of ways = 6*4*4! = 576 ways

So E is the right choice.

Question 9

A, C are running with speeds of 20m/s, 24m/s on a circular track. A is running in the clockwise direction and C is running in the anti-clockwise direction. At how many distinct points they meet on that circulartrack?

A 5

B 6

C 11

D 10

E a :None of these

Answer: C

Explanation:

If two bodies are moving in opposite direction with their speeds in the ratio a: b , the number is distinct points at whichthey meet on a circular track = a+b

Here the ratio = 20:24 ==>5:6

Therefore number of distinct points = 5+6 = 11

Question
10

A and B are running in opposite directions around a circular track of length 120 meters. If the speeds ofA and B are in the ratio 3:2, find the minimum distance between their first and 13th meeting points.

A 36 m

B 24 m

C 12 m

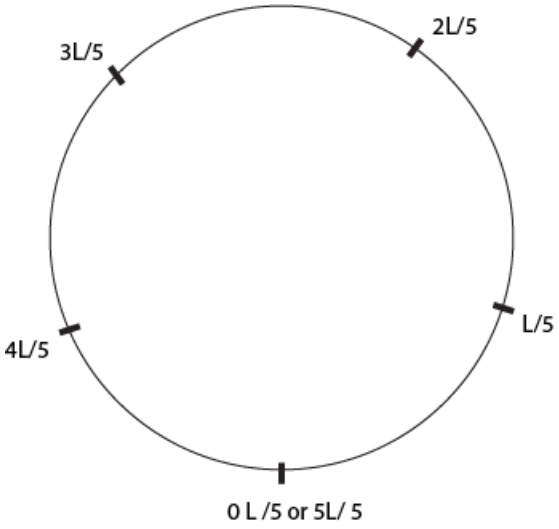
D 20 m

E None of these

Answer: B

Explanation:

As the two are running in opposite directions, the number of meeting points will be 3+2 = 5 meeting points. They are as shown on in figure.



Suppose the speeds are 3x and 2x respectively. If A runs clockwise and B counter-clockwise then they will meet at 2L/5, 4L/5, L/5, 3L/5, 5L/5, 2L/5 and so on points.

Hence, 1st point = 2L/5
13th point = L/5
Distance = | 2L/5 - L/5| = L/5 = 120/5 = 24m

Suppose A runs counter-clockwise and B clockwise then they will meet at 3L/5, L/5, 4L/5, 2L/5, 5L/5, 3L/5 and so on points.

Hence, 1st point = 3L/5
13th point = 4L/5
Distance = | 3L/5 - 4L/5| = L/5 = 120/5 = 24m

Question 11

What is the angle between the hour and minute hands of a clock 30 minutes after they meet for the thirdtime in a day?

A 150 degrees

B 165 degrees

C 180 degrees

D None of these

Answer: B

Explanation:

In thirty minutes, the minute hand covers 180 degrees and hour hand covers 15 degrees. So, angle between the hands is 165 degrees

Question 12

At what time between 7:00 and 8:00 will the minute and hour hands of a clock be pointing at exactlyopposite directions?

A 7:05 minutes 27 seconds

B 7:07 minutes 16 seconds

C 7:10 minutes 54 seconds

D None of these

Answer: A

Explanation:

At a time 7 hours and Y minutes, the hour hand makes an angle of 210+Y/2 degrees and the minutes hand makes an angle of 6Y degrees.

So, we need to solve for Y where

210 + Y/2 = 6Y + 180 or Y = 60/11 minutes which is 5 minutes 27 seconds

Question

13

How many times in a day do the minute and hour hands of a clock overlap?

A 23

B 24

C 22

D None of these

Answer: C

Explanation:

In twelve hours, the hands overlap 11 times. So, in a day, they overlap 22 times.

Question

14

A marathon starts between 5pm and 6pm. The referee realizes that the hands of the clock are interchanged when the marathon ends between 8pm and 9pm. What was the approximate duration ofthe marathon?

A 2 hours 14 minutes

B 2 hours 21 minutes

C 2 hours 46 minutes

D 2 hours 43 minutes

Answer: C

Explanation:

Suppose the marathon started at 5 hours X minutes and ended at 8 hours Y minutes. Angles made by both the hour's hands are 150+X/2 and 240+Y/2. Angles made by the minutes hands are 6X and 6Y.

We know that the difference between the angles made by the hands of the clock is same, so we equate that : 6X - (150
+ X/2) = (240 + Y/2) - 6Y => 12X - 300 - X = 480 + Y - 12 Y => 11X + 11Y = 480+300 => X+Y = (780/11) => X+Y ≈
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We know that the sum of the angles made by the hands of the clock is also same, so we equate that as well : 6X+150+X/2 = 240+Y/2+6Y => 13X + 300 = 480 + 13Y => 13(X-Y) = 180 => X-Y = (180/13) => X-Y = ≈ 14

Solving we two equations, we get X = 42.5 mins = 42 mins 30 secs and Y = 28.5 mins = 28 mins 30 secsHence, duration of the marathon is = 8:28-5:42 = 2 hours 46 mins.

Question 15

If the hour and minute hands of a clock overlap every 65 minutes, how many minutes does the clock gainor lose every day?

A 10 10/143 minutes gained

B 10 10/143 minutes lost

C 10 minutes gained

D 10 minutes lost

Answer: A

Explanati on:

An hour hand moves 1/2° per minute while a minute hand moves 6° per minute. Hence, a minute hand covers the gap of 11/2° per minute. Hence, an hour hand and minute hand would overlap every 60 mins + 30°/(11/2°) mins = 60m + 60/11 m = 65 5/11 mins.

Hence, in a normal clock, the hour hand and minute hand overlap every 65 5/11 minutes. In the given clock, they overlap every 65 minutes. Hence, the clock gains 5/11 minutes every 65 minutes.

Hence, in 24 hours, the clock would gain = (24*60)*(5/11)/65 = 24*60/143 minutes = 1440/143 minutes = 10 10/143 minutes

Question 16

A marathon starts between 5pm and 6pm. The referee realizes that the hands of the clock are interchanged when the marathon ends between 8pm and 9pm. What was the approximate start time ofthe marathon?

A 5: 23 pm

B 5: 42 pm

C 5: 44 pm

D 5: 49 pm

Answer: B

Explanation:

Suppose the marathon started at 5 hours X minutes and ended at 8 hours Y minutes. Angle made by hour in the first case will be 150 + 1/2x and the angle made by minute hand will be 6x. In the second case, the angle made by hour hand will be 240 + 1/2y and minute hand will be 6y.
We have been given that 150+ x/2 =
6y and240 + y/2 = 6x
Solving both the equations we get, x = 42.37 minutes. Start time is 5:42 pm

Question 17

How many times in twelve hours does the angle between the hour's and minute's hand of a clock beexactly one degree at the start of a minute?

A 2

B 1

C 11

D 22

Answer: A

Explanation:

The angle made by the minute hand against the 12 hour mark after 'm' minutes = 360° * (m /60) = 6m The angle made by the hour hand against the 12 hour mark after 'h' hours = 360° * (h /12) = 30h

The angle made by the hour hand against the 12 hour mark after 'h' hours and 'm' minutes = 30h + 30*m/60 = 30h + m/2

Hence, the condition given is $6m = 30 * h + m/2 \pm 1$. We need to find integral solns for this where m<60 and h<12 m = 2/11 (30h-1) or 2/11(30h+1)

The values of h where m is an integer is h=4 m=22 and h=7 m=38.

Thus, there are two solutions (4, 22) and (7, 38). Hence, 2 times in 12 hours.

Question 18

If the minutes and hours hand are identical in a clock. Given that a person checks the time at only integral values of minutes, how many times in a day can a person not be able to find the exact time?

A 22

B 20

C 11

D 0

Answer: D

Explanation:

At any time, A hours and B minutes, the angle made by the hours hand is $30A + B/2$. Similarly, the angle made by the minutes hand is 6B.

For a person to not be able to find the correct time, there should be another time $A1 : B1$ such that $30A1 + B1/2 = 6B$ and $6B1 = 30A + B/2$.

No integral solutions exist when $0 < B < 60$

Question
19

The hands of two clocks coincide every 60 minutes and 72 minutes respectively. What is the approximatetime difference between the two clocks (round to closest minute) after 24 hours as measured by a correct clock?

A 260 minutes

B 262 minutes

C 264 minutes

D 261 minutes

Answer: B

Explanation:

The hands of a correct clock coincide after every 720/11 minutes.

So, 720/11 minutes of the first clock, equal 60 minutes on a correct clock and 720/11 minutes of the second clock equal 72 minutes on a correct clock.

So, in 1 minute on a correct clock, the difference in times of the two clocks is 720/11*[1/60 - 1/72] = 2/11 minutes. So, time difference in a day is 2880/11 = 262 minutes

Question 20

A, B, C, D are standing in clockwise direction at the corners of a square of side 's'. They are start running clockwise along the sides of the square with speeds in the ratio 1:2:3:4 respectively. How much distance does A run by the time they all meet for the third time?

A 11 s

B 12 s

C 15 s

D None of these

Answer:

A

Explanation:

In the amount of time taken by A to run one side of the square, D runs all four sides and reaches where he was initially standing. Hence, A and D can only meet at D's initial position. When A travels 3s, B travels 6s and reaches the point where D is initially standing. Similarly, C travels 9s and reaches D's starting point. After the first meeting, all three meet after A completes an entire round around the square.

So, total distance covered by A =3s+4s+4s = 11s

Question 21

At what time between 2 o'clock and 3 o'clock will the two hands of the clock be at an angle of 60degrees?

A 22 minutes 14 seconds

B 19 minutes 33 seconds

C 21 minutes 49 seconds

D 23 minutes 15 seconds

Answer: C

Explanation:

The angle between the two hands at 2'o clock is 60 degrees. The speed of the minute hand is 6 deg/min and of the hour hand is 1/2 deg/min. The relative speed between the two hands is 5 and a half degrees/minute. The relative distance that has to be covered is 120 degrees. (60 degree initial difference and 60 more). Therefore, the time needed = 120/5.5 = 120*2/11 = 240/11 = 21 minutes 49 seconds approximately.

Question
22

The angle between the minute hand and hour hand of a clock when the time is 7:20 is equal to

A 45°

B 90°

C 100°

D 120°

Answer: C

Explanation:

Angle between hour hand and minute hand $= |30*H - \frac{11}{2}*M|$

where, H -> hour and M -> minutes

So, at 7:20 => H = 7 & M = 20

$$\text{=> Angle} = 30*7 - \frac{11}{2}*20$$

= 210-110 = 100°

Question 23

The angle formed by the hourhand and the minutehand of a clock at 2 : 15 p.m. is

A 27.5°

B 45°

C 22.5°

D 30°

Answer: C

Explanation:

$$\text{Angle} = \left|\frac{11}{2}M - 30H\right|$$, where M=minutes , H=hours

$$= \left|\frac{11}{2}(15) - 30(2)\right|$$

= 22.5

Question 24

A clock gains 15 minutes per day. If it is set right at 12 noon, the time it shows at 4 AM is

A 4.20 AM

B 4.30 AM

C 4.02 AM

D 4.10 AM

Answer: D

Explanation:

A clock gains 15 minutes per day.

From 12 noon to 4 a.m., time difference = 16 hours

∵ 24 hours ≡ 15 minutes

$$\Rightarrow 16 \text{ hours} \equiv 24 \times \frac{15}{16} = 10 \text{ minutes}$$

∴ Time shown in watch = 4:10 a.m.

=> Ans - (D)

Question
25

Kanchan bought a clock with 25% discount on marked price. She sold it with 75% gain on the price she bought. What was her profit percentage on the marked price?

A 31.25

B 50

C 56.25

D 60

Answer: A

Explanation:

Let Marked price of clock = Rs. 100x

Discount % = 25%

$$\Rightarrow \text{Price at which Kanchan bought the clock} = 100x - \left(100 \times \frac{25}{100}x\right) = Rs.\ 75x$$

Profit % = 75%

$$\Rightarrow \text{Price at which Kanchan sold the clock} = 75x + \left(100 \times \frac{75}{100}x\right)$$

$$= \frac{7}{4} \times 75x = Rs.\ 131.25x$$

$$\therefore \text{Profit percentage on the marked price} = \frac{(131.25x - 100x)}{100x} \times 100$$

= 31.25%

=> Ans - (A)

SEATING ARRANGEMENT QUESTIONS WITH ANSWERS:

Directions (Q. 1-5) Study the following information to answer the given questions.

i) There are 9 friends A, B, C, D, E, F, G, H seated in a circle facing the centre.

ii) AC, DG, HE and FB are seated adjacent to each other. A is also seated adjacent to H.

iii) B is 2nd to the right of H.

iv) E is 3rd to the right of C.

1. Who is 2nd to the left of A?

   a) D b) G c) F

   d) Cannot be determined e) None of these

2. Who is 3rd to the left of C?

   a) G b) D c) B

   d) Cannot be determined e) None of these

3. What is C's position with reference to E?

   a) 5th to the right b) 4th to the left c) 4th to the right

   d) 3rd to the right e) Cannot be determined

4. Who is 2nd to the right of A?

   a) B b) E c) F

   d) Cannot be determined e) None of these

5. Who among the following pairs may not be seated adjacent to each other?

   a) AH b) DC c) EB

   d) Cannot be determined e) None of these

Directions (Q. 6-11) Read the following information carefully and answer the questions thatfollow.

Seven friends A, B, C, D, E, F and G are sitting around a circular table facing either the centre or outside. Each one of them belongs to a different department viz. Finance, Marketing Sales, HR, Corporate Finance, Investment Banking and Operations but not

necessarily in the same order.

C sits third to the right of G. G faces the centre. Only one person sits between C and the person working in the HR department immediate neighbours of C face outside. Only one person sits between F and D. Both F and D face the centre. D does not work in the HR department. A works in Investment Banking Department. A faces the centre. Two people sit between the persons who work in Investment Banking and Marketing Departments. The person who works in Corporate Finance sits to the immediate left of E. C faces same direction as E. The person who works in corporate finance sits to the immediate left of the person who works for Operations Department.

6. For which of the following departments does B work?
   a) Finance b) Marketing c) HR
   d) Corporate Finance e) Operations

7. What is position of B with respect to the person who works for Sales Department?
   a) Immediate right b) Third to the left c) Second to the right
   d) Second to the left e) Fourth to the right

8. Who sits to the immediate right of E?
   a) The person who works for Marketing Department
   b) C
   c) B
   d) The person who works for HR Department

e) A

9. Who amongst the following sits exactly between C and the person who works for HR Department?
   a) B
   b) The person who works for Marketing Department
   c) The person who works for Operations Departmentd)D
   e) G

10. Who amongst the following sit between the persons who work for Marketing and Investment Banking departments when counted for the left hand side of the person working for Marketing Department?
    a) F and G b) E and C c)C and B
    d) F and D e) B and D

11. How many people sit between the person who workds for Operations Department and A,when counted from the right hand side of A?
    a) One b) Two c) Three
    d) Four e) None of these

Directions (Q. 12-19) Read the following information carefully to answer the given questions.

Eight persons from different banks viz., Bank of India, Punjab National Bank, Canara Bank, Bank of Baroda, Oriental Bank of Commerce, Dena Bank, Union Bank of India and Bank of Maharashtra are sitting in two parallel rows containing four people each, in such a way that there is an equal distance between adjacent persons. The names of these persons are A, B, C, D, E, F, G and H. Each members seated in a row faces another member of the other row. (All the information given above does not necessarily represents the order of seating as in the final arrangement)

- A faces north and seated second to the left of the person, who is from Punjab National Bank. The person from Oriental Bank of Commerce is opposite to one who is second to the left ofH.
- The persons from Bank of Baroda is not near to H and F and not at the end of the row. Theperson from Canara Bank is opposite to the person who is from Dena Bank.
- The person from Bank of India is not at the end of the row but left of the person who is fromCanara Bank.
- D is immediately right of the person who is from Bank of Maharashtra. The person fromCanara Bank faces north while D faces South and opposite to B.

The person from Union Bank of India is not opposite to E. The person from Canara Bank is oppositeto C.

12. Which of the following is true regarding E?
    a) The person from Bank of Maharashtra faces E
    b) The person from Dena Bank is an immediate neighbour of E
    c) The person who is second to the right of G faces E
    d) E is from Union Bank of India
    e) E sits at one of the extreme end of the row

13. Who is seated between G and the person from Bank of Maharashtra?
    a) The person from Bank of
    Barodab)H

c) F

d) E

e) The person from Dena Bank

14. Who amongst the following sit at extrememe end of the row?

a) A and the person from Bank of Maharashtra

b) The person from Punjab National Bank and Union Bank of India

c) The person from Dena Bank and E

d) The person from Union Bank of India and C

e) G and B

15. Who amongst the following faces the person from Bank of Baroda?

a) The person from Bank of India

b) F

c) A

d) The person from Union Bank of India

e) The person from Oriental Bank of Commerce

16. ‘B’ is related to ‘Dena Bank’ in the same way as ‘F’ is related to ‘Bank of Baorda’ on thegiven arrangement, who amongst the following is ‘G’ related to following the same pattern?

a) Oriental Bank of Commerce

b) Punjab National Bank

c) Bank of India

d) Canara Bank

e) Union Bank of India

17. Four of the following five are alike in a certain way based on the given seating arrangementand thus form a group, which is the one that does not belong to that group?

a) Canara Bank

b) C

c) Union Bank of India

d) Oriental Bank of Commerce

e) Bank of Maharashtra

18. G is from which of the following banks?
    a) Oriental Bank of Commerce
    b) Dena Bank
    c) Bank of Maharashtra
    d) Canara Bank
    e) Punjab National Bank

19. Who amongst the following is from Punjab National Bank?
    a) E b) H c) G
    d) C e) None of these

Directions (Q. 20-26) Study the following information carefully to answer the questions thatfollows.

Eight persons namely A, B, C, D, E, F, G and H are sitting in a straight line from East toWest. Some are facing North direction and some are facing South direction.

H sits to the third left of C and faces South. F is sitting at one of the extreme ends and is facing North. B and G are facing in same direction and person sitting between them is facing in opposite direction. A is sitting third from left end and is facing South direction. A is sitting adjacent to E and both are facing in opposite direction. D is sitting to the right of B and both are facing in same

direction. C is facing in North direction. A and D are not neighbours. Neighbors of H are facing insame direction which is opposite to the direction of H is facing. E sits to the right of A.

20. Who is sitting between A and H?

a) F b) E c) G

b) B e) None of these

21. Which of the following pairs facing the same direction?

A) E, A b) G, H c) A, G

d) H, D e) B, D

22. How many persons are facing in North direction?

a) 2 b) 3 c) 4

d) 5 e) 6

23. Who is sitting third from the eastern end of the arrangement?

a) E b) G c) B

d) C e) None of these

24. How many persons sitting between E and B?

a) 2 b) 3 c) 4

d) 5 e) 6

25. Which one of the following statement is correct?

a. A sits between G and B

b. D sits to thesecond left of H

c. H and B are facing same direction

d. Person sitting to the left of A faces direction

e. All of the above

26. Who sits 3rd to the left of A?

a. B b) D c) H

d) G e) None of these

Directions (Q. 27-31) Study the following information and answer the question given below.

Eight people E, F, G, H, J , K, L and M are sitting around a circular table facing the centre. Each of them is of a different profession Chartered Accountant, Colomnist, Doctor, Engineer, Financial Analyst, Lawyer, Professor and Scientist but not necessarily in the same order. F I s sitting second to the left of K. The Scientist is an immediate neighbour of K. There are only three people between the Scientist and E. Only one person sits between the Engineer and E. The Coloumnist is to t he immediate r ight of the Engineer. M is second to the right of K. H is the Scientist. G and J are immediate neighboursof each other. Neither G nor J is an Engineer. The Financjial Analyst is to the immediate left of F. The Lawyer is second to the right of the Coloumnist. The Professor is an immediate neighbour of the Engineer. G is second to the right of the Chartered Accountant.

27. Who is sitting second to the right of E?

a) The Lawyer b) G c) The Engineer

d) F e) K

28. Who amongst the following is the Professor?

a) F b) L c) M

d) K e) None of these

29. Four of the following five are alike in a certain way based on the given arrangement andhence from a group. Which of the following does not belong to that group?

a. Chartered Accountant

b. M – Doctor

c. J – Engineer

d. Financial Analyst – L

30. What is the position of L with respect to the Scientist?

a. Third to the left

b. Second to the right

c. Second to the left

d. Third to the right

e. Immediate right

31. Which of the following statements is true according to the given arrangement?

a. The Lawyer is second to the left of the Doctor

b.E is an immediate neighbour of the Financial Analyst

c.H sits exactly between F and the Financial Analyst

d.Only four people sit between the Coloumnist and F

e.All of the given statements are true

Directions (Q. 32-36) Study the following information carefully and answer the given questions:-

D, E, F, H and I are seated in a circle facing the centre. A, B and C are also seated in the same circle but two of them are not facing the centre. F is second to the left of C. E is third to the right of A. B is third to left of D, who is immediate neighbor of H and I. C is second to the right of D and third to the right of B.

32. Which of the following pairs is not facing the centre?

a. BC b) AC c) CA

d) BD e) None of these

33. What is the position of D with respect to F?

a. Second to the right

b. Third to the left

c. Fifth to the right

d. Cannot be determined

e. None of these

34. Who among the following is second to the left of B?

a. A b) H c) I

d) Either H or I e) None of these

35. If H is on the immediate right of E then what is H's position with respect to C?

a. Third to the left

b. Third to the right

c. Fifth to the left

d. Cannot be determined

e. None of these

36. Which of the following is/are the possible position(s) of I with respect to A?

a. Fourth to the right

b. Second to the left

c. Fourth to the left

d. Only a and c

e. All of the above

Answers:

1. Option D
2. Option E
3. Option A
4. Option B

5. Option B
6. Option A
7. Option D
8. Option D
9. Option B
10. Option C
11. Option A
12. Option B
13. Option A
14. Option D
15. Option A
16. Option B
17. Option E
18. Option A
19. Option B
20. Option C

21. Option E
22. Option E
23. Option C
24. Option B
25. Option B
26. Option A
27. Option B
28. Option D
29. Option C

30. Option B
31. Option A
32. Option A
33. Option E
34. Option D
35. Option B
36. Option E