
# *Memory Based Paper*

# *SBI PO Prelims*

# *2021*

**Direction:- Seven statements are given below, which are jumbled in any random order. The first and the last statements are fixed. The other statements will form a coherent and meaningful paragraph, when arranged in the correct sequence. Arrange the sentences in the right order and answer the questions that follow.**

**The Praying Mantis is named for its prominent front legs, which bend to assume a position of prayer.**

(a) Its mating behaviour is widely known: The bigger adult female devours the male after, or sometimes during, the mating process, for nutrition.

(b) It does make them wary of the female's size and strength at times, so they use the 'stop-and-go' tactic, which helps them stalk females without being detected.

(c) Praying mantises mostly cannot see stationary objects so males generally freeze if they see females move or turn their heads.

(d) It is a large insect found across the Indian subcontinent.

(e) This behaviour doesn't seem to deter males from reproduction.

**Though males try and escape as soon as the mating is complete for their own safety, a lot of them end up being eaten.**

Question No. 1

Which of the following is the third sentence of the paragraph?

**Options :**

1. c

2. d

3. a

4. b

5. e

***Answer : e***

***The correct order would be d, a, e, b, c***

*At first, we should be aware of what is being talked about. Both d and a can be the next sentence, but d does not fit anywhere else, but only after the first fixed sentence. None of the sentences other than a follows d. a talks about the common behaviour of a praying mantis. It is clearly followed by e. After e, b is correct because, after saying that the behaviour doesn't deter the male, it should be said what the male will do in such situation. At last, c is correct.*

Question No. 2

Which of the following is the second sentence of the paragraph?

**Options :**

1. d
2. c
3. e
4. a
5. b

*Answer : a*

*The correct order would be d, a, e, b, c*

*At first, we should be aware of what is being talked about. Both d and a can be the next sentence, but d does not fit anywhere else, but only after the first fixed sentence. None of the sentences other than a follows d. a talks about the common behaviour of a praying mantis. It is clearly followed by e. After e, b is correct because, after saying that the behaviour doesn't deter the male, it should be said what the male will do in such situation. At last, c is correct.*

Question No. 3

Which of the following is the first sentence of the paragraph?

**Options :**

1. e

2. d

3. a

4. c

5. b

***Answer : d***

***The correct order would be d, a, e, b, c***

***At first, we should be aware of what is being talked about. Both d and a can be the next sentence, but d does not fit anywhere else, but only after the first fixed sentence. None of the sentences other than a follows d. a talks about the common behaviour of a praying mantis. It is clearly followed by e. After e, b is correct because, after saying that the behaviour doesn't deter the male, it should be said what the male will do in such situation. At last, c is correct.***

Question No. 4

Which of the following is the fifth sentence of the paragraph?

**Options :**

1. a

2. c

3. e

4. d

5. b

*Answer : c*

*The correct order would be d, a, e, b, c*

*At first, we should be aware of what is being talked about. Both d and a can be the next sentence, but d does not fit anywhere else, but only after the first fixed sentence. None of the sentences other than a follows d. a talks about the common behaviour of a praying mantis. It is clearly followed by e. After e, b is correct because, after saying that the behaviour doesn't deter the male, it should be said what the male will do in such situation. At last, c is correct.*

Question No. 5

Which of the following is the fourth sentence of the paragraph?

**Options :**

1. d

2. a

3. e

4. c

5. b

*Answer : b*

*The correct order would be d, a, e, b, c*

*At first, we should be aware of what is being talked about. Both d and a can be the next sentence, but d does not fit anywhere else, but only after the first fixed sentence. None of the sentences other than a follows d. a talks about the common behaviour of a praying*

*mantis. It is clearly followed by e. After e, b is correct because, after saying that the behaviour doesn't deter the male, it should be said what the male will do in such situation. At last, c is correct.*

**Direction:- Read the passage and answer the following questions.**

Researchers at the University of California San Diego have devised an artificial intelligence (AI) tool to predict the level of loneliness in adults, with 94% accuracy. The tool used Natural Language Processing (NLP) developed by IBM to process large amounts of unstructured natural speech and text data. It analysed factors like cognition, **mobility**, sleep and physical activity to understand the process of aging. This tool is an example of how AI can be used in devices to detect mental health conditions. Part of affective computing, the modern version of the field roughly dates back to MIT lab professor Rosalind Picard's book Affective Computing, published in 1997. Picard put forth theories of how research of emotions can be improved through new technologies. Since machines are good at analysing large amounts of data, they can listen to voice inflections and recognise when those inflections correlate with stress or anger, according to research by business school MIT Sloan. Earlier in October, laptop maker HP introduced a virtual reality (VR) headset that uses sensors to measure physiological responses like facial expressions, eye movement and heartbeat to provide user-centric gaming experiences. The benefits of emotion-sensing tech include personalisation, especially in corporate and medical fields where user experiences are subjective. In medicine, nurse-bots keep track of a patient's wellbeing in addition to reminding them to take medication. AI-controlled software can help practitioners diagnose depression and dementia via voice analysis. In the workplace, AI in the form of chatbots and robots is said to provide judgment-free, unbiased and quick assistance to users. The use of AI in tracking human emotions has been criticised, with **bias** being the top concern. For instance, emotional analysis technology assigns more negative emotions to black men's faces than white men's faces, according to a study titled 'Racial Influence on Automated Perceptions of Emotions' written by a professor at University of Maryland. AI is not **sophisticated** enough to understand cultural differences in expressing and reading emotions, making it harder to draw accurate conclusions. For instance, a smile might mean one thing in Germany and another in Japan. Confusing these meanings can lead to make wrong decisions, especially in businesses, according to Harvard Business Review. Institutions need to be aware of potential AI biases that may affect the **accuracy** of findings.

Question No. 6

Who developed the AI tool to predict the level of loneliness in adults, using NLP?

**Options :**

1. Researchers at the University of California San Diego

2. IBM

3. MIT lab professor Rosalind Picard

4. Researchers of Affective Computing

5. Professors at MIT

***Answer : Researchers at the University of California San Diego***

***In the passage, it is mentioned that NLP was developed by IBM. The researchers at the University created an AI tool that used NLP, developed by IBM.***

Question No. 7

How much is the accuracy of the tool created by the researchers?

**Options :**

1. 6%

2. 24%

3. 80%

4. 94%

5. 100%

*Answer : 94%*

*In the passage, it is given that the accuracy of the tool is 94%.*

Question No. 8

What factors do NLP analyse?

**Options :**

1. cognition, sleep, physical activity and understanding

2. mobility, sleep, cognition and physical activity

3. cognition, sleep, mobility and aging

4. cognition, mobility, sleep, physical activity and aging

5. None of these

*Answer : mobility, sleep, cognition and physical activity*

*It is clearly given in the passage that "It analysed factors like cognition, mobility, sleep and physical activity to understand the process of aging". So, B is correct.*

Question No. 9

What does the research by the business school MIT Sloan indicate?

**Options :**

1. Machines can listen to voice inflections and can recognise when those inflections correlate with stress or
anger.
2. The use of machines to analyse human emotions will not work out, as AI cannot analyse human emotions.

3. Emotional analysis technology assigns more negative emotions to black men's faces than white men's faces.
4. Machines are unable to analyse large amounts of data, hence their calculations about the inflections could go wrong.
5. All of these

***Answer : Machines can listen to voice inflections and can recognise when those inflections correlate with stress or anger.***

***In the passage, it is given that "Since machines are good at analysing large amounts of data, they can listen to voice inflections and recognise when those inflections correlate with stress or anger, according to research by business school MIT Sloan."***

Question No. 10

Who wrote the book Affective Computing?

**Options :**

1. The researchers at the University of California San Diego
2. a professor at the MIT lab.
3. a professor at University of Maryland
4. Researchers of MIL Sloan.
5. None of these.

***Answer : a professor at the MIT lab.***

***In the passage, it is given that "Part of affective computing, the modern version of the field roughly dates back to MIT lab professor Rosalind Picard's book Affective Computing."***

Question No. 11

According to the passage, how does of emotion-sensing tech help in the field of medicine?

**Options :**

1. The nurse-bots could keep track of a patient's wellbeing and could remind them to take medicine.

2. Through image analysis, they could help practitioners diagnose depression and dementia.

3. Chatbots and robots could provide judgment-free, unbiased and quick assistance.

4. All of these

5. None of these

***Answer : The nurse-bots could keep track of a patient's wellbeing and could remind them to take medicine.***

***B- AI controlled software helps practitioners diagnose depression and dementia through voice analysis, not image analysis.***

***C- This is the benefit of using emotion-sensing tech in the corporate field.***

Question No. 12

Which of the following is correct according to the passage?

**Options :**

1. HP introduced a VR headset that would provide physiological responses like facial expressions, eye movement and heartbeat in order to measure user-centric gaming experiences.

2. AI has become so sophisticated that it now understands the cultural differences in expressing and reading emotions and helps in drawing accurate conclusions.

3. Studies have found that the use of AI in tracking human emotions has a bias.

4. Both A and C

5. All are correct.

***Answer : Studies have found that the use of AI in tracking human emotions has a bias.***

*A- The VR headset is designed to provide user-centric gaming experience by measuring various parameters and not the other way round.*

*B- AI is not sophisticated to understand the cultural differences till now.*

*C- This is true. The study titled 'Racial Influence on Automated Perceptions of Emotions' shows this.*

Question No. 13

Which of the following words have the same meaning as the word ‘sophisticated’?

**Options :**

1. advanced
2. affirm
3. indicate
4. improvised
5. artificial

*Answer : advanced*

*The word ‘sophisticated’ means ‘intelligent or made in a complicated way and therefore able to do complicated tasks’. This is a synonym of ‘advanced’. Improvised means ‘created and preformed spontaneously’.*

Question No. 14

Which of the following is a near antonym of the word ‘mobility’?

**Options :**

1. tiredness

2. recurrence

3. stillness

4. horrible

5. attention

***Answer : stillness***

***The word 'mobility' means 'the ability to move easily'.***

***The word 'stillness' means 'total lack of movement or changing of position'.***

Question No. 15

Which of the following is a near antonym of the word 'bias'?

**Options :**

1. impractical

2. impossible

3. important

4. imprisonment

5. impartial

***Answer : impartial***

***The word 'bias' means 'the action of supporting or opposing a particular person or thing in an unfair way'. The word 'impartial' means 'not supporting any of the sides involved in an argument'.***

Question No. 16

Which of the following is a near synonym of the word 'accuracy'?

**Options :**

1. versatility

2. velocity

3. verbosity

4. veracity

5. variety

*Answer : veracity*

*The word 'accuracy' means 'the fact of being exact or correct'.*

*The word 'veracity' means 'the quality of being true, honest, or accurate'.*

**Direction:- In each of the questions given below, four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should replace each other in order to make the sentence grammatically and contextually correct. Find the correct combination of words that replace each other. If the sentence is correct as it is, select 'E' as your option.**

Question No. 17

The Games were **managed (A)** under **pull off (B)** scrutiny and amid constant pressure from locals, but the organizers **held (C)** to **intense (D)** a clean show.

**Options :**

1. Only A-B

2. Only C-D

3. A-C and B-D

4. A-B and C-D

5. No exchange required

***Answer : A-C and B-D***

*Here, 'pull off scrutiny' is incorrect. The only exchange possible is 'intense scrutiny'. So, B should be exchanged with D.*

*Also, C is not in its correct place. Exchanging A and C will make it right.*

*Pull off- to succeed in doing something difficult or unexpected.*

*The Games were **held** under **intense** scrutiny and amid constant pressure from locals, but the organisers **managed** to **pull off** a clean show*

Question No. 18

Human rights experts **pause (A)** with the United Nations called on countries to **working (B)** the sale and transfer of spyware and other surveillance technology until they set **ensure (C)** governing its use, to **rules (D)** it won't impinge upon human rights.

**Options :**

1. Only A-C
2. Only B-C
3. A-D and B-C
4. A-B and C-D
5. No improvement required

***Answer : A-B and C-D-*** *Here, at C, 'rules' is correct contextually. So, exchanging C-D is correct.Also, A and B are inappropriate at their place. Exchanging A-B is incorrect.Human right experts **working** with the United Nations called on countries to **pause** the sale and transfer of spyware and other surveillance technology until they set **rules** governing its use, to **ensure** it won't impinge upon human rights.*

Question No. 19

The Minister said the **decision (A)** would be **satisfaction (B)** in ensuring smooth and hassle-free **procurement (C)** to the **instrumental (D)** of the farmers.

**Options :**

1. Only A-C
2. Only B-D
3. Only C-D
4. A-B and C-D
5. No exchange required

***Answer : Only B-D***

*B is grammatically incorrect at its place. It should be exchanged. D is also incorrect at its place. So, exchanging B-D would make the sentence correct.*

*The Minister said the **decision** would be **instrumental** in ensuring smooth and hassle-free **procurement** to the **satisfaction** of the farmers.*

**Direction:- Read each sentence to find out whether there is any grammatical error in it. The error, if any, will be in one part of the sentence. Mark the part with the error as your answer. If there is no error, mark 'No error' as your answer (Ignore the errors of punctuation, if any).**

Question No. 20

His peculiar mix (A)/of laconicism and loquaciousness (B)/means that when he talks, (C)/you tend listening closely (D).

**Options :**

1. His peculiar mix
2. of laconicism and loquaciousness
3. means that when he talks
4. you tend listening closely
5. No error

***Answer : you tend listening closely***

*Here, 'listening' is incorrect, instead, 'to listen' should be used.*

*His peculiar mix of laconicism and loquaciousness means that when he talks, you tend **to listen** closely.*

Question No. 21

In a compact space, (A)/a narrow paint wardrobe or (B)/corner table and chairs can serve as (A)/a unique area of interest within the space (D).

**Options :**

1. In a compact space
2. a narrow paint wardrobe or
3. corner table and chairs can serve as
4. a unique area of interest within the space
5. no error

***Answer : a narrow paint wardrobe or***

*Here, the participle form of 'paint' should be used as it is used an adjective. So, 'painted' is correct.In a compact space, a narrow **painted** wardrobe or corner table and chairs can serve as a unique area of interest within the space.*

Question No. 22

The relation of the laticiferous tissue to the assimilating cells as well as various other facts, (A)/point to the conclusion that the laticiferous system (B)/has an important function in conducting plastic substances, (C)/in addition to acting as an excretory reservoir (D).

**Options :**

1. The relation of the laticiferous tissue to the assimilating cells as well as various other facts
2. point to the conclusion that the laticiferous system
3. has an important function in conducting plastic substances
4. in addition to acting as an excretory reservoir
5. No error

***Answer : point to the conclusion that the laticiferous system***

***Here, the subject is 'the relation', which is singular. When a phrase comes in between the subject and the verb, the verb still agrees with the subject, not the noun or pronoun in the phrase following the subject.***

***So, 'points' is correct.***

***The relation of the laticiferous tissue to the assimilating cells as well as various other facts, points to the conclusion that the laticiferous system has an important function in conducting plastic substances, in addition to acting as an excretory reservoir.***

**Direction:- Choose the correct option that best expresses the meaning of the idiom as used in the given sentence.**

Question No. 23

Not getting that job turned out to be **a blessing in disguise** as the firm went out of business only a few months later.

**Options :**

1. tragic fate
2. unfortunate experience
3. wrong strategy
4. an apparent misfortune that has good results later.
5. None of these

***Answer : an apparent misfortune that has good results later.***

***Not getting the job was a misfortune, but the firm went out of business soon. So, the person considered himself lucky for not entering that job. Hence the idiom.***

Question No. 24

Can't help thinking that they are on the right track and it's we who are **barking up the wrong tree**

**Options :**

1. blaming the wrong person
2. following a wrong course of action
3. on a wild goose chase
4. left clueless
5. None of these

***Answer : following a wrong course of action***

***The idiom 'barking up the wrong tree' means 'trying to do something in a way that will not work' or 'to be looking for solutions in the wrong place'.***

Question No. 25

The manager was just **pulling his leg** when he told the assistant that the company was going to shut down.

**Options :**

1. mocking him
2. seeking his opinion
3. teasing him
4. comparing apples to oranges
5. None of these

***Answer : teasing him***

***The idiom 'pull someone's leg' means 'to tell someone something that is not true as a way of joking with the person'.***

**Direction:- In the following sentence, a part of the sentence is highlighted in bold. Below it, some options are suggested which may improve the highlighted part of the sentence, to make it meaningful and grammatically correct. Choose which of the following option(s) can successfully replace the highlighted part to make the sentence meaningful and grammatically correct. If the sentence is grammatically correct and requires no improvement, choose option E), i.e. No improvement required.**

Question No. 26

If the idea of **breaking in China as a major economic partner now seems** premature in light of the many unresolved political problems, so is talk of a complete disengagement on trade.

(i) breaking in China for a major economic partner now seems

(ii) roping in China as a major economic partner now seems

(iii) arguing China as a major economic partner now seemed

(iv) persuading China as a major economic partner now seemed

**Options :**

1. Only i

2. Only iv

3. Both i and iii

4. Both ii and iv

5. No correction required

***Answer : Both ii and iv***

***The phrase 'breaking in' is used incorrectly here. 'Break in' means 'to interrupt' or 'burgle'.***

***The phrase 'roping in' is correct, as 'rope in' means 'to persuade someone to do something for you'. So, ii and iv are correct.***

Question No. 27

For a data journalist, it's been a real joy having such high-quality data **to working with and play with for the last few weeks**

(i) to work with and play with for the last few weeks

(ii) to work on and play with for the last few weeks

(iii) to working with and playing for the last few weeks

(iv) to be working and playing as the last few weeks

**Options :**

1. Only i
2. Both i and ii
3. Only iii
4. i, ii and iv
5. No correction required

*Answer : Both i and ii*

*The word 'working' is to be changed to 'work', in order to maintain tense consistency.*

*To 'work with something' means 'to do work with some tool or instrument' here, it is correct.*

*To 'work on something' means 'to spend time repairing or improving something', which is also correct. The phrase 'playing for' is contextually incorrect. Also, iv is grammatically incorrect.*

Question No. 28

Two years **after it wrecked havoc in some delta districts**, cyclone Gaja looms over the fate of candidates in nine assembly constituencies in the region.

(i) after it wreaked havoc in some delta districts
(ii) after they wrecked havoc in some delta districts
(iii) after it wrecked some delta districts
(iv) after it wrecked havoc in some of the delta districts

**Options :**

1. Only ii
2. Both i and iv
3. Both i and iii
4. ii, iii and iv
5. No correction required

*Answer : Both i and iii*

*The phrase 'wreaked havoc' is correct. The word 'to wreck' means 'to ruin something', and 'to wreak' means 'to cause something to happen'. But, 'wrecked some delta districts' is correct. It means ruined some delta districts.*

Question No. 29

I felt irritated **when I saw the invigilator check off the answer sheet** as soon as I handed it over, but he helped me correct a mistake in it, that could have made my script invalid.

(i) when I saw the invigilator check through the answer sheet

(ii) when I saw the invigilator check over the answer sheet

(iii) when I saw the invigilator check in the answer sheet

(iv) when I saw the invigilator check by the answer sheet

**Options :**

1. Both i and ii

2. Both iii and iv

3. i, iii and iv

4. Only iii

5. No correction required

***Answer : Both i and ii***

*The phrase 'check through/over' means 'to examine something carefully to make sure that it is correct or acceptable'.(**Check in**- arrive and register at a hotel or airport; **Check by**- go to a place to see if everything is okay)*

Question No. 30

While they may succeed with vaccination, **where many countries are failing in addressing** the mental health challenges of freedom-constrained children and youth.

(i) where many countries are failing is in addressing

(ii) when many countries are failing in addressing

(iii) many countries are failing in addressing

(iv) where many countries fail in address

**Options :**

1. Only ii
2. Both i and iii
3. Only iv
4. i, ii and iii
5. No correction required

***Answer : Both i and iii***

*The sentence starts with 'while' and it seems incomplete. The word 'is' is required to complete it. Or, removing 'where' will complete it and give a comprehensive meaning. Using 'when' instead of 'where' does not complete the sentence. Also, iv is grammatically incorrect.*

**Direction:- What will come in place of question mark (?) in the following number series?**

Question No. 31

6, 7, 16, 51, 208, ?

**Options :**

1. 1015
2. 1030
3. 1045
4. 1024
5. None of these

***Answer : 1045***

*6 × 1 + 1 = 7*

*7 × 2 + 2 = 16*

*16 × 3 + 3 = 51*

*51 × 4 + 4 = 208*

*208 × 5 + 5 = 1045*

Question No. 32

10, 20, 60, 300, ?, 23100

**Options :**

1. 2100

2. 900

3. 6800

4. 8500

5. None of these

*Answer : 2100*

*10 × 1 = 10*

*10 × 2 = 20*

*20 × 3 = 60*

*60 × 5 = 300*

*300 × 7 = 2100*

*2100 × 11 = 23100*

Question No. 33

3, 8, 18, 33, 53, ?

**Options :**

1. 98
2. 78
3. 68
4. 88
5. None of these

***Answer : 78***

***3 + 5 = 8***

***8 + 10 = 18***

***18 + 15 = 33***

***33 + 20 = 53***

***53 + 25 = 78***

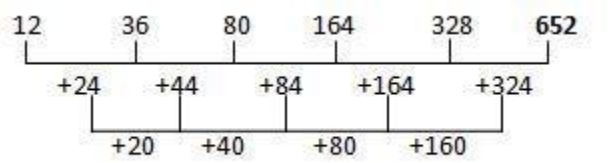
Question No. 34

12, 36, 80, 164, 328, ?

**Options :**

1. 540
2. 676
3. 652
4. 588
5. None of these

**Answer : 652**




Question No. 35

15, 23, 30, 36, 41, ?

**Options :**

1. 45
2. 52
3. 46
4. 48
5. None of these

***Answer : 45***

***15 + 8 = 23***

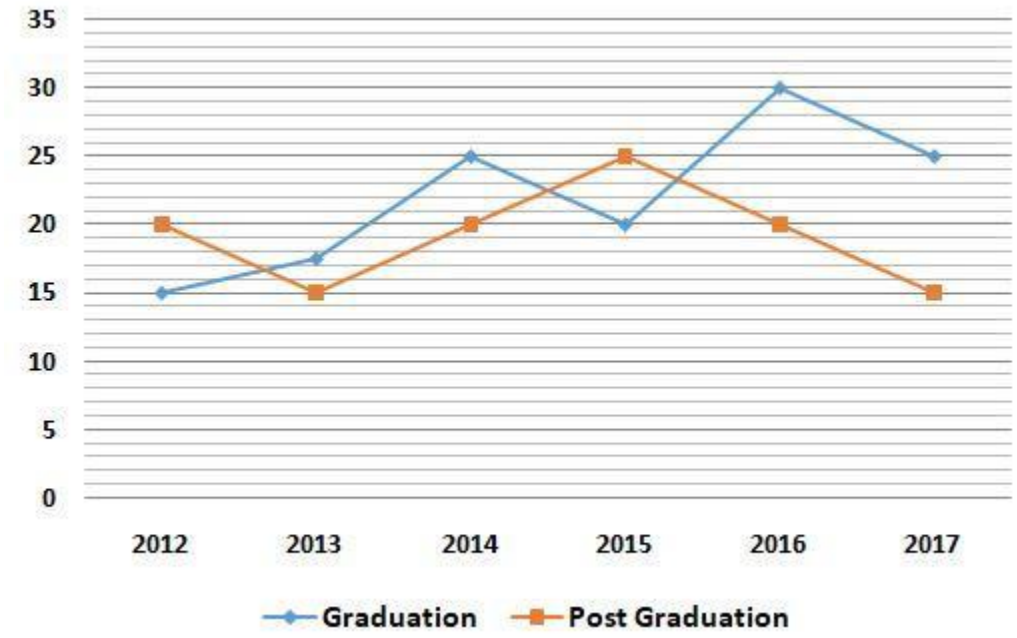
***23 + 7 = 30***

***30 + 6 = 36***

***36 + 5 = 41***

***41 + 4 = 45***

**Direction:- The line graph shows the number of students (in Lakh) who applied for Graduation and Post Graduation over different years.**




Question No. 36

What is the ratio of students who applied for Graduation in 2013, 2015 and 2016 together to the students who applied for Post Graduation in 2012, 2013 and 2017 together?

**Options :**

1. 15:11

2. 13:8

3. 27:20

4. 21:16

5. None of these

***Answer : 27:20***

***Number of students who applied for Graduation in 2013, 2015 and 2016 together = 17.5 + 20 + 30 = 67.5***

*Number of students who applied for Post Graduation in 2012, 2013 and 2017 together = 20 + 15 + 15 = 50*

*Required ratio = 67.5 : 50 = 27:20*

Question No. 37

If in year 2014, 20% of students who applied for Post Graduation also applied for Graduation then the numbers of students who apply only for Graduation are what percent of number of students who apply only for Post Graduation in year 2014.

**Options :**

1. (525/4)%
2. (504/3)%
3. (536/9)%
4. (512/7)%
5. None of these

*Answer : (525/4)%*

*Students only apply for Graduation in 2014 = 25 – [20/100 × 20] = 21 Lakh*

*Required% = [21/(20 – 4)] × 100 = (21 × 25)/4 = (525/4)%*

Question No. 38

What is the difference between average of students who apply for Graduation over all years and average of students who apply for Post Graduation over all years? (approximately)

**Options :**

1. 2L
2. 5L
3. 3L
4. 4L
5. None of these

***Answer : 3L***

***Required difference = (1/6) [(15 + 17.5 + 25 + 20 + 30 + 25) − (20 + 15 + 20 + 25 + 20 + 15)]***

***=> (1/6) [(132.5 − 115)]***

***=> 17.5/6L ≈ 3L***

Question No. 39

If numbers of students who apply for Graduation in 2011 are 100/3% less than students who apply for Graduation in 2012 then, number of students who apply for Graduation in 2011 are what percent of number of students who apply for Post Graduation in 2015.

**Options :**

1. 36%
2. 40%
3. 52%
4. 28%
5. None of these

***Answer : 40%***

*Students who apply for Graduation in 2011,*

*=> (2/3) × 15 = 10 Lakh*

*Required % = (10/25) × 100 = 40%*

Question No. 40

If 45% of students who apply for Graduation in 2015 are girls and ratio of girls who applied for Graduation in 2015 to the girls who applied for post Graduation in 2017 is 4:5 then find the number of boys who applied for Post Graduation in 2017.

**Options :**

1. 4.15 Lakh
2. 3.18 Lakh
3. 2.25 Lakh
4. 3.75 Lakh
5. None of these

***Answer : 3.75 Lakh***

***Girls who applied for Graduation in 2015 = (45/100) × 20 = 9 Lakh***

***Girls who applied for post Graduation in 2017 = (9/4) × 5 = 45/4 = 11.25 Lakh***

***Boys who applied for Post Graduation in 2017 = 15 − 11.25 L = 3.75 Lakh***

**Direction:- In these questions, two equations numbered I and II are given. You have to solve both equations and mark the appropriate option. Give answer:**

Question No. 41

I. 9x2 + 45x + 26 = 0

II. 7y2 – 59y − 36 = 0

**Options :**

1. if x > y
2. if x ≤ y
3. if x < y
4. if x ≥ y
5. if x = y or relationship between x and y can't be established.

***Answer : if x < y***

***I. $9x^2 + 45x + 26 = 0$***

***=> $9x^2 + 39x + 6x + 26 = 0$***

***=> 3x(3x + 13) + 2(3x + 13) = 0***

***=> (3x + 2) (3x + 13) = 0***

***=> x = -2/3, -13/3***

***II. $7y^2 – 59y − 36 = 0$***

***=> $7y^2 – 63y + 4y − 36 = 0$***

***=> 7y(y – 9) + 4(y - 9) = 0***

***=> (7y + 4) (y – 9) = 0***

***=> y = -4/7, 9***

***Hence, x < y.***

Question No. 42

I. 8x – 3y = 85

II. 4x – 5y = 67

**Options :**

1. if x > y
2. if x ≤ y
3. if x < y
4. if x ≥ y
5. if x = y or relationship between x and y can't be established.

***Answer : if x > y***

***Solving both the equation we get,***

***=> x = 8 and***

***=> y = -7***

***Hence, x > y.***

Question No. 43

I. x − √2401 = 0

II. y2 − 2401 = 0

**Options :**

1. if x > y
2. if x ≤ y
3. if x < y
4. if x ≥ y
5. if x = y or relationship between x and y can't be established.

***Answer : if x ≥ y***
***I. x − √2401 = 0***
***=> x − 49 = 0***
***=> x = 49***
***II. $y^2$ − 2401 = 0***
***=> $y^2$ = 2401***
***=> y = ±49***
***Hence, x ≥ y.***

Question No. 44

I. 2x2 + 13x + 21 = 0

II. 3y2 + 34y + 63 = 0

**Options :**

1. if x > y
2. if x ≤ y
3. if x < y
4. if x ≥ y
5. if x = y or relationship between x and y can't be established.

***Answer : if x = y or relationship between x and y can't be established***

***I. $2x^2 + 13x + 21 = 0$***

***=> $2x^2 + 6x + 7x + 21 = 0$***

***=> $2x(x + 3) + 7(x + 3) = 0$***

***=> $(x + 3)(2x + 7) = 0$***

***=> $x = -3, -7/2$***

***II. $3y^2 + 34y + 63 = 0$***

***=> $3y^2 + 27y + 7y + 63 = 0$***

***=> $3y(y + 9) + 7(y + 9) = 0$***

***=> $(y + 9)(3y + 7) = 0$***

***=> $y = -9, -7/3$***

***Hence, relation cannot be established between x and y.***

Question No. 45

I. 12x2 + 22x + 8 = 0

II. 4y2 - y − 3 = 0

**Options :**

1. if x > y
2. if x ≤ y
3. if x < y
4. if x ≥ y
5. if x = y or relationship between x and y can't be established.

***Answer : if x = y or relationship between x and y can't be established***

***I. $12x^2 + 22x + 8 = 0$***

***=> $12x^2 + 16x + 6x + 8 = 0$***

***=> $4x(3x + 4) + 2(3x + 4) = 0$***

***=> $(3x + 4)(4x + 2) = 0$***

***=> $x = -4/3, -1/2$***

***II. $4y^2 - y - 3 = 0$***

***=> $4y^2 - 4y + 3y - 3 = 0$***

***=> $4y(y - 1) + 3(y - 1) = 0$***

***=> $(y - 1)(4y + 3) = 0$***

***=> $y = 1, y = -3/4$***

***Hence, relation cannot be established between x and y.***

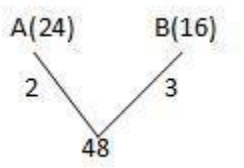
Question No. 46

A can do a piece of work in 24 days. B can do the same work in 16 days and C can do the same work in 5/4th time required by both A and B together. A and B work together for 6 days, then C complete the remaining work. How many day did C work?

**Options :**

1. 7/2 days
2. 8/3 days
3. 9/2 days
4. 7/4 days
5. None of these

***Answer : 9/2 days***




***=> (A + B) together = 48/5 day***

***=> C alone = (48/5) × (5/4) days = 12 days***

***Remaining work = 48 – 5 × 6 = 18***

***C's work = (18 × 12)/48 = 9/2 days***

Question No. 47

The distance between two stations A and B is 900 km. A train starts from A and moves towards B at an average speed of 30 km/hr. Another train starts from B, 20 minutes earlier than the train at A, and moves towards A at an average speed of 40 km/hr. How far from A will the two trains meet ?

**Options :**

1. 390 km
2. 365 km
3. 372 km
4. 380 km
5. None of these

***Answer : 380 km***
***Distance covered by 2nd train in 20 minutes = (20/60) × 40 = 40/3 km***

***Remaining distance = 900 – (40/3) = 2660/3km***

***Time after which they will meet = [(2660/3)/70] hours***

***Distance covered from A in this time = (2660/210) × 30 = 380 km***

Question No. 48

A garment company declared 17% discount for wholesale buyers. Ms. Diksha, a wholeseller bought garments from the company for Rs.1660 after getting discount. He fixed up the selling price of garments in such a way that he earned a profit of 7% on original company price. What is the selling price?

**Options :**

1. Rs.2240
2. Rs.2360
3. Rs.2140
4. Rs.2050
5. None of these

***Answer : Rs.2140***

*Original company price = 1660 × (100/83) = 2000 Rs.*

*SP = 2000 × (107/100) = Rs.2140*

Question No. 49

A student gets an aggregate of 60% marks in five subjects in the ratio 10 : 9 : 8 : 7 : 6. If the passing marks are 45% of the maximum marks and each subject has the same maximum marks, in how many subjects did he pass the examination?

**Options :**

1. 1
2. 2
3. 3
4. 4
5. 5

*Answer : 5*

*Let 60% marks = 40x*

*So, 100% = (40x/60) × 100 = 200x/3*

*Maximum marks for each subject = 200x/(3 × 5) = 40x/3*

*Pass marks for each subject = (45/100) × (40x/3) = 6x*

*So, he passed in all the 5 subjects.*

Question No. 50

X, Y, Z enter into partnership with capital contribution Rs. 50000, 20000 and 30000 respectively X is working partner of get 20% of profit for managing the business. The remaining profit is distributed in the respect of capital. If At the end of a year X gets Rs. 300 more than Y and Z, then find total profit is?

**Options :**

1. Rs.2100
2. Rs.1500
3. Rs.1000
4. Rs.1200
5. Rs.1700

***Answer : Rs.1500***

***Ratio of investment of X, Y and Z = 50 : 25 : 30 = 10 : 4 : 6***

***Let total profit be 100%.***

***After 20% given to X,***

***Value of 1 unit = 80%/20 = 4%***

***=> (20 + 10 × 4 – (6+4) × 4)% = 300***

***∴ Total profit = Rs. 1500***

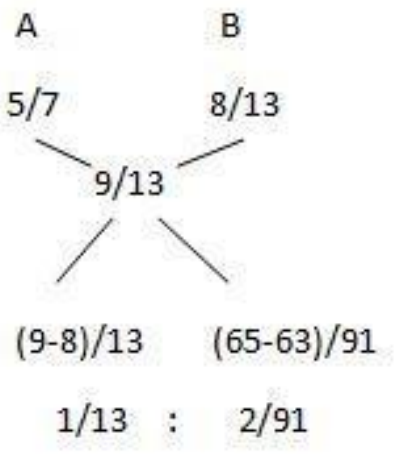
Question No. 51

Acid and water are mixed in a vessel A in the ratio of 5:2 and in the vessel B in the ratio 8:5. In what proportion should quantities be taken out from the two vessels so as to form a mixture in which the acid and water will be in the ratio of 9:4?

**Options :**

1. 8:3
2. 11:5
3. 9:4
4. 7:2
5. None of these

***Answer : 7:2***




***Ratio of quantity = 7:2***

Question No. 52

The area of the circumcircle of an equilateral triangle is 3π cm². The perimeter of the triangle is:

**Options :**

1. 5 cm
2. 9 cm
3. 8 cm
4. 6 cm
5. None of these

***Answer : 9 cm***

***Let side of an equilateral triangle = a cm***

***∴ circumcircle radius = a/√3 cm***

***∴ area of circumcircle = π(a/ √3)²***

***=> πa²/3 = 3π ⇒ a² = 9***

***⇒ ∴ a = 3 cm***

***∴ Perimeter = 3 × a = 9 cm***

Question No. 53

A boat takes half time in moving a certain distance downstream than upstream. The ratio of the speed of the boat in still water and that of the current is :

**Options :**

1. 3:1
2. 5:2
3. 4:3
4. 2:1
5. None of these

*Answer : 3:1*

*Downstream speed = x + y*

*Upstream speed = x – y*

*Speed = Distance/Time*

*=> x + y = D/T ------ (i)*

*=> x - y = D/2T ------ (ii)*

*On solving (i) and (ii) we will get,*

*=> x = 3D/4T*

*=> y = D/4T*

*=> x/y = (3D/4T) × (4T/D) = 3: 1*

Question No. 54

Present age of Sunita is 3 times the present age of Nita. 4 years hence twice the age of Sunita will be equal to thrice the age of Nita. Find the present age of Sunita.

**Options :**

1. 8 years

2. 4 years

3. 6 years

4. 2 years

5. None of these

*Answer : 4 years*

*Let present age of Nita = x*

*So present age of Sunita = 3x*

*4 years hence,*

*=> 2(3x + 4) = 3(x + 4)*

*=> 6x + 8 = 3x + 12*

*=> 3x = 4*

*=> x = 4/3*

*Present age of Sunita = (4/3) × 3 = 4 years*

Question No. 55

What will be the probability of choosing one red and one green ball from a basket containing 4 red and 5 green balls if two balls are drawn randomly?

**Options :**

1. 2/9

2. 4/9

3. 5/9

4. 7/9

5. None of these

*Answer : 5/9*

*Required probability = (4C1 × 5C1)/9C2 = (4 × 5)/(9 × 4) => 5/9*

**Direction:- Study the table carefully to answer the questions given below:**

Total number of items = 32500

The items are sold in various store and within each store percentage of refrigerators and AC is given.

| Stores | Percentage of items | Percentage of Refrigerators | Percentage of AC |
|---|---|---|---|
| A | 12 | 55 | 45 |
| B | 15 | 60 | 40 |
| C | 8 | 30 | 70 |
| D | 28 | 75 | 25 |
| E | 17 | 20 | 80 |
| F | 20 | 64 | 36 |

Question No. 56

What is the ratio of total number of refrigerators in Store B and D together to the total number of AC in the same Store together?

**Options :**

1. 28:11

2. 35:16

3. 30:13

4. 21:11

5. None of these

***Answer : 30 : 13***

***Total number of Refrigerators in B = (15/100) × 32500 × (60/100) = 2925***

***Total number of Refrigerators in D = (28/100) × 32500 × (75/100) = 6825***

***Total number of AC in B = (15/100) × 32500 × (40/100) = 1950***

***Total number of AC in D = (28/100) × 32500 × (25/100) = 2275***

***Required Ratio = (2925 + 6825): (1950 + 2275)***

***=> 9750 : 4225 = 30 : 13***

Question No. 57

The total number of Items in the Store A is what per cent of the total number of Items in Store F?

**Options :**

1. 60%
2. 45%
3. 56%
4. 65%
5. None of these

***Answer : 60%***

***Required % = [(12 × 32500)/(20 × 32500)] × 100 = 60%***

Question No. 58

What is the total number of Refrigerators from Store A, C and E together?

**Options :**

1. 4250
2. 4010
3. 4120

4. 4030

5. None of these

***Answer : 4030***

***Total number of Refrigerators from Store A, C and E together = [32500/(100×100)][12 × 55 + 8 × 30 + 17 × 20] = 4030***

Question No. 59

The AC in the Store B is approximately what percent of the Refrigerators in the Store F?

**Options :**

1. 47%
2. 34%
3. 75%
4. 54%
5. None of these

***Answer : 47%***

***Required % = [(15 × 40)/(20 × 64)] × 100 = 46.88 = 47% (approx)***

Question No. 60

What is the ratio of the number of Refrigerators in the Store C to the number of Refrigerators in the Store D?

**Options :**

1. 5:21
2. 4:35
3. 3:20
4. 6:23
5. None of these

***Answer : 4:35***

*Required ratio = (8 × 30)/(28 × 75) = 4:35*

**Direction:- Study the following information carefully and answer the given questions:**

There are 1000 students in a college. Out of 1000 students some appeared in exams 'X', 'Y' and 'Z' while some not. Number of student not appeared in any exam is equal to number of students appeared in exam 'Z' only. Number of students appeared in exam 'Y' is 360. Ratio of number of students appeared in exam 'X' and 'Y' only to number of students appeared in exam 'Y' and 'Z' only is 2:3. Number of student appeared in exam 'X' and 'Z' both is half of number of students appeared in only exam 'Z'. Number of students appeared in exam 'X' only is 50% more than number of students appeared in 'Y' only. Number of students appeared in all the three exam is 4% of the total number of students in the college. Number of students appeared in 'Y' exam only is same as number of students appeared in 'Y' and 'Z' only.

*Solution:-Total students = 1000*

*Let, students appear in exam Z only = a*

*Total students appeared in exam Y = 360*

*Ratio of number of students appeared in exam X and Y only to students appeared in exam Y and Z only = 2:3*

*Students appeared in exam X and Z both = a/2*

*Number of students appeared in all three exams = (4/100) × 1000 = 40*

*Number of students appeared in Y exam only = No. of students appeared in Y and Z only = 3x*

*Number of students appeared in exam X and Y only = (2/3) × 3x = 2x*

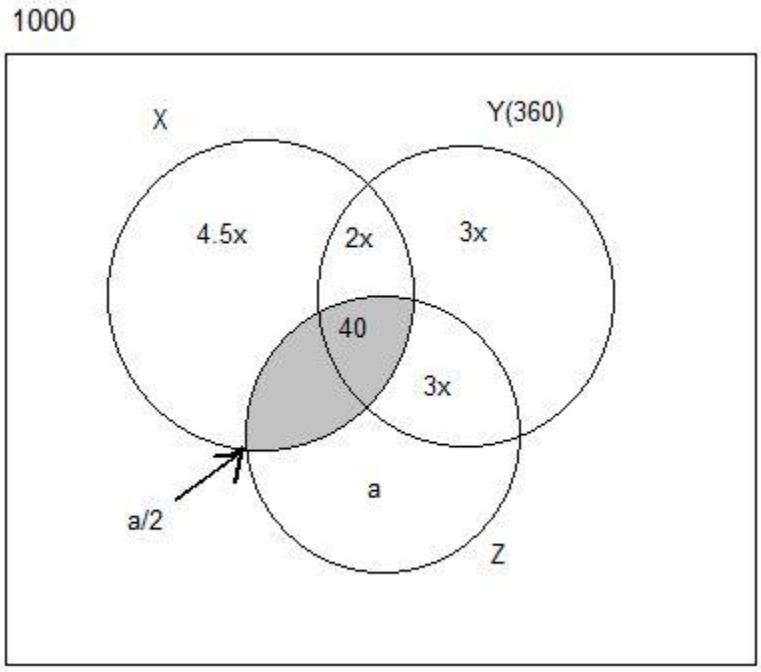
*Now, 2x + 3x + 3x + 40 = 360*

*⇒ x = 40*

*And, 12.5x + a + a/2 + a = 1000*

*=> 5a/2 = 500*

*⇒ a = 200*




Question No. 61

How many students appeared in at least two exams?

**Options :**

1. 540

2. 260

3. 610

4. 420

5. 340

*Answer : 340*

*Students appeared in at least two exams = 80 + 120 + 100 + 40 = 340*

Question No. 62

How many students appeared in two exams only?

**Options :**

1. 540

2. 260

3. 610

4. 420

5. 340

***Answer : 260***

***Students appeared in two exams only = 80 + 60 + 120 = 260***

Question No. 63

How many students appeared in at most two exams?

**Options :**

1. 740

2. 960

3. 810

4. 620

5. 540

***Answer : 960***

***Students appeared in atmost two exams = 180 + 120 + 200 + 60 + 80 + 120 + 200 = 960***

Question No. 64

How many students not appeared in exam Y?

**Options :**

1. 740

2. 960

3. 810

4. 640

5. 520

***Answer : 640***

***Student not appeared in exam Y = 1000 – 360 = 640***

Question No. 65

How many students appeared in exam X or in exam Z?

**Options :**

1. 640

2. 660

3. 610

4. 680

5. 620

***Answer : 680***

***Students appeared in exam X or in exam Z = 180 + 60 + 40 + 80 + 200 + 120 = 680***

**Direction:- Study the following information carefully and answer the below questions.**

Eight persons- A, B, C, D, E, F, G and H are attending meeting conference on different month- March, April, August and November on different dates either 8 or 19 of the month of the year 2020. All the information is not necessarily in the same order.

G has attended on April 19. Only one person is attending the meeting between E and F. H has attended two persons before D. E has attended the meeting on even numbered date after G. The number of persons attending between B and C is same as between F and D. A has attended the meeting on either November or April. D has attended on an odd numbered date. C does not attended on even numbered date.

***Solution*:-**

***H has attended two persons before D. It means H has attended on 6th August and D has attended on 19th November.***

***G has attended on April 19. E has attended the meeting on even numbered date after G. So, E has attended either on 6th August or 6th November.***

***Only one person is attending the meeting between E and F. So, F has attended either on 6th April or 6th August or 6th November.***

| | Case 1. | Case 2. | Case 2.a. |
|---|---|---|---|
| **Months** | **Person** | **Person** | **Person** |
| 6th March (31) | | | |
| 19th March (31) | | | |
| 6th April (30) | | | F |
| 19th April (30) | G | G | G |
| 6th August (31) | F | E | E |
| 19th August (31) | H | H | H |
| 6th November (30) | E | F | |
| 19th November (30) | D | D | D |

*The number of persons attending between B and C is same as between F and D. A has attended the meeting on either November or April. C does not attended on even numbered date.*

*Case 1 will get discarded as there is a gap of two persons between F and D but there is no place for B and C. In case 2, C will be attending on 19th March as it does not attended on even numbered date. A has attended on 6th April as has attended the meeting on either November or April. So, B has attended on 6th March.Case 3 will get discarded as there is a gap of four persons between F and D but there is no place for B and C.*

| | Case 1. | Case 2. | Case 2.a. |
|---|---|---|---|
| **Months** | **Person** | **Person** | **Person** |
| 6th March (31) | | B | |
| 19th March (31) | | C | |
| 6th April (30) | | A | F |
| 19th April (30) | G | G | G |
| 6th August (31) | F | E | E |
| 19th August (31) | H | H | H |
| 6th November (30) | E | F | |
| 19th November (30) | D | D | D |

***Final arrangement as shown below:***

| Months | Person |
|---|---|
| 6th March (31) | B |
| 19th March (31) | C |
| 6th April (30) | A |
| 19th April (30) | G |
| 6th August (31) | E |
| 19th August (31) | H |
| 6th November (30) | F |
| 19th November (30) | D |

Question No. 66

Which of the following combination is true?

**Options :**

1. March-E

2. August-H

3. April-F

4. November-B

5. March-D

***Answer : August-H***

Question No. 67

Four of the following five are alike in a certain way and form a group. Which of the following does not belong to the group?

**Options :**

1. B

2. The one who attended immediately before G

3. The one who attended immediately after E

4. F

5. A

***Answer : The one who attended immediately after E***

Question No. 68

Who among the following person has attended on November 19th?

**Options :**

1. The one who attended immediately after F
2. B
3. The one who attended two persons after G
4. C
5. A

***Answer : The one who attended immediately after F***

Question No. 69

On which of the following month and date C attended his meeting?

**Options :**

1. March 8
2. November 8
3. August 19
4. March 19
5. None of the above

***Answer : March 19***

Question No. 70

How many persons are attending the meeting between B and E?

**Options :**

1. Four
2. One
3. Three
4. Two
5. None

***Answer : Three***

**Direction:- Study the following statements and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.**

Question No. 71

Statement

Only a few Pencils are Slates

Some Slates are Tiles

All Tiles are Paints

Conclusion

I. Some Slates are Paints

II. Some Tiles can be Pencils

**Options :**

1. Only I follows

2. Either I or II follows

3. Only II follows

4. Both I and II follow

5. Neither I nor II follows

***Answer : Both I and II follow***

***Some Slates are Tiles (I) + All Tiles are Paints (A) → Some Slates are Paints (I). Hence conclusion I follows.***

***Some Pencils are Slates (I) + Some Slates are Tiles (I) → Probable conclusion → Some Tiles may be Pencils (I). Hence conclusion II follows.***

Question No. 72

Statement

Only a few Tickets are Movies

All Movies are Seats

No Seat is a Chair

Conclusion

I. All Tickets can never be Chairs

II. Some Movies can be Chairs

**Options :**

1. Only I follows

2. Either I or II follows

3. Only II follows

4. Both I and II follow

5. Neither I nor II follows

***Answer : Only I follows***

***Some Tickets are Movies (I) + All Movies are Seats (A) → Some Tickets are Seats (I) + No Seat is a Chair (E) → Some Tickets are not Chair (O) → Probable conclusion → All Tickets can never be Chairs (O). Hence conclusion I follows.***

***All Movies are Seats (A) + No Seat is a Chair (E) → No Movie is a Chair (E) → Probable conclusion → No conclusion. Hence conclusion II does not follow.***

Question No. 73

Statement

Only a few Ants are Rats

No Rat is a Lizard

Some Lizards are Bees

Conclusion

I. All Ants can never be Lizards

II. All Rats can be Bees

**Options :**

1. Only I follows

2. Either I or II follows

3. Only II follows

4. Both I and II follow

5. Neither I nor II follows

***Answer : Both I and II follow***

***Some Ants are Rats (I) + No Rat is a Lizard (E) → Some Ants are not Lizard (I) → Probable conclusion → All Ants can never be Lizards (O). Hence conclusion I follows.***

***No Rat is a Lizard (E) + Some Lizards are Bees (I) → Some Bees are not Rats (O*) → Probable conclusion → All Rats can be Bees (O). Hence conclusion II follows.***

Question No. 74

Statement

Only a few Packets are Wrappers

All Packets are Containers

No Container is a Bucket

Conclusion

I. Some Containers can be wrappers

II. No Packet is a Bucket

**Options :**

1. Only I follows

2. Either I or II follows

3. Only II follows

4. Both I and II follow

5. Neither I nor II follows

***Answer : Only II follows***

***All Wrappers are Packets (I) + All Packets are Containers (I) → All Wrappers are Containers (A) → Conversion→ Some Containers are wrappers (I). Hence conclusion I does not follow.***

***All Packets are Containers (A) + No Container is a Bucket (E) → No Packet is a Bucket (E). Hence conclusion II follows.***

Question No. 75

Statements:

Some numbers are polygons

Only a few polygon is formula

No formula is a method

Conclusions:

I. Some methods are polygons

II. No polygon is a method

**Options :**

1. Only I follows

2. Only II follows

3. Either I or II follows

4. Neither I nor II follows

5. Both I and II follow

***Answer : Either I or II follows***

***Some polygons are formulas (I) + No formula is a method (E) → Some polygons are not method (O). Hence neither conclusion I nor II follows but it will make a complementary pair. Hence either conclusion I or II follows.***

Question No. 76

In a certain language “QUANTITY” stands for “TSYQWGWB” AND “ADULT” Stands for “YGSOW” then what will be the code for “BALANCED”?

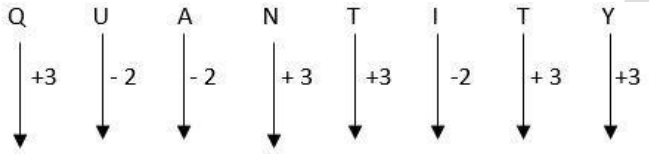
**Options :**

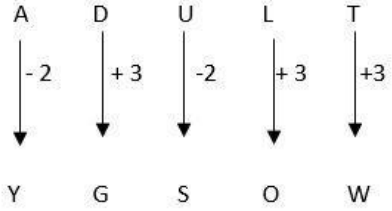
1. EFYOYQCG
2. YQEYOFCG
3. EYFCGOYQ
4. EYOYQFCG
5. None of these

***Answer : EYOYQFCG***

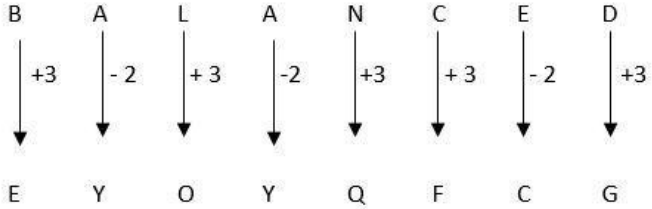
***Vowel = -2***

***Consonant = + 3***




Similarly,



Question No. 77

If it is possible to make to make only one meaningful word with the first, second, fifth and seventh letters of the word “STRAWBERRY”, which of the following will be third letter of the word? If no such word can be made, give 'X' as the answer and if more than one such words can be made give 'Z' as the answer.

**Options :**

1. S
2. E
3. T
4. X
5. Z

***Answer : Z***

***WEST, STEW, WETS***

**Direction:- Study the following information carefully and answer the questions given below:**

There are 8 members P, Q, R, S, T, U, V, and W in a family which consists of only two married couples. There is no single parent in the family. U is the married daughter of V, who has two children. V is the sister-in-law of T. Q is the only child of R. S is the sister-in-law of the grandfather of Q. P is younger than W, who doesn’t have a sister.

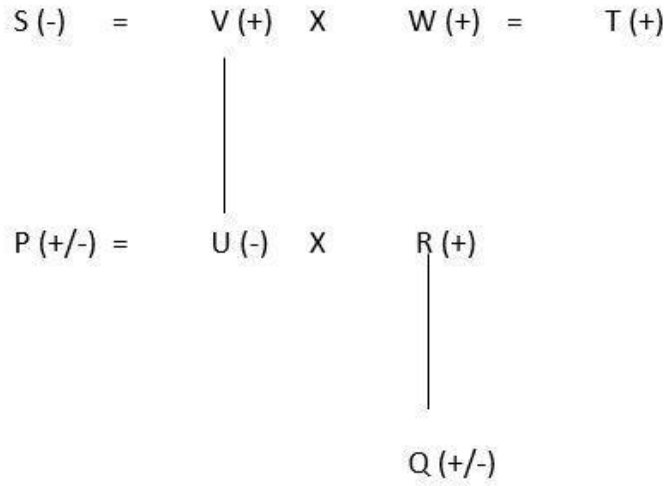
Question No. 78

How is Q related to the father of P?

**Options :**

1. Granddaughter
2. Daughter
3. Son
4. Nephew
5. Can’t be determined

***Answer : Can’t be determined***




Question No. 79

If R doesn't have a brother-in-law, how is P related to sister in law of T?

**Options :**

1. Sister

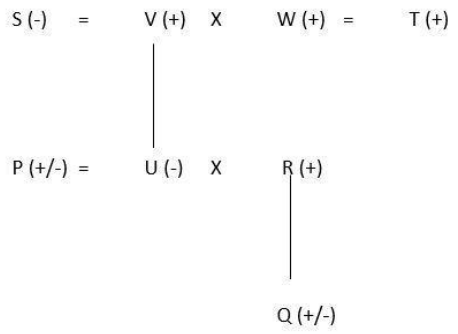
2. Daughter

3. Mother

4. Sister in law

5. Can't be determined

***Answer : Daughter***




Question No. 80

How many male members are there in the family?

**Options :**

1. Two

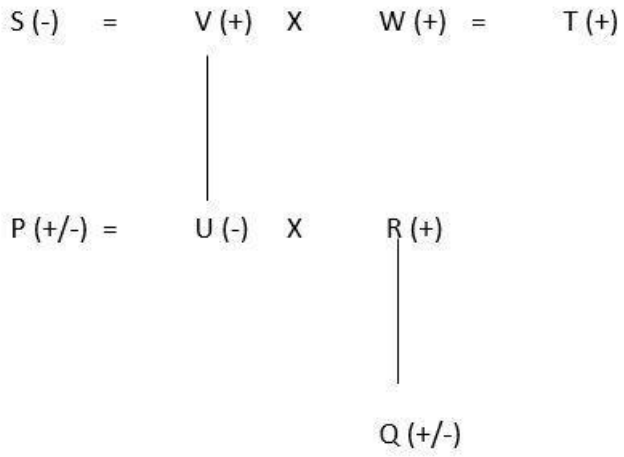
2. Three

3. Four

4. Can't be determined

5. None of these

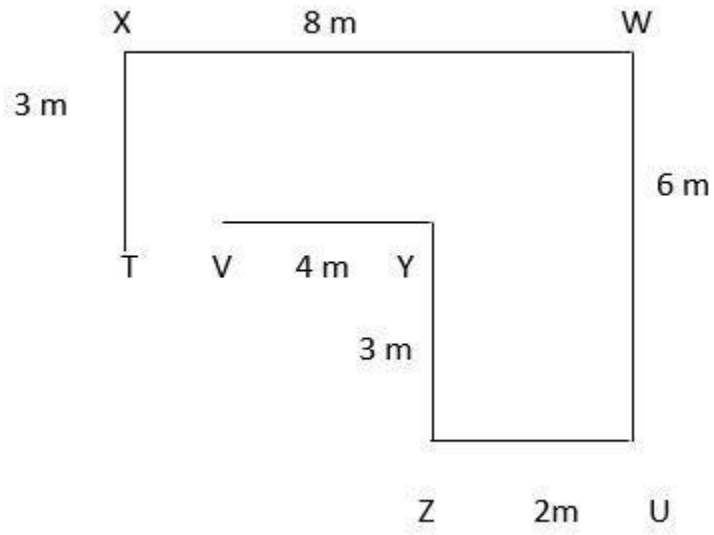
***Answer : Can't be determined***




**Direction:- Study the following information carefully and answer the below questions:**

A person started waking from his house. Initially, he started at point T and runs towards north for 3 m to reach point X from where he turns to his right and runs for 8 m. Then he takes a right turn again and runs for 6m, after reaching point W. He then takes a right turn from point U to reach point Z which is 2 m apart. Now from point Z, he runs towards the direction in which he started the running initially and runs for 1 m more than the distance between points Z and U. Then he turns to his left at point Y and runs for 4 m to reach point V and he stops finally.

***Solution:-***




Question No. 81

If a swing is 7 m to the east of the final point, then in which of the direction is point W with respect to the swing?

**Options :**

1. North

2. South

3. Southwest

4. Northeast

5. None of these

***Answer : Northeast***

Question No. 82

What is the shortest distance between points X and U?

**Options :**

1. 10m

2. 8 m

3. 12 m

4. 5 m

5. 15 m

***Answer : 10m***

***Shortest distance between points X and U = √ 8² + 6² = √ 64 + 36 = √ 100 = 10 m.***

Question No. 83

From the final point, if the person runs back in the same path for half of the total distance ran by him, then how far is he from the initial point?

**Options :**

1. 16 m

2. 14 m

3. 13 m

4. 12 m

5. Cannot be determined

***Answer : 13 m***

***Total distance = 3 + 8 + 6 + 2 + 3 + 4 = 26/2 = 13 m.***

Question No. 84

How many such pairs of digits are there in the number “1469835725” which has as many digits between there in the number as in the numerical series (In both directions)?

**Options :**

1. 2

2. 4

3. 3

4. 1

5. None

***Answer : 4***

***Forward – 68***

***Backward – 57, 36, 89***

Question No. 85

The Position of how many digits in the number “175389246”will remain unchanged when the digits are arranged in descending order from left to right?

**Options :**

1. Four
2. Three
3. Two
4. One
5. None

***Answer : None***

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *1* | *7* | *5* | *3* | *8* | *9* | *2* | *4* | *6* |
| *9* | *8* | *7* | *6* | *5* | *4* | *3* | *2* | *1* |

**Direction:- Study the following information carefully and answer the questions given below it.**

Twelve persons are sitting in two parallel rows containing six persons in each row in such a way that each person from 1st row facing exactly one person of 2nd row. In the 1st row U, V, W, X, Y and Z are sitting and all of them are facing south but not necessarily in the same order. In the 2nd row G, H, I, J, K and L are sitting and all of them are facing north but not necessarily in the same order.

The number of persons sitting to the right of H is same as the number of persons sitting to the right of Z. Y sits third to the left of Z. G is facing the one who sits second to the right of X. J sits fourth to the right of G. Only one person sits between L and I. H is an immediate neighbor of the one who is facing W. Two persons are sitting between V and the one who is facing K. U sits second to the left of the one who is facing L.

***Solution:-***

*(I) The number of persons sitting to the right of H is same as the number of persons sitting to the right of Z.*

*(II) Y sits third to the left of Z.*

*From these statements we will have three cases:*

***Case 1.***

*If Z sits at place no. 1, the Y will sit at place no. 4.*

*H will sit at place no. 12 as The number of persons sitting to the right of H is same as the number of persons sitting to the right of Z.*

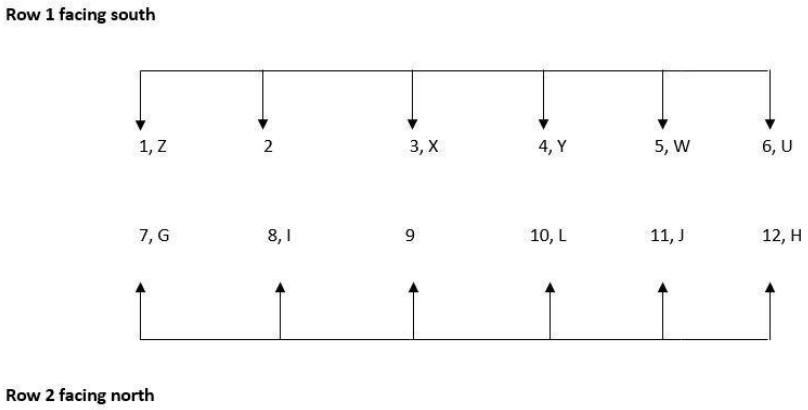
*G is facing the one who sits second to the right of X. J sits fourth to the right of G. So, X will sit at place no. 3. G and J will sit at place no. 7 and 11 respectively.*

*H is an immediate neighbor of the one who is facing W. So, W sits at place no. 5.*

*U sits second to the left of the one who is facing L. So, L and U will sit at place no. 10 and 6 respectively.*

*Only one person sits between L and I. I sits at place no. 8.*

*This case will get discarded as if we place K at place no. 9, then V will sit at place no. 2 but it is given in the question that two persons are sitting between V and the one who is facing K.*




***Case 2.***

*If Z sits at place no. 2, the Y will sit at place no. 5.*

*H will sit at place no. 11 as The number of persons sitting to the right of H is same as the number of persons sitting to the right of Z.*

*G is facing the one who sits second to the right of X. J sits fourth to the right of G. So, X will sit at place no. 4. G and J will sit at place no. 8 and 12 respectively.*

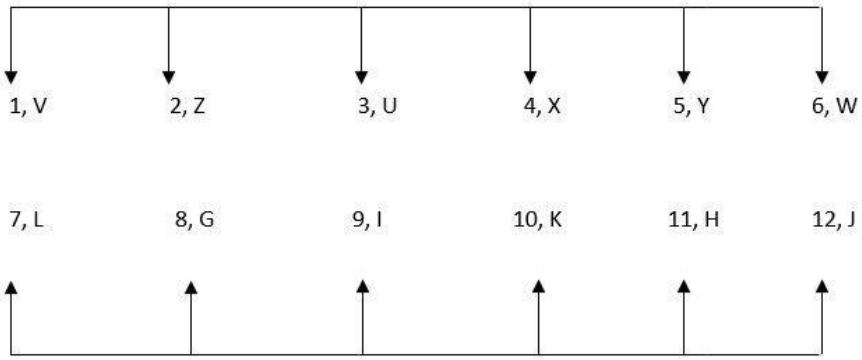
*H is an immediate neighbor of the one who is facing W. So, W sits at place no. 6.*

*U sits second to the left of the one who is facing L. So, L and U will sit at place no. 7 and 3 respectively.*

*Only one person sits between L and I. I sits at place no. 9.*

*Two persons are sitting between V and the one who is facing K. So, K and V will sit at place no. 10 and 1 respectively.*

**Row 1 facing south**




**Row 2 facing north**

***Case 3.***

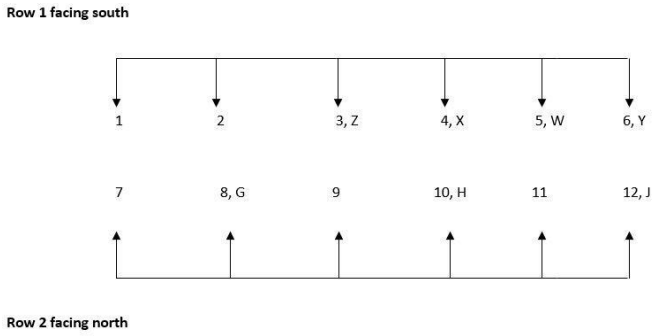
*If Z sits at place no. 3, the Y will sit at place no. 6.*

*H will sit at place no. 10 as The number of persons sitting to the right of H is same as the number of persons sitting to the right of Z.*

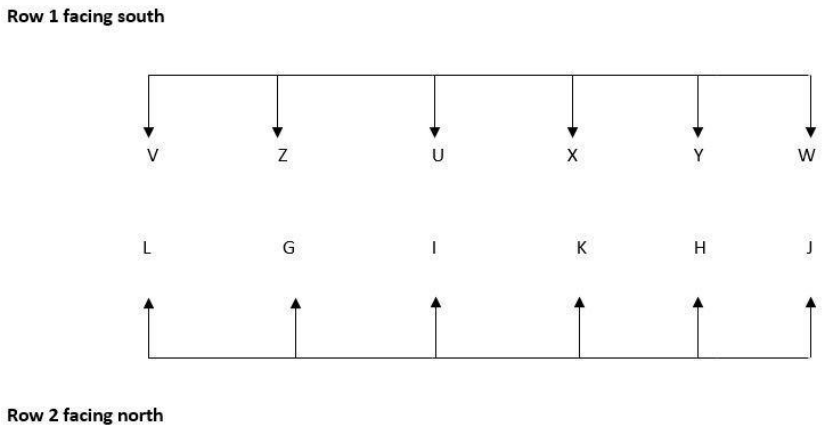
*G is facing the one who sits second to the right of X. J sits fourth to the right of G. So, X will sit at place no. 4. G and J will sit at place no. 8 and 12 respectively.*

*H is an immediate neighbor of the one who is facing W. So, W sits at place no. 5.*

*U sits second to the left of the one who is facing L. This case will get discarded as there is no place left for U.*




*Final arrangement as shown below:*




3. No One
4. H
5. None of these

***Answer : L***

Question No. 86

Who among the following sits third to the left of K?

**Options :**

1. L
2. G

Question No. 87

How many persons are sitting between U and V?

**Options :**

1. None
2. 1
3. 2
4. 3

5. None of these

***Answer : 1***

Question No. 88

Who among the following sits to the immediate left of the one who is facing I?

**Options :**

1. V
2. Z
3. W
4. X
5. None of these

***Answer : X***

Question No. 89

Who among the following sits opposite of H?

**Options :**

1. Y
2. X
3. V
4. Z
5. None of these

***Answer : Y***

Question No. 90

Four of the following five are alike in a certain way to form a group. Find the one who does not belongs to the group?

**Options :**

1. L
2. V
3. Z
4. W
5. J

***Answer : Z***

**Direction:- Answer the questions on the basis of the information given below.**

Eight persons viz. M, N, O, P, Q, R, S and T are staying in two different flats viz. Flat 1 and Flat 2 of a four storey building, but not necessarily in the same order. Flat 1 is to the west of Flat 2. The lowermost floor is numbered as 1 and the floor above is numbered as 2 and so on.

S stays in Flat 1 of an even numbered floor and immediately above Q in the different flat. Only one floor is there between Q and R where both stay in the same flat. M stays on the same floor with Q and immediately below O. N stays on the same flat with P but not on the same floor with T who doesn't stay below O.

***Solution:-***

*S stays in Flat 1 of an even numbered floor and immediately above Q in the different flat. We will have two cases:*

*S stays in flat 1 of either floor no. 4 or 2 and Q stays in flat 2 of either floor no. 3 or 1.*

*Only one floor is there between Q and R where both stay in the same flat. So, R stays at flat 2 of either floor no. 1 or 3.*

*M stays on the same floor with Q and immediately below O. So, M stays at flat 1 of either floor no. 3 or 1 and O stays at flat 2 of either floor no. 4 or 2.*

*N stays on the same flat with P but not on the same floor with T who doesn't stay below O. Case 1 will get discarded as T doesn't stay below O.*

*In case 2. T stays at flat 2 of floor no. 4 and N and P will stay at flat 1 of floor no. 3 and 4 respectively.*

| | **Case 1.** | | **Case 2.** | |
|---|---|---|---|---|
| **Floors** | **Flat 1** | **Flat 2** | **Flat 1** | **Flat 2** |
| 4 | S | O | P | T |
| 3 | M | Q | N | R |
| 2 | | | S | O |
| 1 | | R | M | Q |

*Final arrangement as shown below:*

| Floors | Flat 1 | Flat 2 |
|---|---|---|
| 4 | P | T |
| 3 | N | R |
| 2 | S | O |
| 1 | M | Q |

Question No. 91

Who among the following person stays on the topmost floor?

**Options :**

1. N
2. R
3. T
4. M
5. None of these

***Answer : T***

Question No. 92

How many floors are there between P and O?

**Options :**

1. One
2. Two
3. Three
4. More than three
5. None

***Answer : One***

Question No. 93

Four of the following five are alike in a certain way and hence form a group. Find the one that doesn't belong to that group.

**Options :**

1. N
2. M
3. P
4. R
5. S

***Answer : R***

Question No. 94

In which of the following floor and flat does S stays?

**Options :**

1. Flat 2, floor 3
2. Flat 1, floor 2
3. Flat 2, floor 1
4. Flat 2, floor 4
5. None of these

***Answer : Flat 1, floor 2***

Question No. 95

What is the position of P with respect to O?

**Options :**

1. Two floors above
2. Immediately below
3. Three floors above
4. Immediately above
5. None of these

*Answer : Two floors above*

**Direction:- Read the following information carefully and answer the questions given beside:**

Eight persons, J, K, L, M, N, O, P and Q, are sitting around a circular table facing the centre but not necessarily in the same order. Each one of them has different ages -18, 22, 26, 28, 32, 35, 37 and 39.

(i) J sits third to the right of the one whose age is 39. Only two people sit between the one whose age is 39 and Q. The one whose age is 32 and the one whose age is 22 age are immediate neighbours.

(ii) Neither J nor Q's age is 32 or a 22. The one whose age is 32 is not an immediate neighbour of the one whose age is 39. The one whose age is 18 sits second to the left of N. N is not an immediate neighbour of Q.

(iii) The one whose age is 18 age is an immediate neighbour of both the one whose age is 35 and the one whose age is 37. The one whose age is 37 sits third to the right of K. K is not 32 years old.

(iv) L sits on the immediate right of the one whose age is 26. J is not 26 years old. O is not an immediate neighbour of J. P is not an immediate neighbour of the one whose age is 18.

***Solution*:-**

*From (i), If the one whose age is 39 sits at place no. 1, then J will sit at place no. 4. Q sits at place no. 6.*

*From (i) and (ii), As we know that neither J nor Q's age is 32 or a 22 and the one whose age is 32 is not an immediate neighbour of the one whose age is 39. So, one whose age is 32 cannot sit at place no. 2, 4, 8 and 6. The one whose age is 22 cannot sit at place no. 4 and 6.*

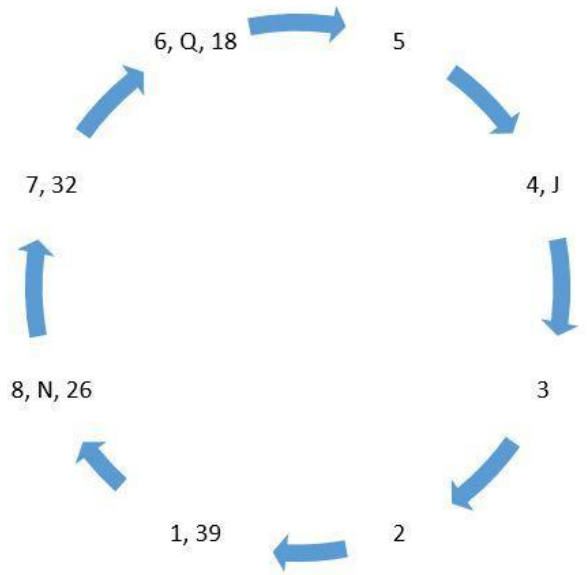
*As the one whose age is 32 and the one whose age is 22 are immediate neighbours. So, there will be two cases:*

***Case 1.***

*The one whose age is 32 and the one whose age is 22 sits at place no. 7 and 8 respectively.*

*From (ii), N cannot sit at place no. 5 and 7. So, N sits at place no. 8 and the one whose age is 18 sits at place no. 6.*

*From (iii), this case will get discarded as the one whose age is 18 is an immediate neighbour of both the one whose age is 35 and the one whose age is 37.*



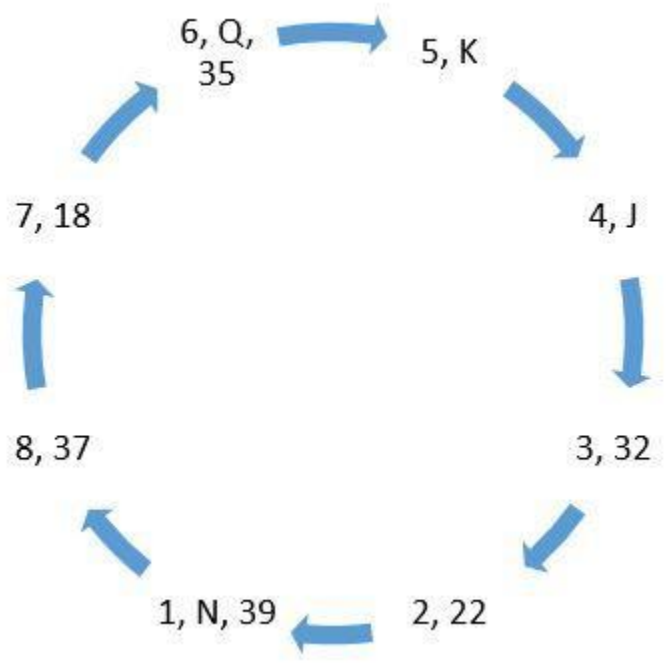

***Case 2.***

*The one whose age is 32 and the one whose age is 22 sits at place no. 3 and 2 respectively.*

*From (ii), N cannot sit at place no. 5 and 7. So, N sits at place no. 1 and the one whose age is 18 sits at place no. 7.*

*From (iii), The one whose age is 18 is an immediate neighbour of both the one whose age is 35 and the one whose age is 37. W is not 37 years old as K is not 32 years old. So, the one whose age is 35 and the one whose age is 37 will sit at place no. 6 and 8 respectively. K will sit at place no. 5.*

*This case will get discarded as there is no place left for L.*




***Case 3.***

*The one whose age is 32 and the one whose age is 22 sits at place no. 3 and 2 respectively.*

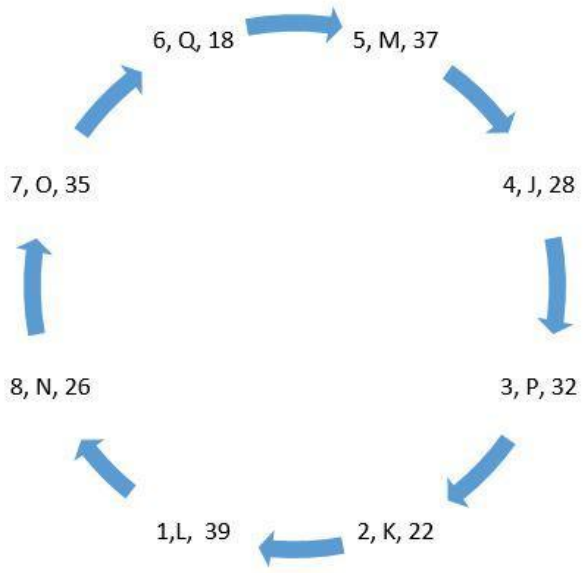
*From (ii), N cannot sit at place no. 5 and 7. So, N sits at place no. 8 and the one whose age is 18 sits at place no. 6.*

*From (iii), The one whose age is 18 is an immediate neighbour of both the one whose age is 35 and the one whose age is 37. The one whose age is 37 cannot sit at place no. 7 as J sits at place no. 4. So, the one whose age is 35 and the one whose age is 37 will sit at place no. 7 and 5 respectively. K will sit at place no. 2.*

*From (iv), as J is not 26 years old. So, N is 26 years old and L sits at place no. 1.*

*As O is not an immediate neighbour of J. P is not an immediate neighbour of the 18. So, O and P will sit at place no. 7 and 3 respectively.*

*Only age number left for J is 28.*




*Final arrangement as shown below:*

Question No. 96

Who amongst the following sits third to the left of N?

**Options :**

1. The one whose age is 18
2. P
3. J
4. The one whose age is 37
5. K

***Answer : The one whose age is 37***

Question No. 97

Four of the following five are alike in a certain way based on the given arrangement and thus form a group. Which is the one that does not belong to that group?

**Options :**

1. O – 26
2. P – 28
3. M – 18
4. J – 37
5. K – 39

***Answer : K – 39***

Question No. 98

Who among the following is 28 years old?

**Options :**

1. J
2. L
3. Q
4. P
5. M

***Answer : J***

Question No. 99

Which of the following is true with respect to the given seating arrangement?

**Options :**

1. The one whose age is 35 is an immediate neighbour of the one whose age is 32.
2. P sits second to the right of M.
3. The one whose age is 35 and the one whose age is 22 are immediate neighbours.
4. The one whose age is 26 sits to the immediate left of the one whose age is 39.
5. The one whose age is 35 sits second to the left of M.

***Answer : The one whose age is 26 sits to the immediate left of the one whose age is 39.***

Question No. 100

What is the age of K?

**Options :**

1. 26

2. 18

3. 22

4. 32

5. 37

***Answer : 22***