## Adda 247

## Bank Foundation Mains Mock 2

Directions (1-5): Study the following information carefully and answer the questions given below.
Nine Persons: Ulric, Penelope, Quinlan, Xavier, Yara, Zara, Ulysses, Phoebe and Quinton work in designations viz. Founder, Lead Engineer, Marketing Director, Financial Manager, Product Manager, Sales Executive, Operations Coordinator, Trainee and UX Designer but not necessarily in the same order. The order of seniority is in decreasing order as given i.e., Founder is the senior most designation and UX Designer is the junior most designation. All of them are from different places.
There is one designation between Phoebe and the one who is from Boston. Quinton is not a junior most employee. Zara is not from Washington. The number of persons senior to Quinton is the same as the number of persons junior to Yara who is from San Francisco. Penelope is three positions senior to the one who is from Houston. Ulric is a Trainee. There are four designations between Zara and the one who is from Los Angeles. As many designations between Zara and Ulric as between the one who is from Denver and Xavier. Quinlan is from New York and four designations Junior to the one who is from Seattle. There are three designations between Ulysses and Quinton who is not senior to Ulysses. There are two designations between Yara and the one who is from Chicago. The one who is from Houston is not just senior to Xavier.

## Q1. Who holds the designation of Founder?

(a) Penelope
(b) The one who is from Boston
(c) Xavier
(d) The one who is from Washington
(e) Phoebe

Q2. Which city is Xavier from?
(a) Boston
(b) Washington
(c) Houston
(d) Los Angeles
(e) None of these

## Q3. Who is the Marketing Director?

(a) Zara
(b) Phoebe
(c) The one who is from Boston
(d) Ulysses
(e) The one who is from Houston

Q4. How many designations are between the one who is from Seattle and Xavier?
(a) More than five
(b) One
(c) Two
(d) Three
(e) Five

Q5. Which of the following combinations of person and their designation is correct?
(a) Penelope - Founder
(b) Ulysses - Sales Executive
(c) Zara - UX Designer
(d) Quinlan - Product Manager
(e) Phoebe - Lead Engineer

Directions (6-9): In each of the questions below, some statements are given followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically doesn't follow from the given statements disregarding commonly known facts.

## Q6. Statements:

Only a few A are B
Few B are C
No C is D
Conclusions:
I. Some A are not B
II. Some C are A is a possibility
III. All A are C
IV. Few B can be D
V. No A is D is a possibility
(a) Only I
(b) Only II
(c) Only III
(d) Only IV
(e) Both II and IV


Q7. Statements:
Only a few Pen is Pencil $100 \%$ Pencil is Tough Only a few Tough is Easy
Conclusions:
I. Some Tough is Pen
II. No Pen can be Easy
III. Some Tough is not Easy
IV. No Pencil can be Easy
V. All Pen is Easy
(a) Only V
(b) Only II
(c) Both I and IV
(d) Only IV
(e) Both II and V

Q8. Statements:
Only a few Ice are Cups
Only a few Board are Cups
Only Board are Item
Conclusions:
I. No Ice is Item
II. Some Cups are Item

III. Some Ice can be Board
IV. All Cups can be Board
(a) Only II
(b) Only I
(c) Only III
(d) Only IV
(e) Both II and III

## Q9. Statements:

Only a few Glue are Fevicol
No Glue is Ice
Only a few House is Ice

## Conclusions:

I. No Glue can be House
II. Some Glue are not Fevicol
III. No Ice is Fevicol
IV. Some House are not Ice
(a) Only I
(b) Both I and III
(c) Only III
(d) Only II
(e) Both II and III

## Directions (10-14): Study the following information carefully and answer the questions given below.

Eight boxes- A, B, C, D, W, X, Y and Z are kept one above another on different shelves but not necessarily in the same order. The lowermost shelf is numbered as one and the topmost shelf is numbered as eight. Each box is of different colour i.e., Blue, Orange, Purple, Black, White, Red, Brown and Green but not necessarily in the same order. Each box will be delivered in different locations i.e., Gurugram, Delhi, Mumbai, Ranchi, Patna, Bhopal, Panji and Mysore but not necessarily in the same order.
The box which will be delivered in Gurugram and the Blue coloured box are kept in odd-numbered shelves. The Purple coloured box is kept three shelves above the Blue coloured box. The box which will be delivered in Mysore is kept just above the Purple coloured box. The Black coloured box will be delivered in Patna. The box which will be delivered in Gurugram is neither kept in the first shelf nor adjacent to the Purple coloured box. The difference between the shelf number of Black coloured box and the box which will be delivered in Mysore is equal to the shelf number of Box Y. Black coloured box is neither kept adjacent to the box which will be delivered in Gurugram nor to the Blue coloured Box. Box Y is not kept in the bottommost shelf. The colour of Box Y is Orange. The average of the shelf number of Green coloured box and Box $A$ is equal to the shelf number of Box D. Box D is neither kept in an evennumbered shelf nor it will be delivered in Patna. The Green coloured box is kept above the box which will be delivered in Gurugram. The box which will be delivered in Mumbai is kept four boxes below the box which will be delivered in Mysore. The colour of Box X is white. The box kept just above the Box X is not of Red colour. Box C which will be delivered to Ranchi. The shelf number of the box which will be delivered to Ranchi is the square of a number. Box B which will be delivered in Panji. Box A will not be delivered in Delhi. Box C and Box W are kept adjacent to each other.

## Q10. What is the colour of the box will be delivered in Panji?

(a) Red
(b) Green
(c) Blue
(d) Orange
(e) None of these

Q11. Which box is placed just below the White coloured box?
(a) Box Y
(b) Black-coloured box
(c) Box C
(d) Brown-coloured box
(e) None of these

Q12. Which among the following box is kept in the third shelf?
(a) Box A
(b) Box W
(c) Box Z
(d) Box which will be delivered in Delhi
(e) None of these

Q13. Which of the following combination is true?
(a) C - Purple
(b) White-Mysore
(c) D - Gurugram
(d) Brown - Bhopal
(e) All are true

Q14. Which among the following box will be delivered in Patna?
(a) Box A
(b) Box D
(c) Box W
(d) Box X
(e) None of these

Directions (15-19): A number arrangement machine when given an input rearranges the numbers following a particular set of rules. An illustration is given below of it.

| Input: $\mathbf{7 3 3 4 2 7}$ | $\mathbf{5 4 7 2 4 9}$ | $\mathbf{3 4 3 8 2 6}$ | $\mathbf{2 5 6 8 3 4}$ | $\mathbf{3 9 4 2 5 7}$ | $\mathbf{6 7 2 2 8 4}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Step I: 233774 | 257449 | 233468 | 235468 | 235749 | 227468 |
| Step II: 774332 | 975442 | 864332 | 865432 | 975432 | 876422 |
| Step III: 168 | 234 | 165 | 192 | 221 | 208 |
| Step IV: 224 | 80 | 143 | 143 | 24 | 99 |
| Step V: 237 | 93 | 156 | 156 | 37 | 112 |
| Step VI: 330 | 312 | 149 |  |  |  |
| Step VI is the last step of the rearrangement. Based on the following logic rearrange the given input: |  |  |  |  |  |

Input: 726383 847692436285736652292345526897

Q15. What is the sum of the digits of the number that is 3rd from the left end in Step III?
(a) 14
(b) 12
(c) 08
(d) 06
(e) 10

Q16. Which number in step I of the input has the $\mathbf{2}^{\text {nd }}$ highest digit sum?
(a) 233768
(b) 235766
(c) 257689
(d) 235468
(e) 274689

Q17. If the numbers in step I are arranged in ascending order from left to right, which number will be 4th from the right end?
(a) 233768
(b) 235766
(c) 223549
(d) 235468
(e) 274689

Q18. What will be the difference between the numbers that are $\mathbf{2}^{\text {nd }}$ from the left end in Step III and Step IV?
(a) 166
(b) 296
(c) 239
(d) 420
(e) 560

Q19. How many numbers are divisible by 2 in step $V$ ?
(a) Two
(b) Three
(c) Five
(d) Four
(e) None

Directions (20-22): Study the following information carefully and answer the questions given below.
There are nine members of different ages in a three-generation family. There are three married couples. The eldest member of the family is Ramesh who is 60 years old. No member of the family is of the same age.
Meera is married to Arjun and they have a daughter who is 12 years old. Priya and Meera are sisters. The ratio of the ages of Priya and her niece is $3: 1$ respectively. Ramesh's son, Vikram is 5 years older than his daughter-in-law Priya. Meera is 25 years younger than Ramesh's wife, Sita. Aarav is the grandson of Ramesh and his mother is 7 years younger than his father, Karthik. The age gap between Vikram and his brother is the same as the age gap between Sita and her husband. Aarav is 3 years younger than his cousin Arpita. The age gap between Aarav and his mother is the same as the age gap between Arjun and her child.

Q20. Which of the following statement(s) is/are correct based on the given information?
(a) Meera is older than Priya.
(b) Vikram is elder than Karthik.
(c) Aarav is son of Vikram.
(d) Sita is the mother of Karthik.
(e) All are correct

Q21. How is Priya related to Sita?
(a) Sister
(b) Cousin
(c) Daughter-in-law
(d) Niece
(e) Mother

## Q22. What is the age gap between Arjun and Karthik?

(a) 10 years
(b) 4 years
(c) 2 years
(d) 5 years
(e) 13 years

## Directions (23-27): Study the following information carefully and answer the questions given below.

Ten persons A, B, C, D, E, F, G, K, I and H sit around a circular table for a buffet. Some of them are facing towards the centre and some of them are facing away from the centre. Each chair is numbered from 1-10. All the information is not necessarily in the same order. Not more than two adjacent persons face in the same direction.
$G$ sits second to the left of the person who sits on chair number 1. Chair number 5 is two chairs away from G. Chair number of $K$ is a square of a number. $K$ sits second to the right of the one who sits on chair number 1 . Chair number 6 is two places away from chair number 1. Difference between the chair number of $A$ and $I$ is equal to the chair number of $K$. Chair number of $A$ is less than 3 . The chair number of $I$ is an odd number. The chair number of $E$ is the average of F and C . Difference between the chair number of E and C is an odd number. Chair number of F is more than the chair number of C whose chair number is less than 8. D sits second to the left of the person who sits on Chair number 9. G and F do not sit adjacent to each other. A and D do not sit adjacent to each other. K and D do not sit adjacent to each other. D doesn't sit opposite to the one who sits on chair number 1 . The difference between the chair number of $B$ and $A$ is three times the difference between of the chair number of $E$ and $I$. $B$ is not adjacent to $K$ and $E$. Person names start with a vowel do not sit adjacent to each other. As many persons sit between I and B as sit between H and E when counted from left of both H and I. A and I face in opposite direction. The person who sits on chair 10 does not face away from the table. H do not face same direction as B. The persons sit adjacent to B face in the opposite direction. The persons sit adjacent to F do not face same direction. The person who sits on chair 7 faces towards the table. $E$ and $K$ face opposite directions to each other. Chair number of $D$ is half the chair number of $K$.

Q23. Who among the following person sits on chair 1?
(a) C
(b) Either A or B
(c) A
(d) B

(e) None of these

Q24. What is the ratio of the number of persons facing towards the table and the number of persons facing away from the table respectively?
(a) $2: 3$
(b) $3: 2$
(c) $1: 1$
(d) $7: 3$
(e) None of these

Q25. How many persons sit between I and $C$ when counted from the left of I?
(a) Two
(b) More than three
(c) Three
(d) One
(e) None of these

Q26. Who among the following person sits fourth to the left of C?
(a) Person who sits on chair number 6
(b) D
(c) Person who sits on chair number 3
(d) B
(e) None of these

Q27. Who among the following person sits on the chair number 7?
(a) F
(b) C
(c) H
(d) E
(e) None of these

## Directions (28-31): Study the following information carefully and answer the questions given below.

Ramesh starts walking towards the east and reached point A after walking 8m. Point B is in north of point A at a distance of 6 m . Ramesh takes a right turn from point $B$ and reached point $C$ after walking 4 m . From point $C$, he starts walking towards the south and reached point D after walking 10 m . From point D , he turns towards the left and after walking 5 m reached point E. Suresh starts walking towards the south and after walking 5 m reached point G. From point $G$, he moves to the east and reached point $H$ after walking 12 m . From point $H$, he turns towards the left and reached point I after walking 6 m . Point K is in the west of Point I at a distance of 8 m . From point K he turns towards the left and reached point E after walking 6 m .

Q28. Point $C$ is in which direction with respect to point $K$ ?
(a) North-east
(b) West
(c) North-West
(d) North
(e) None of these

Q29. What is the shortest distance between Point E and Point I?
(a) 10 m
(b) 7 m
(c) 5 m
(d) 4 m
(e) None of these

Q30. What is the total distance from Point B to Point $\mathbf{H}$ ?
(a) 37 m
(b) 39 m
(c) 38 m
(d) 32 m
(e) None of these

Q31. Point $G$ is in which direction with respect to Ramesh?
(a) South
(b) South-west
(c) South-East
(d) East
(e) None of these

Directions (32-33): BCCI secretary (Jay Shah) was in touch with everyone, so was IPL chairman (Brijesh Patel). The secretary briefed us about the situation. He told us what was happening and what we can do now. He suggested that looking at the situation, it was better to postpone. Everyone agreed with the secretary's view. The positive cases happened in supposedly the safest place. The players felt it was the safest place in India, but nobody can make predictions about this virus.

Q32. Which of the following can be assumed from the given statement?
(I) Remaining IPL Match will be conducted next months in other country.
(II) There is no safest place can be considered from virus.
(III) Some of the players get infected from deadly virus.
(a) Only I and III
(b) Only II
(c) Only I and II
(d) Only II and III
(e) All of three

Q33. Which of the following abrogates the decision taken by BCCI?
(I) In a High court hearing, bench had advised to postpone the IPL till situation comes in control.
(II) Former Indian player and commentator has said that there will be huge loss to all the franchise if IPL will be postponed.
(III) Two franchise has requested BCCI either not to postpone IPL or shift the game in other country to minimize the loss.
(a) Only I and II
(b) Only III
(c) Only II and III
(d) Only I
(e) Only I and III

## Directions (34-38): Study the following information carefully and answer the questions given below.

Twelve persons D, B, C, U, T, Z, Y, W, X G, F and C are sitting in two parallel rows containing six persons each row in such a way that there is an equal distance between adjacent persons. The person sits in row 1 faces South and the person sits in Row 2 faces north. The person sits in row 1 faces the person sits in row 2. Each person goes on a trip in different months i.e., January to December to a location. Each person is staying in different room numbers i.e., 213. All the information is not necessarily in the same order.

One who goes on a trip in July sits second to the right of F. One who goes in July does not sit at an end. Two person sits between the one who goes in July and the one who stays in Room number 7. F and the one who stays in Room number 7 do not sit adjacent. One who sits opposite to the person who stays in Room number 7 sits second to the left of the person who goes in August. The person who goes in March sits at an end. One who goes in March neither sits in Row 2 nor opposite to the person who stays in room number 7. The difference between the room number of the person who goes in March and the one who goes in August is equal to the room number of H. F does not go in March. H stays in the least odd number room and the person who goes in August stays in the second greatest even number room. H sits second to the left of the person who stays in room number 7 but not adjacent to the one who goes in April. F goes in the month having the least number of days. W sits third to the right of the person who goes in January. W doesn't sit in Row 2. One who goes in January does not face the person who stays in room number 7. Room number of the one who goes in March is one more than the room number of $W$ who goes in April. $U$ sits at the end and third to the left of the person who stays in room number 11. The person who goes in May sits opposite to the person who sits second to the right of Z. D sits opposite to T. D goes in the month having an even number of days. T does not sit adjacent to H . B stays in room number 4 but does not sit adjacent to F. Room number of the person who goes in May is one more than the room number of the person who goes in July. X sits second to the right of Y . B and C do not sit adjacent to each other. The person who goes in November stays in room number 2. H and $U$ neither stay in room number 2 nor goes in December. The person who goes in September stays in room number 8. T stays in an odd room number. H and C do not go in June.

Q34. Who among the following person goes in October?
(a) G
(b) The person who stays in room number 11
(c) The person who stays in room number 3
(d) C
(e) None of these

Q35. Who among the following person sits opposite to the person who stays in Room number 3?
(a) T
(b) The person who stays in room number 10
(c) D
(d) The person who goes in November
(e) None of these

Q36. How many persons sit between $T$ and the one who sits opposite to the person who goes in May?
(a) Two
(b) Three
(c) One
(d) Four
(e) None of these

Q37. Which of the following statement(s) is/are true?
(a) No one sits to the right of C
(b) The person who stays in room number 8 sits at an end.
(c) H goes in October
(d) T stays in room number 9
(e) All are true

Q38. Who among the following person sits third to the right of the person who stays in room number 4?
(a) C
(b) D
(c) The person who goes in October
(d) No one
(e) None of these


Directions (39-42): In the following questions, the symbols " $\%$, \#, @, \& and \$" are used with the following meaning as illustrated below:
'A \& B' means ' $A$ is not smaller than $B$ '.
'A @ B' means 'A is neither smaller nor equal to B'.
'A \# B' means 'A is neither greater nor smaller than $B$ '.
'A \% B' means ' A is neither greater nor equal to B '.
' $\mathrm{A} \$ \mathrm{~B}$ ' means ' A is not greater than B '.
Q39.
Statements: A \# O @ R \& K \# S \% P; L \# R @ Z
Conclusions: I. A @ Z II. Z \% P
(a) If conclusion I is true.
(b) If conclusion II is true.
(c) If either conclusion I or II is true.
(d) If neither conclusion I nor II is true.
(e) If both conclusions I and II are true.

Q40.
Statements: E \% K \# S \% X; B @ F \# K \% M
Conclusions: I. X @ F
II. E \% B
(a) If conclusion I is true.
(b) If conclusion II is true.
(c) If either conclusion I or II is true.
(d) If neither conclusion I nor II is true.
(e) If both conclusions I and II are true.

Q41.
Statements: 0 @ X @ Y \% E \# W @ U \& D \# B \$ N
Conclusions: I. O @ W II. N \& X
(a) If conclusion I is true.
(b) If conclusion II is true.
(c) If either conclusion I or II is true.
(d) If neither conclusion I nor II is true.
(e) If both conclusions I and II are true.

Q42.
Statements: A @ B \% C \# D \& E \# F; G \% C \# H
Conclusions: I. A @ H
II. H \& F
(a) If conclusion I is true.
(b) If conclusion II is true.
(c) If either conclusion I or II is true.
(d) If neither conclusion I nor II is true.
(e) If both conclusions I and II are true.

Directions (43-47): Study the following information carefully and answer the questions given below.
A certain number of persons are living on different floors of a building. The ground floor is numbered as 1 , the floor immediately above it is numbered as 2 and so on.
Y lives four floors above P. The person who lives two floors above P is just below M's floor. Number of persons live between $Y$ and $M$ is same as the number of persons live between $P$ and $K$. Two persons live between $K$ and J. U lives two floors below J. There are six floors between M and L . As many floors between K and U as between M and S . W lives just above S . W is fourth from the topmost floor. There are three floors between W and C . Number of floors above $L$ is one less than the number of persons live between C and R . There are six floors between P and G . The number of floors between R and K is one more than the number of floors below G .

Q43. Who lives on the $9^{\text {th }}$ floor?
(a) $P$
(b) K
(c) M
(d) L
(e) R

Q44. How many floors are there in the building?
(a) 22
(b) 30
(c) 20
(d) 19
(e) Can't be determined

Q45. Who lives five floors above $\mathbf{U}$ ?
(a) C
(b) M
(c) K
(d) S
(e) Unknown person

Q46. How many floors are there between C and L ?
(a) Two
(b) Three
(c) Five
(d) Four
(e) More than five

Q47. Who lives on the floor immediately below K ?
(a) P
(b) G
(c) M
(d) U
(e) Unknown person

Directions (48-50): Study the following information and answer the questions accordingly.
In a certain code language,
"Mountain strong river" is coded as "0\#E $1 \#$ H $12 \$ F^{\prime \prime}$
"Champion victory game" is coded as "11\$H 3\#G 2\#D"
"Orange beautiful sunset" is coded as "10\#I 1\#F $10 \$$ F"
"Computer software technology" is coded as "5\#J 14\#H 15\#H"
Q48. What is the code for "Elephant"?
(a) $15 \# \mathrm{H}$
(b) $8 \$ \mathrm{~T}$
(c) $12 \$ \mathrm{G}$

(d) $15 \$ \mathrm{H}$
(e) None of these

Q49. What is the code for "Appetite"?
(a) $8 \# \mathrm{E}$
(b) $4 \$ \mathrm{H}$
(c) $7 \$ \mathrm{~A}$
(d) $4 \# \mathrm{H}$
(e) none of these

Q50. What may be the possible word for the code " 0 \#H"?
(a) secrets
(b) services
(c) summits
(d) success
(e) suggest

## Directions (51-55): Read the passage carefully and answer the questions given below it. Certain words/ phrases are given in bold to help you locate them while answering some of the questions.

On this World Environment Day (June 5), with the novel coronavirus pandemic raging across our vast country, we must reflect on the ways to rebuild our relationship with nature. India's vast and rich biodiversity gives the nation a unique identity, of which we can be proud. The varied ecosystems across land, rivers, and oceans, feed our people, enhance public health security, and shield us from environmental disasters. Our biodiversity also serves as a perpetual source of spiritual enrichment, intimately linked to our physical and mental well-being. And, while the precise economic value of all ecosystem services provided by biodiversity may not be known, estimates suggest our forests alone may yield services worth more than a trillion rupees per year. Imagine how much greater this value will be with grasslands, wetlands, freshwater, and marine added. Sadly, today, we face not only one of the worst public health crises but also worldwide declines in biodiversity.
Climate change and the ongoing pandemic will put additional stresses on our natural ecosystems even though it is becoming clear that repairing our dysfunctional relationship with nature is one of the ways to mitigate climate change and curtail future outbreaks of infectious diseases that can bring unimaginable misery. Thus, preserving biodiversity is directly relevant to the social, economic, and environmental well-being of our people. We must rethink and reimagine the concept of One Health for all living organisms, including the invisible biota in soils that sustain our agricultural systems. Fortunately, our government is considering major investments in biodiversity science to meet societal needs. A Bengalurubased Biodiversity Collaborative is working with the National Biodiversity Authority to hold consultations and prepare
$\qquad$
(A) $\qquad$ _of the Mission that will be steered by a core of the country's leading biodiversity science and conservation organizations, from the public, academic, and civil society sectors.
The Mission will strengthen the science of restoring, conserving, and sustainably utilizing India's natural heritage; embed biodiversity as a key consideration in all developmental programs, particularly in agriculture, ecosystem services, health, bio-economy, and climate change mitigation; establish a citizen and policy-oriented biodiversity information system, and enhance capacity across all sectors for the realization of India's national biodiversity targets and United Nations Sustainable Development Goals (UN SDGs). The ongoing spread of COVID-19 places this Mission among the most significant national initiatives. The pandemic has exposed the dysfunctional relationship between humanity and nature, and we must urgently address the issues it has laid bare: the emergence of infectious diseases; lack of food and nutritional security; rural unemployment; and climate change, with all its stresses on nature, rural landscapes, and public health.
In response to these critical and inter-related issues, the Mission offers a holistic framework, integrated approaches, and widespread societal participation. The Mission's comprehensive efforts will empower India to restore, and even increase, our natural assets by millions of crores of rupees. Mitigation programs will lessen the impacts of climate change and other natural disasters, such as pandemics and floods. We can rejuvenate agricultural production systems and increase rural incomes from biodiversity-based agriculture while also creating millions of green jobs in restoration and nature tourism. Restoration activities across India's degraded lands, which amount to almost a third of our land area, alone could generate several million jobs.

## Q51. Which of the following is another way in which our biodiversity serves as a constant source?

(a) It is a never-ending source of spiritual enlightenment.
(b) It influences both our physical and mental health.
(c) It adversely impacts the economic growth of a country.
(d) Both (a) and (b)
(e) Only (b) and (c)

## Q52. Which of the following is an approach for mitigating climate change and preventing future infectious disease outbreaks?

(a) Planting an adequate number of medicinal plants to prevent diseases.
(b) Framing policies regarding climate change and the ongoing pandemic.
(c) Restoring our distorted relationship with the environment.
(d) Only (a) and (b)
(e) None of these

## Q53. Which of the following statements is/are correct with reference to the information provided in the given passage?

(a) Biodiversity conservation is directly related to our people's social and environmental well-being.
(b) Restoration initiatives alone in India's degraded lands could create million opportunities of employment.
(c) The pandemic has revealed humanity's unbalanced relationship with nature.
(d) Only (a) and (c)
(e) All of these

Q54. Which of the following could fill in the blank (A) as highlighted in the given passage?
(a) road maps
(b) diversity
(c) work plans
(d) All are correct
(e) Only (a) and (c)

Q55. Which of the following is the most similar in meaning to the word REJUVENATE as highlighted in the given passage?
(a) restore
(b) distort
(c) overhaul
(d) Both (a) and (c)
(e) None of these

## Directions (56-62): Read the passage carefully and answer the questions given below it. Certain words/phrases are given in bold to help you locate them while answering some of the questions.

The recent visit to India by United States Special Presidential Envoy for Climate John Kerry gave an opportunity for both sides to discuss cooperation on climate change and the balance between near-term priorities and long-term targets. U.S. President Joe Biden's 'Leaders' Summit on Climate' will also set the stage for major countries to outline their plans. This presents a conundrum for fast-growing developing countries such as India. They need the carbon space to develop but they are also $\qquad$ (A) $\qquad$ the most vulnerable countries to climate change. Is there an equitable way to achieve net-zero greenhouse gas emissions for the planet? Recent debates on whether India should declare a net-zero year or withstand mounting pressure have centered around two alternative strategies. The first is to delegitimize long-term targets. This view proposes focusing on measurable near-term progress and paints the long-term (the year 2050 and beyond) as too far to be meaningful in terms of progress towards a deeply decarbonized world. The alternative approach argues that without long-term targets, the path to decarbonization has little certainty.
This polarised debate needs some nuance. Consider the analogy of a retirement plan. It is a must for everyone. However young, we need to start saving now to meet the goals of a financially secure retirement. It would be foolish to not have a retirement plan on the grounds that it is in the distant future, that medical sciences might advance, or that we could consider retirement properly when we are richer in middle age. To only focus on smaller savings in our youth would ignore the compounding effect that actions today have in the long run. Planning for emissions mitigation is similar: The shortand the long-term cannot be delinked. Ambitious renewable energy targets, improvements in energy efficiency and fast penetration of electric vehicles are among India's critical low-carbon objectives in the next decade. Yet, rapid advances in these do not substitute for the need to set a clear direction of travel with the aim to reduce emissions to net-zero. Avoiding this choice makes India look like a climate laggard when its actions actually speak louder than the words of many developed countries.
However, per capita income cannot be an excuse for inaction in correcting emissions-intensive development pathways. Aggregate emissions also matter. This approach acknowledges the potential to tap into technological advances and cost reductions and reinforces the need to give a long-term net-zero signal. This approach would trigger a rethink about each country's sustainable development priorities and sectoral pathways - and create the conditions for further innovation and investment in climate-friendly infrastructure, technologies, business models, and lifestyle and behavioral changes. As the suite of mitigation technologies becomes more widely available and cheaper, all countries could achieve net-zero much earlier. The debate between prioritizing only near-term actions versus announcing long-term net-zero goals presents a false binary. Both are needed to establish certainty of action, the credibility of promises and create incentives for markets to respond. The real debate should be about climate justice for people and the planet. India would do well to propose alternative formulations that establish equity, differentiate the pace of the desired action, and yet be progressive in its ambitions.

Q56. Which of the following was/were the principal matters of concern for John Kerry during his recent visit to India?
(a) To achieve a balance between short-term goals and long-term objectives.
(b) To talk on how to work together on climate change.
(c) To form plans for a bilateral agreement in the fight against terrorism.
(d) Only (a) and (b)
(e) All of these

Q57. Why does the author advise everyone to begin saving right now?
(a) To reconsider how medical research might progress.
(b) To achieve the objectives of a financially secure retirement.
(c) To have a long-term retirement strategy in place.
(d) Only (b) and (c)
(e) All of these

Q58. Which of the following statements is/are correct with reference to the information provided in the given passage?
(a) India requires carbon space to thrive, but it is one of the most climate-vulnerable countries.
(b) India's essential low-carbon objectives for the coming decade include ambitious renewable energy targets.
(c) All countries will not be able to attain net-zero emissions much sooner as the array of mitigation technology becomes more broadly available and less expensive.
(d) Only (a) and (b)
(e) All of these

Q59. Which of the following inferences could be drawn from the given passage?
(a) Concentrating on measurable near-term progress while creating long-term visions for a world that is fully carbon-free.
(b) All countries could attain net-zero significantly sooner if the suite of mitigation technology becomes more widely available and less expensive.
(c) The true argument should be about climate justice for people and the earth, not about prioritizing merely near-term initiatives vs declaring long-term net-zero objectives.
(d) Only (a) and (b)
(e) All of these

Q60. Which of the following words could fill in the blank (A) as highlighted in the given passage to make the sentence grammatically correct and contextually meaningful?
(a) between
(b) about
(c) among
(d) Both (a) and (c)
(e) None of these

Q61. Which of the following is/are the most similar in meaning to the word CONUNDRUM as highlighted in the given passage?
(a) dilemma
(b) extension
(c) difficulty
(d) Both (a) and (c)
(e) All of these

Q62. Which of the following is/are the most dissimilar in meaning to the word LAGGARD as highlighted in the given passage?
(a) hasty
(b) sluggard
(c) idler
(d) loafer
(e) None of these

## Directions (63-67): In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five options are given. Find out the appropriate word which fits the blank appropriately.

Q63. The Tamil Nadu government will constitute a committee to $\qquad$
$\qquad$ social justice in education, employment, postings, promotions, and appointments, Chief Minister M.K. Stalin said on Thursday, the centenary of the first 'Communal G.O.' $\qquad$ (64) $\qquad$ by the Justice Party government in the Madras Presidency.
"The scale [communal reservation] to $\qquad$ (65) $\qquad$ social justice is available legally. But we have decided to constitute a committee to monitor whether it is implemented fully," he said in a statement. If the norms were not followed, this committee of bureaucrats, educationists and legal experts would $\qquad$ (66) $\qquad$ appropriate measures. Guidelines for its functioning would be issued soon.
The government made it clear that Justice Cheema's reinstatement was after considering the "peculiar circumstances" of his case, and should not be treated as a precedent. The reinstatement spells relief for Justice Cheema, who had challenged his $\qquad$ (67) $\qquad$ removal from the post on September 10.
(a) flout
(b) abandon
(c) monitor
(d) surpass
(e) encounter

Q64. The Tamil Nadu government will constitute a committee to $\qquad$ (63) $\qquad$ social justice in education, employment, postings, promotions, and appointments, Chief Minister M.K. Stalin said on Thursday, the centenary of the first 'Communal G.O.' $\qquad$ (64) $\qquad$ by the Justice Party government in the Madras Presidency.
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(a) regained
(b) issued
(c) countered
(d) abducted
(e) eliminated


Q65. The Tamil Nadu government will constitute a committee to $\qquad$ (63) $\qquad$ social justice in education, employment, postings, promotions, and appointments, Chief Minister M.K. Stalin said on Thursday, the centenary of the first 'Communal G.O.' $\qquad$ (64) by the Justice Party
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(a) overhaul
(b) mitigate
(c) exclude
(d) eradicate
(e) ensure

Q66. The Tamil Nadu government will constitute a committee to $\qquad$ social justice in education, employment, postings, promotions, and appointments, Chief Minister M.K. Stalin said on Thursday, the centenary of the first 'Communal G.O.' $\qquad$ _(64) $\qquad$ by the Justice Party government in the Madras Presidency.
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(a) compliance
(b) rectified
(c) recommend
(d) coveted
(e) marginal

Q67. The Tamil Nadu government will constitute a committee to $\qquad$ (63) $\qquad$ social justice in education, employment, postings, promotions, and appointments, Chief Minister M.K. Stalin said on Thursday, the centenary of the first 'Communal G.O.' $\qquad$ (64) $\qquad$ by the Justice Party government in the Madras Presidency.
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(a) reconcile
(b) premature
(c) active
(d) suppressed
(e) mature


Directions (68-72): In the given sentences there is an odd one. Find out which sentence is an odd one and rearrange the remaining sentences in the proper sequence to form meaningful paragraph and then answer the questions given below.
(A) The Tamil Nadu e-Governance Agency will set up the dashboard for the Chief Minister to monitor the implementation daily.
(B) The screen would help to monitor the implementation of the welfare schemes announced by his government.
(C) We have addressed the issues facing the banking system in totality that in 2015 was a major challenge for the economy.
(D) Chief Minister M.K. Stalin said on Thursday that a screen would be installed in his office at the Secretariat.
(E) A consultant from the Tamil Nadu e-Governance Agency would be the coordinator for the screen.
(F) The Chief Minister would see the status of the physical and financial targets once a week.

Q68. Which of the following sentences is the ODD one out of all the given sentences?
(a) D
(b) C
(c) E
(d) A
(e) B

Q69. Which of the following should be the FIRST sentence after rearrangement?
(a) A
(b) C
(c) D
(d) F
(e) E

Q70. Which of the following should be the SECOND sentence after rearrangement?
(a) E
(b) D
(c) C
(d) B
(e) A

Q71. Which of the following should be the FIFTH sentence after rearrangement?
(a) E
(b) D
(c) F
(d) A
(e) B

Q72. Which of the following should be the FOURTH sentence after rearrangement?
(a) C
(b) D
(c) A
(d) F
(e) B

Directions (73-75): In the following questions, one highlighted word is given and pairs of words are given in the options which have contained synonym and antonym respectively. Find out which pair of words contains the correct pair of synonym and antonym of the given highlighted word.

Q73. PROFOUND
(a) intense, extreme
(b) earnest, fervent
(c) keen, mild
(d) hasty, fragile

(e) desire, arise

Q74. ABDUCT
(a) endure, snatch
(b) carry, devastate
(c) kidnap, capture
(d) stagger, daunt
(e) seize, release

Q75. DENOUNCE
(a) rescue, adjudicate
(b) procure, devastate
(c) applaud, encourage
(d) condemn, praise
(e) retrieve, prospect
for all Bank \& Insurance Exams

Directions (76-79): In the following question there are three statements in each question. Each sentence has one given blank. Below three statements five options have been given with one word in each. Find the word which must fit in all three sentences to make all the sentences grammatically and contextually correct.

Q76.
(I) There has been some $\qquad$ in economic growth.
(II) The car turning at the corner is an example of $\qquad$ because the direction is changing.
(III) He says that cutting taxes will help in the $\qquad$ of economic growth.
(a) renunciation
(b) proximity
(c) retardation
(d) acceleration
(e) None of these

Q77.
(I) Dinosaurs have been $\qquad$ for millions of years.
(II) Even though a few animals have become $\qquad$ , people can learn more about them by visiting a museum.
(III) It has been more than 250 years since the wolf became $\qquad$ in Britain.
(a) expel
(b) extinct
(c) deduce
(d) fragile
(e) None of these

Q78.
(I) She believes she was an Egyptian queen in a previous

(II) When God appears on Earth as a farmer, his physical form as a farmer is an example of his $\qquad$ on Earth.
(III) For others, he was the horrifying $\qquad$ of random violence.
(a) incarnation
(b) revival
(c) disaster
(d) endanger
(e) None of these

## Q79.

(I) The trial took two days and resulted in a
 fine.
(II) In accordance with the $\qquad$ of all five panelists, Sally was crowned the spelling bee champion.
(III) Following the presence of sufficient pieces of evidence, three judges will deliver their $\qquad$ in October.
(a) contemplation
(b) response
(c) verdict
(d) culprit
(e) None of these

Directions (80-82): Read the passage carefully and answer the questions given below it.
The Indian Space Research Organisation (ISRO) is working on technologies that will enable it to land the GSLV Mk-III launch vehicles vertically, similar to what Elon Musk's SpaceX is doing, and to recover the first and second stages, a senior official said. This will enable the space agency to reuse the GSLV Mk-III, thus helping it save money, the official said. Speaking at an international space conference and exhibition organized by the CII, V.T. Baskar, project director, GSLV MkIII, said the space agency had been working on multiple mini-projects. "If we recover the first and second stages, we will have a lot of cost advantage. Mini projects...have been approved for landing experiments. We have to implement a few enabling technologies to have the capability to take a wing-body or large body to land safely." Mr. Baskar said the ISRO was working on augmenting its technologies for landing launch vehicles and hoped to have a technology demonstrator in the next year.

Q80. What are the benefits of the technologies being developed by the Indian Space Research Organisation (ISRO)?
(a) They will enable vertical landing of the GSLV Mk-III launch vehicles.
(b) They will allow ISRO to compete with SpaceX, which is led by Elon Musk.
(c) The GSLV Mk-III will be able to be reused by the space agency.
(d) Only (a) and (c)
(e) All of these

Q81. According to the passage, what will be the impact(s) of the technologies that the Indian Space Research Organisation (ISRO) is currently working on?
(a) Vertical landing
(b) Competent \& Sustainable
(c) Higher Costing
(d) Only (a) and (b)
(e) All of these

Q82. Which of the following inferences could be drawn from the given passage?
(a) The space agency will be able to reuse the GSLV Mk-III, resulting in a greater cost.
(b) The fundamental goal of ISRO's technological development is to recover the first and second stages.
(c) The ISRO's technologies will enable India to be reliant, competent, and sustainable in space exploration.
(d) Only (a) and (c)
(e) None of these

Directions (83-86): In the questions given below few sentences are given in three columns which are grammatically correct and meaningful. Connect them to make the statements in the best possible way without changing the intended meaning while only COLUMN I contains the starting phrase of the statement. Choose the best possible combination as your answer accordingly from the options to form a correct, coherent sentence.

Q83. COLUMN (I)
(A) The government should send out
(B) Tamil Nadu registered a significant
(C) The NITI Aayog has become an issue COLUMN (II)
(1) messages through the available social

(2) cases against women and children
(3) emergence of social disparity around

COLUMN (III)
(D) increase in the number of criminal
(E) even though they are not concerned
(F) media platforms to educate parents
(a) C2E
(b) BD2 and A1F
(c) A3F
(d) C1D and B3E
(e) None of these

Q84. COLUMN (I)
(A) Although he tried his best
(B) The supreme court stated that it was
(C) getting frustrated with the type

## COLUMN (II)

(1) are among the major issues
(2) when he tried to escape from
(3) not supporting the government

COLUMN (III)
(D) from the depth of his heart in
(E) by staying the High Court order
$(F)$ is a good way to go ahead with
(a) CE1 and DB2
(b) AF3 and BE1
(c) B3E
(d) A1F and B3D
(e) None of these

Q85. COLUMN (I)
(A) At least five members will go
(B) The government has also
(C) The Chief Minister will carry

COLUMN (II)
(1) that could deviate him from the
(2) invitees of the TTD Trust Board
(3) however, to build networks ring

COLUMN (III)
(D) if they would be able to do it again
(E) nominated 50 members as special
(F) making it one of the best moments
(a) BE2
(b) AD3 and BE1
(c) AF3
(d) C1F and BA3
(e) None of these

Q86. COLUMN (I)


(A) Adopted the Karnataka Gram Swaraj
(B) The Legislative Assembly on Thursday
(C) Panchayat Raj Bill that provides restore

COLUMN (II)
(1) the constitution of a delimitation commission
(2) Kerala BJP president K. Surendran was questioned
(3) an election bribery case on Thursday

COLUMN (III)
(D) amid a walkout by the principal opposition
(E) the BJP leader appeared before District Crime
(F) the case was registered by the police based
(a) C1F and BA3
(b) BE1
(c) AD3
(d) CE1 and BF2
(e) None of these

Directions (87-90): In the following question there are three statements in each question. Each sentence has one highlighted word. Below three statements five options have been given with one word. Find out the word which will replace all three highlighted words to make all the sentences grammatically and contextually correct.

Q87. (I) She was found guilty, and as a reference, she lost her job.
(II) His death was totally unexpected and, in combination, no plans had been made for his replacement.
(III) We failed to predict the effects of our actions.
(a) contradiction
(b) resilience
(c) consequence
(d) impediment
(e) No replacements possible

Q88. (I) The government has decided to demolish the old Campus to its former glory.
(II) We decided to buy an old house and manufacture it ourselves.
(III) She helped several elderly residents get grants to adjudicate their homes.
(a) forbid
(b) renovate
(c) validate
(d) abolish
(e) No replacements possible

Q89. (I) The new law will surge police powers to harass the general public unnecessarily.
(II) The latest COVID-19 guidelines will proliferate the spread of infection among people.
(III) The President has remained mute about plans to increase the number of immigrants.
(a) condemn
(b) rejuvenate
(c) surpass
(d) curtail

(e) No replacements possible

Q90. (I) She wanted to teach her children to remain intimidating in their dealings.
(II) He has been Milan's most composed player this season.
(III) Your conduct is not included with what you say.
(a) hinder
(b) expulsion
(c) consistent
(d) repulsive
(e) No replacements possible

Directions (91-95): Read the following passage and answer the following questions. Some words are highlighted to help you answer some of the questions.
In a keynote speech on September 8 in a seminar organized by a think tank, R.K. Singh, Union Minister for Power, New and Renewable Energy stated, "Environment is something we are trustees of and have to leave behind a better environment for our children and great-grandchildren." However, a recent report, "Assessment of Climate Change over the Indian Region" by the Ministry of Earth Sciences (MoES) reveals that India has warmed up $0.7^{\circ} \mathrm{C}$ during 1901-2018. Heatwaves continued to increase with no signs of diminishing greenhouse gas emissions despite lower activity since the novel coronavirus pandemic. Prolonged exposure to heat is becoming detrimental to public health, especially the poor unable to afford support for coping with the heat. India has also suffered two of the 10 most expensive climate disasters in the last two years. Super-cyclone "Cyclone Amphan" that hit India in 2020, cost more than USD13 billion even as the country was just $\qquad$ (A) $\qquad$ from the "June-October Monsoon Flooding" that cost USD10 billion and around 1,600 lives. It was India's heaviest monsoon rain in the last 25 years and the world's seventh costliest.

In early 2021, India suffered two more cyclones: Cyclone Tauktae hitting the west coast and Cyclone Yaas from the east. According to the Internal Displacement Monitoring Centre, India's Internally Displaced Populations (IDPs) are rising due to damaging climate events. Uttarakhand residents began deserting their homes after the Kedarnath floods in 2013 due to heavy precipitation that increases every year. By 2050, rainfall is expected to rise by $6 \%$ and temperature by $1.6^{\circ} \mathrm{C}$. India held the top 10 positions for the second year in a row in 2020's Climate Change Performance Index (CCPI). The country received credit under all of the CCPI's performance fields except renewable energy where India performed medium. India co-founded with France at COP21, in 2015, the International Solar Alliance (ISA) - a coalition of about 120 countries with solar rich resources - which aims at mobilizing USD1 trillion in investments for the deployment of solar energy at affordable prices by 2030. Despite leading ISA, India performed the least in renewable energy according to the CCPI's performance of India.
The Glasgow COP26 offers India a great opportunity to reflect on the years since the Paris Agreement and update NDCs to successfully meet the set targets. India is expected to be the most populated country by 2027, overtaking China, contributing significantly to the global climate through its consumption pattern. India is in a rather unique position to have a significant influence on global climate impact in the new decade. Being one of the observer states of the Climate Vulnerable Forum (CVF) as well as an influential member of COP26, India has the ability to improve its global positioning by leading a favorable climate goal aspiration for the world to follow. The country has the opportunity to not only save itself from further climate disasters but also be a leader in the path to climate change prevention.

Q91. What did the Ministry of Earth Sciences (MoES) conclude from its "Assessment of Climate Change over the Indian Region"?
(a) During the period 1901 to 2018, India warmed by 0.7 degrees Celsius.
(b) Heat waves are continuing to reduce greenhouse gas emissions.
(c) Long-term heat exposure is becoming dangerous to people's health.
(d) All of these
(e) Both (a) \& (c)

Q92. Which of the following statements is/are incorrect about the International Solar Alliance (ISA) based on the information provided in the given passage?
(a) It's a network of around 120 countries with abundant solar energy.
(b) It aspires to attract USD1 trillion in funding for solar energy installations.
(c) According to the CCPI research, India has the best renewable energy performance.
(d) Both (a) \& (b)
(e) None of these

Q93. How can India use its capabilities to strengthen its global positioning, according to the author?
(a) By overtaking China in the global climate through its consumption pattern.
(b) By exerting a big impact on global climate change in the coming decade.
(c) By joining the Climate Vulnerable Forum as an observer state.
(d) By setting a positive climate target for the rest of the world to follow.
(e) All of these

Q94. Which of the following words can fill $\qquad$ (A)?
(a) mitigating
(b) stimulating
(c) recovering
(d) converging
(e) Both (c) and (d)

Q95. Which of the following is the most appropriate antonym (opposite in meaning) of the word- "DESERTING"?
(a) evacuating
(b) abandoning
(c) relinquishing
(d) persisting
(e) None of these

Directions ( $\mathbf{9 6 - 1 0 0}$ ): In the following questions a sentence is provided which is divided into different parts. One of these parts is highlighted and is free from grammatical errors. The remaining parts may or may not be grammatically or contextually correct. Choose the part which is grammatically correct as your answer.

Q96. The CBI questioned the Jharkhand High Court (A)/ on Thursday that the / hit-and-run involve the (B)/ Additional Sessions Judge for the Dhanbad court (C)/ in Jharkhand was deliberate. (D)
(a) D
(b) C
(c) A
(d) B
(e) No error

Q97. The BJP on Friday formally (A)/ announced that it / would contest the (B)/ 2022 Uttar Pradesh Assembly elections in (C)/ alliance with the Nishad Party. (D)
(a) D
(b) B
(c) A
(d) C
(e) No error

Q98. Former Rajasthan Congress / chief Sachin Pilot met (A)/ former Congress chief Rahul Gandhi in Friday (B), /triggering speculated that the Ashok Gehlot government's (C)/ Cabinet reshuffle could happened soon. (D)
(a) D
(b) B
(c) A
(d) C
(e) No error

Q99. The High Court had / approve a July 29 notification (A)/ of the Central government providing $27 \%$ reservation in (B)/ OBC candidates for admission in central medical colleges (C)/for the All-India Quota. (D)
(a) D
(b) B
(c) A
(d) C
(e) No error


Q100. A journalist died and a / member of the Odisha Disaster Rapid (A)/ Action Force (ODRAF) were reported missing after a (B)/ boat send to rescue a wild elephant stranded in the (C)/ flooding Mahanadi river capsized on Friday. (D)
(a) D
(b) B
(c) A
(d) C
(e) No error

Q101. National Women's Day in India is observed annually on which date to commemorate the birth anniversary of Sarojini Naidu, known as the "Nightingale of India"?
(a) 13th February
(b) 8th March
(c) 24th January
(d) 19th November
(e) 5th April

Q102. ATS has been developed to submit any individual application to the Reserve Bank of India (RBI) and keep track of the status of its disposal thereafter. What does ' $S$ ' mean in 'ATS'?
(a) Submission
(b) System
(c) Service
(d) Solution
(e) Surveillance

Q103. Under the newly established Swatantra Yuva Udyami Scheme (SWAYAM) by the Odisha cabinet, unemployed/underemployed youths in the age group of 18-35 residing in Odisha can avail an interest-free loan of up to what amount to start a new business or expand existing ones?
(a) Rs 50,000
(b) Rs 70,000
(c) Rs 75,000
(d) Rs 1 lakh
(e) Rs 2 lakhs

Q104. In January 2024, RBI issued a draft framework that lays down broad functions, governance standards, and eligibility criteria for setting up an 'SRO-FT'. What does 'R' in the acronym 'SRO-FT' stand for?
(a) Risk
(b) Regulatory
(c) Registered
(d) Rational
(e) Return

Q105. Which company unveiled (In February 2024) India's first private sector ammunition-missile manufacturing complex in Kanpur, Uttar Pradesh (UP), which is set to become South Asia's largest integrated ammunition manufacturing complex?
(a) Tata Advanced Systems
(b) Mahindra Defence Systems
(c) Bharat Forge
(d) Adani Defence and Aerospace
(e) Larsen \& Toubro


Q106. Under the Swachh Bharat Mission (Grameen) Phase II, India has set a target to achieve Open Defecation Free (ODF) Plus status in all villages by which year?
(a) 2022
(b) 2023
(c) 2024
(d) 2025
(e) 2026

Q107. In September 2023, which bank signed a Memorandum of Understanding (MoU) with REC Limited for collaboration to explore potential funding opportunities in the Power Sector and Infrastructure \& Logistics Sector through a consortium arrangement, with a plan to jointly provide financing worth Rs. $\mathbf{5 5 , 0 0 0}$ crores over the next three years?
(a) State Bank of India (SBI)
(b) HDFC Bank
(c) Punjab National Bank (PNB)
(d) ICICI Bank
(e) Axis Bank

Q108. Who was conferred with (In October 2023) the Dada Saheb Phalke Award for the year 2021 for their lifetime contribution to Indian cinema?
(a) Amitabh Bachchan
(b) Rajinikanth
(c) Dilip Kumar
(d) Lata Mangeshkar
(e) Waheeda Rehman

Q109. In January 2024, DLabs at the Indian School of Business (ISB) initiated the 'Build for Billions' startup accelerator program focused on financial inclusion for the informal economy. This innovative program was launched in partnership with the Reserve Bank Innovation Hub (RBIH) and which bank?
(a) State Bank of India
(b) HDFC Bank
(c) ICICI Bank
(d) Union Bank of India
(e) Punjab National Bank

Q110. What is Greenwashing?
(a) A process where companies use green energy to power their operations
(b) The act of planting trees to offset carbon emissions
(c) A marketing strategy to sell organic products
(d) The process of conveying misleading information about how environmentally sound a company's products are
(e) A certification awarded to companies for achieving zero waste

Q111. In January 2024, which of India's largest private sector lenders is seeking approval for a banking license in Singapore to tap into the Indian diaspora for savings and term deposits, as well as to cross-sell products like mortgages?
(a) ICICI Bank
(b) HDFC Bank
(c) Axis Bank
(d) Kotak Mahindra Bank
(e) Yes Bank

Q112. The Government of India (GoI) through its citizen engagement platform MyGov announced (In February 2024) the first-ever 'National Creators Award' to recognize and celebrate the contributions of newage influencers, and content creators and celebrate India's digital creator economy. Awards will be presented across $\qquad$ categories.
(a) $10+$
(b) $15+$
(c) $20+$
(d) $25+$
(e) $30+$

Q113. In February 2024, the Defence Acquisition Council (DAC), under the chairmanship of Raksha Mantri Rajnath Singh, accorded approval for Acceptance of Necessity (AoNs) for various capital acquisition proposals. The total amount for these proposals is $\qquad$ .
(a) Rs 54,500 crore
(b) Rs 64,560 crore
(c) Rs 74,560 crore
(d) Rs 84,560 crore
(e) Rs 94,560 crore

Q114. Who was honoured (In February 2024) with a special award at the Lokmat Maharashtrian of the Year 2024 (LMOTY 2024) ceremony in Mumbai?
(a) Mukesh Ambani
(b) Anand Mahindra
(c) Isha Ambani
(d) Uday Kotak
(e) Nita Ambani

Q115. Skyroot Aerospace Private Limited, a Hyderabad (Telangana)-based space startup, has introduced a unique fellowship program dedicated exclusively to women engineers in the space sector. What is the name of this fellowship program?
(a) Aryabhata Fellowship
(b) Ramanujan Fellowship
(c) Kalpana Fellowship
(d) Saraswati Fellowship
(e) Indira Fellowship

Q116. In February 2024, with which international agency did the Government of India sign loan agreements to finance a total of up to $\mathbf{2 3 2 , 2 0 9}$ million yen for nine projects?
(a) Mitsubishi UFJ Financial Group (MUFG) Bank
(b) Sumitomo Mitsui Banking Corporation
(c) Mizuho Bank
(d) The Japan International Cooperation Agency
(e) Resona Bank

Q117. Who has been recently (in January 2024) appointed as Chairman of the 16th Finance Commission, constituted by the Government of India?
(a) Arvind Panagariya
(b) Arvind Subramanian
(c) Raghuram Rajan
(d) Amitabh Kant
(e) Suman K. Bery


Q118. The Board of Control for Cricket in India (BCCI) has announced (in January 2024) Campa as one of the official partners for the India Home Cricket Season 2024-26. Campa, a soft drink brand, is owned by which company?
(a) Coca-Cola
(b) PepsiCo
(c) Tata Consumer Products
(d) Parle Agro
(e) Reliance Industries

Q119. Cape Horn, known for its rocky headland, is located in which country?
(a) Australia
(b) Chile
(c) Canada
(d) South Africa
(e) Norway

Q120. P Santhosh, appointed as Managing Director (MD) and Chief Executive Officer (CEO) of National Asset Reconstruction of India Limited (NARCL) effective from January 5, 2024, also serves as the Chief General Manager (CGM) of which bank?
(a) State Bank of India
(b) Punjab National Bank
(c) Bank of Baroda
(d) Canara Bank
(e) HDFC Bank

Q121. In January 2024, which state became the first in India to map all 784 accident black spots on the mobile application "Mappls", a navigation system developed by C. E. Info Systems Limited (MapmyIndia)?
(a) Punjab
(b) Maharashtra
(c) Karnataka
(d) Gujarat
(e) Tamil Nadu

Q122. In which year was the Indian Science Technology and Engineering facilities Map (I-STEM), the national web portal for sharing R\&D facilities, formally launched by the Honorable Prime Minister Narendra Modi?
(a) 2018
(b) 2019
(c) 2020
(d) 2021
(e) 2022

Q123. Union Minister Amit Shah inaugurated and addressed (In January 2024) the 5th International and 44th All India Criminology Conference at National Forensic Science University (NFSU). Additionally, he inaugurated the Centre of Excellence in Digital Forensics at NFSU to support capacity building and investigation. In which city of Gujarat did this event take place?
(a) Ahmedabad
(b) Surat
(c) Vadodara
(d) Gandhinagar
(e) Rajkot

Q124. Which company, a leading player in India's consumer electrical industry, has been honored (In December 2023) with the prestigious National Energy Conservation Award 2023?
(a) Havells India Ltd.
(b) Bajaj Electricals Ltd.
(c) Philips Electronics India Ltd.
(d) Crompton Greaves Consumer Electricals Ltd.
(e) Usha International Ltd.

Q125. Which among the following has bagged the prestigious Engineering News-Record 2023 - Global Best Projects Awards for the construction of the New Parliament Building?
(a) Larsen \& Toubro
(b) Tata Projects Limited
(c) Shapoorji Pallonji Group
(d) Reliance Infrastructure
(e) Hindustan Construction Company

Q126. FEMA, which replaced the older Foreign Exchange Regulation Act (FERA), started on June 1, 2000. What does FEMA stand for?
(a) Foreign Exchange Management Agency
(b) Financial Exchange Management Act
(c) Foreign Economic Management Act
(d) Foreign Exchange Management Act
(e) Finance and Exchange Management Act

Q127. Union Minister of Education and Skill Development \& Entrepreneurship, Shri Dharmendra Pradhan, inaugurated the 52nd edition of the New Delhi World Book Fair at Bharat Mandapam, New Delhi in February 2024. What is the theme of this year's fair?
(a) Reading for Equality
(b) Environment and Climate Change
(c) Multilingual India: A Living Tradition
(d) Digital India: The Future
(e) Literature in the Digital Age

Q128. The government has estimated India's fiscal deficit to be what percentage of the gross domestic product (GDP) for the financial year 2024-2025 (FY25), as announced by Finance Minister Nirmala Sitharaman in her Interim Budget 2024-25 speech?
(a) $3.4 \%$
(b) $4.1 \%$
(c) $5.1 \%$
(d) $6.1 \%$
(e) $7.1 \%$

Q129. Which Union Ministry of India has organized the event known as "Bharat Parv" in January 2024 ?
(a) Ministry of Culture
(b) Ministry of External Affairs
(c) Ministry of Home Affairs
(d) Ministry of Education
(e) Ministry of Tourism

Q130. The Union Cabinet has approved (In February 2024) the establishment of the International Big Cat Alliance (IBCA) with its headquarters in India, providing one-time budgetary support for a period of five years from 2023-24 to 2027-28. What is the amount of budgetary support approved for this period?
(a) Rs. 50 crores
(b) Rs. 100 crores
(c) Rs. 150 crores
(d) Rs. 200 crores
(e) Rs. 250 crores

Q131. In February 2024, the Global anti-money laundering watchdog the Financial Action Task Force (FATF) removed the United Arab Emirates from its "grey list" of countries subject to increased monitoring. The headquarters of the Financial Action Task Force (FATF) is located in:
(a) Paris, France
(b) Geneva, Switzerland
(c) New York, USA
(d) London, United Kingdom
(e) Brussels, Belgium

Q132. According to NITI Aayog CEO B V R Subrahmanyam, the latest consumer expenditure survey (In February 2024) indicates that poverty in the country has come down to $\qquad$ percent, showing prosperity growth in both rural and urban areas?
(a) $2 \%$
(b) $5 \%$
(c) $8 \%$
(d) $10 \%$
(e) $12 \%$

Q133. 'Maitri Diwas' is observed annually by India on 6th December to celebrate diplomatic relations with which country?
(a) Nepal
(b) Bangladesh
(c) Bhutan
(d) Sri Lanka
(e) Myanmar

Q134. In February 2024, India signed a Memorandum of Understanding (MoU) on Cooperation in the field of Sharing Successful Digital solutions Implemented at Population Scale for Digital Transformation with which country?
(a) Brazil
(b) South Africa
(c) Colombia
(d) Argentina
(e) Mexico

Q135. In a strategic move to enhance its capabilities in the realm of artificial intelligence, Accenture has recently (In December 2023) inaugurated a state-of-the-art Generative AI Studio in which city in India?
(a) Mumbai
(b) Hyderabad
(c) Chennai
(d) Bengaluru
(e) Kolkata


Q136. In November 2023, who received the first-ever "Lifetime Disturbing the Peace Award" presented by the Vaclav Havel Center in Manhattan, New York, United States of America (USA)?
(a) Arundhati Roy
(b) Vikram Seth
(c) Amitav Ghosh
(d) Jhumpa Lahiri
(e) Salman Rushdie

Q137. HyderabadDLabs at the Indian School of Business (ISB) launched (In January 2024) 'Build for Billions', a startup accelerator program themed around financial inclusion for the informal economy, in partnership with Reserve Bank Innovation Hub (RBIH) and which bank?
(a) State Bank of India
(b) HDFC Bank
(c) ICICI Bank
(d) Union Bank of India
(e) Punjab National Bank

Q138. The National Payments Corporation of India (NPCI) announced (In November 2023) the appointment of which acclaimed Bollywood actor as its 'UPI Safety Ambassador' to strengthen safety awareness on digital payment platforms?
(a) Pankaj Tripathi
(b) Rajkummar Rao
(c) Nawazuddin Siddiqui
(d) Ayushmann Khurrana
(e) Manoj Bajpayee

Q139. The Indian Navy and the navy of which country conducted their first bilateral exercise, named 'ExAyutthaya', from December 20th to 23rd, 2023?
(a) Thailand
(b) Japan
(c) Australia
(d) Indonesia
(e) Russia

Q140. Who has been appointed (In February 2024) as the Managing Director (MD) and Chief Executive Officer (CEO) of LIC Mutual Fund Asset Management Ltd (LIC AMC), the investment manager of LIC Mutual Fund (LICMF)?
(a) Vikram Limaye
(b) Sandeep Bakhshi
(c) Ravi Kumar Jha
(d) Uday Kotak
(e) Shikha Sharma

Q141. Which Indian Institute of Technology has recently signed (In February 2024) an agreement with the Centre for Development of Telematics (C-DOT) to develop a 140 GigaHertz Fully Integrated Transmitter \& Receiver Module for 6G?
(a) IIT Bombay
(b) IIT Roorkee
(c) IIT Madras
(d) IIT Kanpur
(e) IIT Kharagpur


Q142. Which company has recently (In February 2024) launched the "Indus Appstore," a made-in-India Android-based mobile application store for consumers in India?
(a) Infosys
(b) TCS
(c) Reliance Jio
(d) PhonePe
(e) HCL Technologies

Q143. Magnetic Ink Character Recognition (MICR) is a unique code used to identify the particular branch of a particular bank, mainly by the banking industry to ease the processing and clearance of cheques and other documents. How many digits does this code consist of?
(a) 6
(b) 7
(c) 8
(d) 9
(e) 10

Q144. By which year has the Insurance Regulatory and Development Authority of India (IRDAI) committed to enable 'Insurance for All', ensuring every citizen has appropriate life, health, and property insurance cover, and every enterprise is supported by appropriate insurance solutions, with the aim of making the Indian insurance sector globally attractive?
(a) 2038
(b) 2040
(c) 2047
(d) 2052
(e) 2060

Q145. The Ministry of Heavy Industries (MHI) constituted (In January 2024) a committee to examine the demand for including more components in the Production Linked Incentive (PLI) Scheme for Automobile and Auto Component Industry (PLI-AUTO). Under the chairmanship of whom was this committee constituted?
(a) Ajay Gururani
(b) Anand Mahindra
(c) Deepak Purohit
(d) Hanif Qureshi
(e) Nikhil Gajraj

Q146. Recently (In September 2023), the Union Cabinet approved an expansion for the Pradhan Mantri Ujjwala Yojana, including the distribution of 75 lakh more LPG connections over the next three years. In what year did Prime Minister Narendra Modi first introduce this scheme?
(a) 2016
(b) 2017
(c) 2014
(d) 2015
(e) 2018


Q147. The annual 'Shar Amartala Torgya' festival, celebrated every year, is a significant cultural event in which Indian state?
(a) Uttarakhand
(b) Himachal Pradesh
(c) Sikkim
(d) Arunachal Pradesh
(e) Assam

Q148. Which Indian cricketers recently (in January 2024) won the awards for the best men's international cricketer and the best women's international cricketer of 2022-23, respectively, at the BCCI Awards (Naman Awards) 2024 held in Hyderabad, Telangana?
(a) Shubman Gill \& Deepti Sharma
(b) Rohit Sharma \& Harmanpreet Kaur
(c) Virat Kohli \& Mithali Raj
(d) KL Rahul \& Smriti Mandhana
(e) Jasprit Bumrah \& Jhulan Goswami

Q149. What is the surrender value in the context of life insurance policies?
(a) The premium paid for the insurance policy
(b) The amount the policyholder owes to the insurance company
(c) The amount offered to the policyholder when they choose to terminate the policy before its maturity
(d) The total amount assured at the end of the policy term
(e) The interest earned on the insured amount

Q150. Valmiki Tiger Reserve is located in which Indian state?
(a) Madhya Pradesh
(b) West Bengal
(c) Karnataka
(d) Bihar
(e) Assam

Directions (151-155): Read the following table carefully and answer the questions given below. Table shows total number of employees (males +females) and difference between number of male employees and female employees in a company in five different years.
Note: Number of males is more than number of females in each year.

| Years | Total number of <br> employees | Difference between <br> number of male <br> employees and number <br> of female employees |
| :---: | :---: | :---: |
| 2017 | 1200 | 650 |
| 2018 | 950 | 250 |
| 2019 | 800 | 200 |
| 2020 | 1450 | 450 |
| 2021 | 1600 | 500 |

Q151. Number of female employees in 2021 is what percent more/less than number of male employees in 2019?
(a) $15 \%$
(b) $10 \%$
(c) $5 \%$
(d) $20 \%$
(e) $25 \%$

Q152. Male and female employees in 2020 work in H.R. and Sales are in the ratio 11:8 and 14:11 respectively. Find the difference between number of employees work in H.R. and that in Sales (Note: In given years all the employees work only in HR and Sales)?
(a) 210
(b) 245
(c) 190
(d) 285
(e) 160

Q153. Find the ratio of male employees in 2018 and 2021 together to female employee in 2017 and 2019 together?
(a) $61: 25$
(b) $66: 29$
(c) $65: 22$
(d) $66: 23$
(e) $67: 25$

Q154. Number of female employees in 2022 are $55 \%$ more than male employees in 2019. If ratio of total employees in 2018 to male employees in 2022 is 10:3 respectively, then find the total number of employees in 2022?
(a) 945
(b) 860
(c) 1240
(d) 1125
(e) 1060

Q155. Find the average number of female employees in 2021, 2018 and 2019 ?
(a) 450
(b) 400
(c) 520
(d) 600
(e) 250

Directions (156-160): What approximate value will come in place of question mark (?) in the following questions (You are not expected to calculate the exact value).

Q156. ${ }^{(19.89 \%}$ of $\left.\mathbf{3 2 0 . 0 2}\right) \div(\mathbf{7 . 9 2} \times 4.12)+$ ? $=40.24 \%$ of $\mathbf{1 0 2 0 . 2 5}$
(a) 452
(b) 298
(c) 510
(d) 406
(e) 388

Q157. $41.96 \times 9.88-63.02 \div 3.04=?+78.02$
(a) 298
(b) 124
(c) 92
(d) 240
(e) 321

Q158. ${ }^{10.14} \times \mathbf{8 . 0 9}+\mathbf{5 . 9 0}$ of $\mathbf{2 4 . 9 2} \%$ of $\mathbf{4 0 . 1 2}=$ ?
(a) 216
(b) 198
(c) 92
(d) 140
(e) 128

Q159. $\sqrt{576.07} \times \sqrt{99.92}-11.11 \times(4.99)^{2}=\sqrt{\text { ? }}$
(a) 1225
(b) 1024

(c) 961
(d) 841
(e) 900

Q160. ${ }^{\frac{2.89}{9.92}} \times 20.12+\frac{7.98}{10.15} \times 25.22=\sqrt{?}$
(a) 400
(b) 676
(c) 324
(d) 625
(e) 729

Directions (161-165): In each of these questions a number series is given. In each series only one number is wrong. Find out the wrong number.

Q161. 17, 18, 21, 28, 41, 62, 95
(a) 17
(b) 95
(c) 18
(d) 28
(e) 62

Q162. 106, 54, 56, 88, 182, 476, 1460
(a) 182
(b) 54
(c) 88
(d) 1460
(e) 106


Q163. 19440, 3240, 648, 160, 54, 27, 27
(a) 3240
(b) 54
(c) 648
(d) 160

(e) 19440

Q164. 94, 90, 98, 71, 135, 10, 226
(a) 94
(b) 90
(c) 135
(d) 10
(e) 226

Q165. 228, 228, 114, 342, 85.5, 425.5, 71.25
(a) 71.25
(b) 425.5
(c) 114
(d) 342
(e) 85.5

Directions (166-170): Paragraph given the information about certain number of bottles sold by two companies ( P and Q ). Read the information carefully and answer the questions.
Company P: Total 60 bottles sold and ratio of marked price and selling price of each bottle is 20:17 respectively. Company markup price of each bottle $25 \%$ above its cost price and total selling price of all bottles is Rs. 5100 .
Company Q: Company markup price of each bottle $40 \%$ above its cost price and allows $20 \%$ discount on each bottle. Profit earned by company by selling all bottles is Rs. 960 and total bottles sold by company is 80.

Q166. Find the ratio of sum of cost price of bottles of company $Q$ to sum of marked price of bottles of company $P$.
(a) $4: 5$
(b) $4: 3$
(c) $5: 3$
(d) $3: 2$
(e) $1: 3$

Q167. Find the difference between sum of selling price of bottles of company $P$ and sum of marked price of bottles of company $Q$.
(a) Rs. 6100
(b) Rs. 6700
(c) Rs. 4500
(d) Rs. 5200
(e) Rs. 7400

Q168. Marked price of each bottle of company $Q$ is what percent of cost price of each bottle of company P?
(a) $150 \%$
(b) $225 \%$
(c) $100 \%$
(d) $125 \%$

(e) $175 \%$

Q169. Find the average of selling price of bottle of company $P$ and that of company $Q$.
(a) Rs. 98.5
(b) Rs. 105.5
(c) Rs. 94
(d) Rs. 100.5
(e) Rs. 92.5

Q170. Find the sum of total marked price of all bottles of company $P$ and that of company $Q$.
(a) Rs. 12400
(b) Rs. 17200
(c) Rs. 15800
(d) Rs. 11100
(e) Rs. 19500

Q171. If radius and height of a conical toy is increased by $20 \%$ respectively, then its volume become $691.2 \mathrm{~cm}^{3}$. Find the volume of a cylinder whose radius is twice of the conical toy and height is same as conical toy?
(a) $5200 \mathrm{~cm}^{3}$
(b) $4400 \mathrm{~cm}^{3}$
(c) $4800 \mathrm{~cm}^{3}$
(d) $4000 \mathrm{~cm}^{3}$
(e) $5600 \mathrm{~cm}^{3}$

Q172. A shopkeeper marked an article $80 \%$ above the cost price and sold it after two consecutive discounts of $\mathbf{2 5 \%}$ and $\mathbf{1 0 \%}$ respectively. If shopkeeper earned profit of Rs. 860 , then find the marked price of the article.
(a) Rs. 7800
(b) Rs. 7200
(c) Rs. 4200
(d) Rs. 5200
(e) Rs. 6600

Q173. A train can cross a man moving with a speed of $10 \mathrm{~m} / \mathrm{s}$ in opposite direction of the train in 15 seconds. It can cross the same man in 18 seconds when the man moving with speed of $10 \mathrm{~m} / \mathrm{s}$ in the same direction as that of train. Find the length of train in km.
(a) 2.4
(b) 1.4
(c) 2.9
(d) 1.1
(e) 1.8

Q174. Monthly income of $A$ and $B$ is in the ratio of $6: 5$ respectively. If $A$ and $B$ saves Rs. 12000 and Rs. 14000 respectively and expenditure of $A$ is $100 \%$ more than that of $B$, then find the monthly income of $B$.
(a) Rs. 20000
(b) Rs. 25000
(c) Rs. 28000
(d) Rs. 17000
(e) Rs. 21000

Q175. Ratio of number of males to number of females in a company is $8: 7$ respectively. If the $\mathbf{4 0 \%}$ males and $\mathbf{6 0 \%}$ females increased in the company, then find the ratio of females to males in the company.
(a) $1: 2$
(b) $1: 4$
(c) $4: 1$
(d) $5: 1$
(e) $1: 1$

Q176. A mixture contains milk and water in the respective ratio of 13:9. If 44-liter mixture is taken out and 2 liters of milk \& 6 liters of water added in the remaining mixture, the ratio of milk to water becomes $4: 3$ respectively, then find the initial quantity of water.
(a) 70 liters
(b) 72 liters
(c) 78 liters
(d) 64 liters
(e) 80 liters

Q177. $P$ and $Q$ can complete a work in $(X+15)$ days and 25 days respectively. If $P$ and $Q$ together complete the same work in $11 \frac{1}{9}$ days, then find what percentage of work $P$ can complete in ( $X+5$ ) days when he works alone?
(a) $50 \%$
(b) $25 \%$
(c) $40 \%$
(d) $60 \%$
(e) $20 \%$

Q178. Simple interest obtained from Rs. 3400 at $\mathrm{R} \%$ p.a. for x years is Rs.680. If the simple interest obtained from Rs. 5000 on the same rate of interest for 4 four years is Rs.2000, then find the value of 2 x .
(a) 7
(b) 1
(c) 5
(d) 8
(e) 4

Q179. Speed of current is $40 \%$ more than speed of boat in upstream. If boat can travel a distance of $570 \mathbf{k m}$ downstream in $\mathbf{1 2}$ hours, then find the time taken by boat to cover $\mathbf{2 2 5} \mathbf{~ k m}$ in still water.
(a) 5.5 hours
(b) 8 hours
(c) 4.5 hours
(d) 7.5 hours
(e) 9 hours

Q180. The ratio of age of $P$ eight year ago to age of $Q$ eight years hence is $1: 1$ respectively and age of $P 15$ years ago was same as present age of $R$. If $S$ is 20 years older than $R$, then find the difference between present age of $S$ and present age of $Q$.
(a) 28 years
(b) 24 years
(c) 19 years
(d) 21 years
(e) 17 years

Directions (181-185): In each of these questions, two equation (I) and (II) are given. You have to solve both the equations and give answer

Q181.
I. $\frac{3}{x}+\frac{7}{x^{2}}=4$
II. $\boldsymbol{y}^{\mathbf{3}}-19=493$
(a) If $x>y$
(b) If $x \geq y$
(c) If $x<y$
(d) If $x \leq y$
(e) If $x=y$ or no relation can be established between $x$ and $y$

Q182.
I. $x^{\frac{3}{2}}-\frac{9}{1}=0$
II. $\frac{18}{y^{2}}-\frac{x^{\frac{1}{2}}}{y}=-1$
(a) If $x>y$
(b) If $x \geq y$
(c) If $x<y$
(d) If $x \leq y$
(e) If $x=y$ or no relation can be established between $x$ and $y$

Q183.
I. $2 x^{2}+7 x-49=0$
II. $2 y^{2}-25 y+68=0$
(a) If $x>y$
(b) If $x \geq y$
(c) If $x<y$
(d) If $x \leq y$
(e) If $x=y$ or no relation can be established between $x$ and $y$

Q184.
I. $(5 x-9)^{2}=16$
II. $(2 y-7)^{2}=64$
(a) If $x>y$
(b) If $x \geq y$
(c) If $x<y$
(d) If $x \leq y$
(e) If $x=y$ or no relation can be established between $x$ and $y$

Q185.
I. $x^{2}-10 x+21=0$
II. $y^{2}+12 y+32=0$
(a) If $x>y$
(b) If $x \geq y$
(c) If $x<y$
(d) If $x \leq y$
(e) If $x=y$ or no relation can be established between $x$ and $y$

Directions (186-191): Bar graph shows total quantity (in kg) of two different type of fruits (mango and kiwi) sold and percentage of quantity of mangoes sold more than that of kiwis by five different sellers. Read the following bar graph carefully and answer the questions given below.


Q186. Total quantity of kiwis sold by $R$ is what percent of total quantity of mangoes sold by $T$ ?
(a) $62.5 \%$
(b) $50 \%$
(c) $25 \%$
(d) $32.5 \%$
(e) $87.5 \%$

Q187. If total quantity of apples sold by $S$ is $50 \%$ more than total quantity of kiwis sold by $P$, then find the ratio of total quantity of mangoes sold by $\mathbf{Q}$ to total quantity of apples sold by $S$ ?
(a) $7: 5$
(b) $7: 6$
(c) $5: 6$
(d) $8: 5$
(e) $4: 7$

Q188. If selling price of mangoes and kiwis are Rs. 55 per kg and 90 per kg respectively, then find the total amount received by seller $R$ to sold all quantity of mangoes and kiwis?
(a) Rs. 32500
(b) Rs. 37400
(c) Rs. 42000
(d) Rs. 39000
(e) Rs. 45000

Q189. If ratio of total quantity of kiwis sold by $\mathbf{Q}$ to total quantity of mangoes sold by $\mathbf{U}$ is 5:7 respectively and total quantity of kiwis sold by $U$ is $\mathbf{2 0 \%}$ less than total quantity of mangoes sold by $S$, then find the total quantity of fruits (kiwi + mango) sold by $U$ (in kg)?
(a) 550
(b) 475
(c) 770
(d) 620
(e) 494

Q190. If 32.5\% of total quantity of kiwis and $30 \%$ of total quantity of mangoes sold by $P$ are returned to him, then find the unreturned quantity of kiwis and mangoes sold by $P$ (in $\mathbf{k g}$ )?
(a) 310
(b) 340
(c) 280
(d) 220
(e) 460

Q191. Find the difference between average quantity of kiwis sold by $T \& Q$ and total quantity of fruits (kiwi+ mango) sold by $S$ ?
(a) 75
(b) 20
(c) 100
(d) 25
(e) 50

Directions (192-195): The following questions are accompanied by two statements (I) and (II). You have to determine which statements( $s$ ) is/are sufficient/necessary to answer the questions.

Q192. How many children are required to complete the work in $\mathbf{2 0}$ days, if efficiency of a child is $\mathbf{7 5 \%}$ less than efficiency of a man?
I. $(a+3)$ men can complete a piece of work in $(a+8)$ days and $(14+a)$ men can complete same piece of work in 50 days.
II. Efficiency of a man is $60 \%$ more than efficiency of a woman who can complete the work in 240 days
(a) Statement (I) alone is sufficient to answer the question but statement (II) alone is not sufficient to answer the question.
(b) Statement (II) alone is sufficient to answer the question but statement (I) alone is not sufficient to answer the question.
(c) Both the statements taken together are necessary to answer the question, but neither of the statements alone is sufficient to answer the question.
(d) Either statement (I) or statement (II) by itself is sufficient to answer the question.
(e) Statements (I) and (II) taken together are not sufficient to answer the question.

## Q193. Find the selling price of book.

I. Shopkeeper marked the book 80\% above its cost price and shopkeeper allowed $20 \%$ discount on it. Had he sold the book on marked price, then he would have earned Rs. 1800 more.
II. Ratio of selling price of book to marked price of book is 10:13 and discount allowed on the book is Rs. 40 less than profit earned on the book. Discount allowed on the book is $43.2 \%$ of cost price of the book,
(a) Statement (I) alone is sufficient to answer the question but statement (II) alone is not sufficient to answer the question.
(b) Statement (II) alone is sufficient to answer the question but statement (I) alone is not sufficient to answer the question.
(c) Both the statements taken together are necessary to answer the question, but neither of the statements alone is sufficient to answer the question.
(d) Either statement (I) or statement (II) by itself is sufficient to answer the question.
(e) Statements (I) and (II) taken together are not sufficient to answer the question.

Q194. A box contains blue, black and green color balls. Find total number of balls in the box, if number of green balls in the box is 2 .
I. When two balls are drawn from the bag randomly, then probability of getting 1 blue ball and 1 green ball is $2 / 9$.
II. When 2 balls are drawn from the bag randomly, then probability of getting both blue balls is $2 / 9$
(a) Statement (I) alone is sufficient to answer the question but statement (II) alone is not sufficient to answer the question.
(b) Statement (II) alone is sufficient to answer the question but statement (I) alone is not sufficient to answer the question.
(c) Both the statements taken together are necessary to answer the question, but neither of the statements alone is sufficient to answer the question.
(d) Either statement (I) or statement (II) by itself is sufficient to answer the question.
(e) Statements (I) and (II) taken together are not sufficient to answer the question.

## Q195. How many bikes were sold in 2021 by a company (One person bought only 1 bike)?

I. In 2020, 80000 people thought about buying a bike and only $62.5 \%$ people bought it.
II. Bikes sold in 2021 are $25 \%$ more than bikes sold in 2020.
(a) Statement (I) alone is sufficient to answer the question but statement (II) alone is not sufficient to answer the question.
(b) Statement (II) alone is sufficient to answer the question but statement (I) alone is not sufficient to answer the question.
(c) Both the statements taken together are necessary to answer the question, but neither of the statements alone is sufficient to answer the question.
(d) Either statement (I) or statement (II) by itself is sufficient to answer the question.
(e) Statements (I) and (II) taken together are not sufficient to answer the question.

Directions (196-200): Given below pie chart shows percentage distributions of total distance covered by five different boats in upstream, while table shows time taken by these 5 boats to cover given distance and ratio of speed of boat in still water to speed of stream while covering the given distance.
Total distance $=\mathbf{2 5} \mathbf{~ k m}$

| Boats | Time (in <br> minutes) | Ratio of boat in still <br> water to speed of stream |
| :---: | :---: | :---: |
| A | 30 | $3: 1$ |
| B | 45 | $4: 1$ |
| C | 15 | $2: 1$ |
| D | 30 | $5: 2$ |
| E | 24 | $6: 1$ |

Q196. Find ratio of time taken by each boat $A \& C$ to cover 96 km in downstream?
(a) $3: 4$
(b) $3: 5$
(c) $2: 3$
(d) $3: 7$
(e) $4: 5$

Q197. If boat $D$ takes total 20 hours to cover $D$ km each in downstream and in upstream, then find total distance covered by boat $D$ ?
(a) 168 km
(b) 164 km
(c) 156 km
(d) 184 km
(e) 180 km

Q198. Downstream speed of boat $E$ is what percent more than downstream speed of boat $B$ ?
(a) $50 \%$
(b) $20 \%$
(c) $45 \%$
(d) $30 \%$
(e) $40 \%$

Q199. If downstream speed of boat $F$ is $75 \%$ more than that of $B$ and ratio of speed of stream for $F$ to speed of boat $F$ in still water is $2: 5$, then find time taken by boat $F$ to cover 120 km in upstream?
(a) 4 hours
(b) 7.5 hours
(c) 6 hours
(d) 8 hours
(e) 10 hours

Q200. Find difference between downstream speed of boat $D$ and that of boat $A$ ?
(a) $1 \mathrm{~km} / \mathrm{hr}$
(b) $6 \mathrm{~km} / \mathrm{hr}$
(c) $2 \mathrm{~km} / \mathrm{hr}$
(d) None of these
(e) $4 \mathrm{~km} / \mathrm{hr}$

## Solutions

## S1. Ans.(e)

Sol.
Final arrangement:

| Designations | Persons | Places |
| :---: | :---: | :---: |
| Founder | Phoebe | Seattle |
| Lead <br> Engineer | Ulysses | Los Angeles |
| Marketing <br> Director | Penelope | Boston |
| Financial <br> Manager | Yara | San <br> Francisco |
| Product <br> Manager | Quinlan | New York |
| Sales <br> Executive | Quinton | Houston |
| Operations <br> Coordinator | Zara | Chicago |
| Trainee | Ulric | Denver |
| UX Designer | Xavier | Washington |



## Clues:

There are three designations between Ulysses and Quinton who is not senior to Ulysses. Ulric is a Trainee. Quinton is not the juniormost employee.

## Inference:

From these clues, we get three possible cases: -


| Designations | Persons | Places | Persons |  | Places | Persons |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 2 |  | Case 3 |  |  |  |
|  | Caces |  |  |  |  |  |
| Founder | Ulysses |  |  |  |  |  |
| Lead <br> Engineer |  |  | Ulysses |  |  |  |
| Marketing <br> Director |  |  |  |  | Ulysses |  |
| Financial <br> Manager |  |  |  |  |  |  |
| Product <br> Manager | Quinton |  |  |  |  |  |
| Sales <br> Executive |  |  | Quinton |  |  |  |
| Operations <br> Coordinator |  |  |  |  | Quinton |  |
| Trainee | Ulric |  | Ulric |  | Ulric |  |
| UX Designer |  |  |  |  |  |  |

Clues: The number of persons senior to Quinton is the same as the number of persons junior to Yara who is from San Francisco. There are two designations between Yara and the one who is from Chicago.

## Inference:

Case 1 and case 3 are cancelled here a there is no place for Yara.

| Designations | Persens | Places | Persons | Places | Persens | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gase 1 |  | Case 2 |  | Gase 3 |  |
| Founder | Hyyses |  |  | Chicago/ |  |  |
| Lead Engineer |  |  | Ulysses |  |  |  |
| Marketing Director |  |  |  |  | Hysses |  |
| Financial Manager |  |  | Yara | San Francisco |  |  |
| Product Manager | Quinton |  |  |  |  |  |
| Sales Executive |  |  | Quinton |  |  |  |
| Operations Coordinator |  |  |  | Chicago/ | Quinton |  |
| Trainee | Urie |  | Ulric |  | Urie |  |
| UX Designer |  |  |  |  |  |  |

## Clues:

Penelope is three positions senior to the one who is from Houston. There are four designations between Zara and the one who is from Los Angeles.

## Inference:

From these clues, we get two more possibilities from case 2.

| Designations | Persons | Places | Persons |  | Places | Persons | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 2 |  | Case 2a |  | Case 2b |  |  |
| Founder |  | Chicago/ | Zara | Chicago/ |  | Chicago/ |  |
| Lead <br> Engineer | Ulysses | Los <br> Angeles | Ulysses |  | Ulysses | Los <br> Angeles |  |
| Marketing <br> Director | Penelope |  |  |  |  |  |  |
| Financial <br> Manager | Yara | San <br> Francisco | Yara | San <br> Francisco | Yara | San <br> Francisco |  |
| Product <br> Manager |  | Penelope |  | Penelope |  |  |  |
| Sales <br> Executive | Quinton | Houston | Quinton | Los <br> Angeles | Quinton |  |  |
| Operations <br> Coordinator | Zara | Chicago/ |  | Chicago/ | Zara | Chicago/ |  |
| Trainee | Ulric |  | Ulric | Houston | Ulric | Houston |  |
| UX Designer |  |  |  |  |  |  |  |

## Clues:

As many designations between Zara and Ulric as between the one who is from Denver and Xavier. Quinlan is from New York and four designations Junior to the one who is from Seattle. There is one designation between Phoebe and the one who is from Boston. The one who is from Houston is not just senior to Xavier.

## Inference:

Case 2 a and case 2 b are cancelled here as not satisfying the conditions.

| Designations | Persons | Places | Persens | Places | Persens | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 2 |  | Gase 2a |  | Gase 2b |  |
| Founder | Phoebe | Seattle | Zara | Ghieage |  | Ghicage/ |
| Lead Engineer | Ulysses | Los Angeles | Hysses | Denver | Hysses | Les <br> Angeles |
| Marketing Director | Penelope | Boston | Phobe | Seattle |  |  |
| Financial Manager | Yara | San Francisco | Yara | San Francisce | Yara | San Francisce |
| Product <br> Manager | Quinlan | New York | Penelope | Boston | Penelope |  |
| Sales Executive | Quinton | Houston | Quinton | $\begin{gathered} \text { Les } \\ \text { Angeles } \end{gathered}$ | Quinton |  |
| Operations Coordinator | Zara | Chicago | Quinlan | New York | Zara | Ghieage/ |
| Trainee | Ulric | Denver | Urie | Heuston | Urie | Heuston |
| UX Designer | Xavier |  | Xavier |  |  |  |

## Clue:

Zara is not from Washington.

## Inference:

So, Xavier will be from Washington and the final arrangement is: -

| Designations | Persons | Places |
| :---: | :---: | :---: |
| Founder | Phoebe | Seattle |
| Lead <br> Engineer | Ulysses | Los Angeles |
| Marketing <br> Director | Penelope | Boston |
| Financial <br> Manager | Yara | San <br> Francisco |
| Product <br> Manager | Quinlan | New York |
| Sales <br> Executive | Quinton | Houston |
| Operations <br> Coordinator | Zara | Chicago |
| Trainee | Ulric | Denver |
| UX Designer | Xavier | Washington |

Phoebe is the founder.


## S2. Ans.(b)

Sol.
Final arrangement:

| Designations | Persons | Places |
| :---: | :---: | :---: |
| Founder | Phoebe | Seattle |
| Lead <br> Engineer | Ulysses | Los Angeles |
| Marketing <br> Director | Penelope | Boston |
| Financial <br> Manager | Yara | San <br> Francisco |
| Product <br> Manager | Quinlan | New York |
| Sales <br> Executive | Quinton | Houston |
| Operations <br> Coordinator | Zara | Chicago |
| Trainee | Ulric | Denver |
| UX Designer | Xavier | Washington |

## Clues:

There are three designations between Ulysses and Quinton who is not senior to Ulysses. Ulric is a Trainee. Quinton is not the juniormost employee.

## Inference:

From these clues, we get three possible cases: -

| Designations | Persons | Places | Persons | Places | Persons | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 1 |  | Case 2 |  | Case 3 |  |
| Founder | Ulysses |  |  |  |  |  |
| Lead <br> Engineer |  |  | Ulysses |  |  |  |
| Marketing <br> Director |  |  |  |  | Ulysses |  |
| Financial <br> Manager |  |  |  |  |  |  |
| Product <br> Manager | Quinton |  |  |  |  |  |
| Sales <br> Executive |  |  | Quinton |  |  |  |
| Operations <br> Coordinator |  |  |  |  | Quinton |  |
| Trainee | Ulric |  | Ulric |  | Ulric |  |
| UX Designer |  |  |  |  |  |  |

Clues: The number of persons senior to Quinton is the same as the number of persons junior to Yara who is from San Francisco. There are two designations between Yara and the one who is from Chicago.

## Inference:

Case 1 and case 3 are cancelled here a there is no place for Yara.

| Designations | Persens | Places | Persons | Places | Persens | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gase 1 |  | Case 2 |  | Case 3 |  |
| Founder | Hysses |  |  | Chicago/ |  |  |
| Lead Engineer |  |  | Ulysses |  |  |  |
| Marketing Director |  |  |  |  | Hysses |  |
| Financial Manager |  |  | Yara | San Francisco |  |  |
| Product Manager | Quinton |  |  |  |  |  |
| Sales <br> Executive |  |  | Quinton |  |  |  |
| Operations Coordinator |  |  |  | Chicago/ | Quinton |  |
| Trainee | Urie |  | Ulric |  | Ulic |  |
| UX Designer |  |  |  |  |  |  |

## Clues:

Penelope is three positions senior to the one who is from Houston. There are four designations between Zara and the one who is from Los Angeles.

## Inference:

From these clues, we get two more possibilities from case 2.

| Designations | Persons | Places | Persons | Places | Persons | Places |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 2 |  | Case 2a |  | Case 2b |  |  |
| Founder | Chicago/ |  |  | Zara | Chicago/ |  | Chicago/ |
| Lead <br> Engineer | Ulysses | Los <br> Angeles | Ulysses |  | Ulysses | Los <br> Angeles |  |
| Marketing <br> Director | Penelope |  |  |  |  |  |  |
| Financial <br> Manager | Yara | San <br> Francisco | Yara | San <br> Francisco | Yara | San <br> Francisco |  |
| Product <br> Manager |  | Penelope |  | Penelope |  |  |  |
| Sales <br> Executive | Quinton | Houston | Quinton | Los <br> Angeles | Quinton |  |  |
| Operations <br> Coordinator | Zara | Chicago/ |  | Chicago/ | Zara | Chicago// |  |
| Trainee | Ulric |  | Ulric | Houston | Ulric | Houston |  |
| UX Designer |  |  |  |  |  |  |  |

## Clues:

As many designations between Zara and Ulric as between the one who is from Denver and Xavier. Quinlan is from New York and four designations Junior to the one who is from Seattle. There is one designation between Phoebe and the one who is from Boston. The one who is from Houston is not just senior to Xavier.
Inference:
Case 2 a and case 2 b are cancelled here as not satisfying the conditions.

| Designations | Persons | Places | Persons | Places | Persens | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 2 |  | Gase 2a |  | Gase 2b |  |
| Founder | Phoebe | Seattle | Zara | Chicage |  | Chicagot |
| Lead Engineer | Ulysses | Los Angeles | Hysses | Denver | Hysses | $\begin{gathered} \text { Les } \\ \text { Angeles } \end{gathered}$ |
| Marketing Director | Penelope | Boston | Phobe | Seattle |  |  |
| Financial Manager | Yara | San <br> Francisco | Yara | San Francisce | Yara | San Francisce |
| Product Manager | Quinlan | New York | Penelope | Boston | Penelope |  |
| Sales <br> Executive | Quinton | Houston | Quinton | Les Angeles | Quinton |  |
| Operations Coordinator | Zara | Chicago | Quinlan | New York |  | Ghicagot |
| Trainee | Ulric | Denver | \#rie | Houston | Hrie | Houston |
| UX Designer | Xavier |  | Xavier |  |  |  |

## Clue:

Zara is not from Washington.

## Inference:

So, Xavier will be from Washington and the final arrangement is: -

| Designations | Persons | Places |
| :---: | :---: | :---: |
| Founder | Phoebe | Seattle |
| Lead <br> Engineer | Ulysses | Los Angeles |
| Marketing <br> Director | Penelope | Boston |
| Financial <br> Manager | Yara | San <br> Francisco |
| Product <br> Manager | Quinlan | New York |
| Sales <br> Executive | Quinton | Houston |
| Operations <br> Coordinator | Zara | Chicago |
| Trainee | Ulric | Denver |
| UX Designer | Xavier | Washington |

Xavier is from Washington.

## S3. Ans.(c)

Sol. Final arrangement:

| Designations | Persons | Places |
| :---: | :---: | :---: |
| Founder | Phoebe | Seattle |
| Lead <br> Engineer | Ulysses | Los Angeles |
| Marketing <br> Director | Penelope | Boston |
| Financial <br> Manager | Yara | San <br> Francisco |
| Product <br> Manager | Quinlan | New York |
| Sales <br> Executive | Quinton | Houston |
| Operations <br> Coordinator | Zara | Chicago |
| Trainee | Ulric | Denver |
| UX Designer | Xavier | Washington |

## Clues:

There are three designations between Ulysses and Quinton who is not senior to Ulysses. Ulric is a Trainee. Quinton is not the juniormost employee.

## Inference:

From these clues, we get three possible cases: -

| Designations | Persons | Places | Persons | Places | Persons | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 1 |  | Case 2 |  | Case 3 |  |
| Founder | Ulysses |  |  |  |  |  |
| Lead <br> Engineer |  |  | Ulysses |  |  |  |
| Marketing <br> Director |  |  |  |  | Ulysses |  |
| Financial <br> Manager |  |  |  |  |  |  |
| Product <br> Manager | Quinton |  |  |  |  |  |
| Sales <br> Executive |  |  | Quinton |  |  |  |
| Operations <br> Coordinator |  |  |  |  | Quinton |  |
| Trainee | Ulric |  | Ulric |  | Ulric |  |
| UX Designer |  |  |  |  |  |  |

Clues: The number of persons senior to Quinton is the same as the number of persons junior to Yara who is from San Francisco. There are two designations between Yara and the one who is from Chicago.

## Inference:

Case 1 and case 3 are cancelled here a there is no place for Yara.

| Designations | Persens | Places | Persons | Places | Persens | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gase 4 |  | Case 2 |  | Gase 3 |  |
| Founder | Hysses |  |  | Chicago/ |  |  |
| Lead <br> Engineer |  |  | Ulysses |  |  |  |
| Marketing <br> Director |  |  |  |  | Hysses |  |
| Financial <br> Manager |  |  | Yara | San <br> Francisco |  |  |
| Product <br> Manager | Quinton |  |  |  |  |  |
| Sales <br> Executive |  |  | Quinton |  |  |  |
| Operations <br> Coordinator |  |  |  | Chicago/ | Quinten |  |
| Trainee | Ulric |  | Ulric |  | Hric |  |
| UX Designer |  |  |  |  |  |  |

## Clues:

Penelope is three positions senior to the one who is from Houston. There are four designations between Zara and the one who is from Los Angeles.

## Inference:

From these clues, we get two more possibilities from case 2.

| Designations | Persons | Places | Persons | Places | Persons | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 2 |  | Case 2a |  | Case 2b |  |
| Founder |  | Chicago/ | Zara | Chicago/ |  | Chicago/ |
| Lead <br> Engineer | Ulysses | Los <br> Angeles | Ulysses |  | Ulysses | Los <br> Angeles |
| Marketing <br> Director | Penelope |  |  |  |  |  |
| Financial <br> Manager | Yara | San <br> Francisco | Yara | San <br> Francisco | Yara | San <br> Francisco |
| Product <br> Manager |  |  | Penelope |  | Penelope |  |
| Sales <br> Executive | Quinton | Houston | Quinton | Los <br> Angeles | Quinton |  |
| Operations <br> Coordinator | Zara | Chicago/ |  | Chicago/ | Zara | Chicago/ |
| Trainee | Ulric |  | Ulric | Houston | Ulric | Houston |
| UX Designer |  |  |  |  |  |  |

## Clues:

As many designations between Zara and Ulric as between the one who is from Denver and Xavier. Quinlan is from New York and four designations Junior to the one who is from Seattle. There is one designation between Phoebe and the one who is from Boston. The one who is from Houston is not just senior to Xavier.

## Inference:

Case 2 a and case 2 b are cancelled here as not satisfying the conditions.

| Designations | Persons | Places | Persons | Places | Persens | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 2 |  | Gase 2 a |  | Gase 2b |  |
| Founder | Phoebe | Seattle | Zara | Chicage |  | Chicage |
| Lead Engineer | Ulysses | Los Angeles | Hysses | Denver | Hysses | $\begin{gathered} \text { Los } \\ \text { Angeles } \end{gathered}$ |
| Marketing Director | Penelope | Boston | Phobe | Seattle |  |  |
| Financial <br> Manager | Yara | San <br> Francisco | Yara | San Francisee | Yara | Sam Francisce |
| Product <br> Manager | Quinlan | New York | Penelope | Beston | Penelope |  |
| Sales <br> Executive | Quinton | Houston | Quinton | $\begin{gathered} \text { Los } \\ \text { Angeles } \end{gathered}$ | Quinton |  |
| Operations Coordinator | Zara | Chicago | Quinlan | New York | Zara | Chicagot |
| Trainee | Ulric | Denver | Hrie | Houston | \#rie | Houston |
| UX Designer | Xavier |  | Xavier |  |  |  |

## Clue:

Zara is not from Washington.

## Inference:

So, Xavier will be from Washington and the final arrangement is: -

| Designations | Persons | Places |
| :---: | :---: | :---: |
| Founder | Phoebe | Seattle |
| Lead <br> Engineer | Ulysses | Los Angeles |
| Marketing <br> Director | Penelope | Boston |
| Financial <br> Manager | Yara | San <br> Francisco |
| Product <br> Manager | Quinlan | New York |
| Sales <br> Executive | Quinton | Houston |
| Operations <br> Coordinator | Zara | Chicago |
| Trainee | Ulric | Denver |
| UX Designer | Xavier | Washington |

The one who is from Boston is the Marketing Director.

## S4. Ans.(a)

Sol. Final arrangement:

| Designations | Persons | Places |
| :---: | :---: | :---: |
| Founder | Phoebe | Seattle |
| Lead <br> Engineer | Ulysses | Los Angeles |
| Marketing <br> Director | Penelope | Boston |
| Financial <br> Manager | Yara | San <br> Francisco |
| Product <br> Manager | Quinlan | New York |
| Sales <br> Executive | Quinton | Houston |
| Operations <br> Coordinator | Zara | Chicago |
| Trainee | Ulric | Denver |
| UX Designer | Xavier | Washington |

## Clues:

There are three designations between Ulysses and Quinton who is not senior to Ulysses. Ulric is a Trainee. Quinton is not the juniormost employee.
Inference:
From these clues, we get three possible cases: -

| Designations | Persons | Places | Persons | Places | Persons | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 1 |  | Case 2 |  | Case 3 |  |
| Founder | Ulysses |  |  |  |  |  |
| Lead <br> Engineer |  |  | Ulysses |  |  |  |
| Marketing <br> Director |  |  |  |  | Ulysses |  |
| Financial <br> Manager |  |  |  |  |  |  |
| Product <br> Manager | Quinton |  |  |  |  |  |
| Sales <br> Executive |  |  | Quinton |  |  |  |
| Operations <br> Coordinator |  |  |  |  | Quinton |  |
| Trainee | Ulric |  | Ulric |  | Ulric |  |
| UX Designer |  |  |  |  |  |  |

Clues: The number of persons senior to Quinton is the same as the number of persons junior to Yara who is from San Francisco. There are two designations between Yara and the one who is from Chicago.

## Inference:

Case 1 and case 3 are cancelled here a there is no place for Yara.

| Designations | Persens | Places | Persons |  | Places | Persens | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gase 1 |  | Case 2 |  | Gase 3 |  |  |
| Founder | Hlysses |  |  | Chicago/ |  |  |  |
| Lead <br> Engineer |  |  | Ulysses |  |  |  |  |
| Marketing <br> Director |  |  |  |  | Hlysses |  |  |
| Financial <br> Manager |  |  | Yara | San <br> Francisco |  |  |  |
| Product <br> Manager | Quinton |  |  |  |  |  |  |
| Sales <br> Executive |  |  | Quinton |  |  |  |  |
| Operations <br> Coordinator |  |  |  | Chicago/ | Quinton |  |  |
| Trainee | Hlrie |  | Ulric |  | Ulrie |  |  |
| UX Designer |  |  |  |  |  |  |  |

## Clues:

Penelope is three positions senior to the one who is from Houston. There are four designations between Zara and the one who is from Los Angeles.

## Inference:

From these clues, we get two more possibilities from case 2.

| Designations | Persons | Places | Persons | Places | Persons | Places |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 2 |  | Case 2a |  | Case 2b |  |  |
| Founder | Chicago/ |  |  |  |  |  |  |
| Zara | Chicago/ | Chicago/ |  |  |  |  |  |
| Lead <br> Engineer | Ulysses | Los <br> Angeles | Ulysses |  | Ulysses | Los <br> Angeles |  |
| Marketing <br> Director | Penelope |  |  |  |  |  |  |
| Financial <br> Manager | Yara | San <br> Francisco | Yara | San <br> Francisco | Yara | San <br> Francisco |  |
| Product <br> Manager |  | Penelope |  | Penelope |  |  |  |
| Sales <br> Executive | Quinton | Houston | Quinton | Los <br> Angeles | Quinton |  |  |
| Operations <br> Coordinator | Zara | Chicago/ |  | Chicago/ | Zara | Chicago/ |  |
| Trainee | Ulric |  | Ulric | Houston | Ulric | Houston |  |
| UX Designer |  |  |  |  |  |  |  |

## Clues:

As many designations between Zara and Ulric as between the one who is from Denver and Xavier. Quinlan is from New York and four designations Junior to the one who is from Seattle. There is one designation between Phoebe and the one who is from Boston. The one who is from Houston is not just senior to Xavier.

## Inference:

Case 2 a and case 2 b are cancelled here as not satisfying the conditions.

| Designations | Persons | Places | Persens | Places | Persens | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 2 |  | Gase 2a |  | Gase 2b |  |
| Founder | Phoebe | Seattle | Zara | Chieage |  | Ghicago/ |
| Lead Engineer | Ulysses | Los Angeles | Hysses | Denver | Hysses | Les <br> Angeles |
| Marketing Director | Penelope | Boston | Phobe | Seattle |  |  |
| Financial Manager | Yara | San Francisco | Yara | San Francisce | Yara | San Francisce |
| Product <br> Manager | Quinlan | New York | Penelope | Beston | Penelope |  |
| Sales Executive | Quinton | Houston | Quinton | $\begin{gathered} \text { Los } \\ \text { Angeles } \end{gathered}$ | Quinton |  |
| Operations Coordinator | Zara | Chicago | Quinlan | New York | Zara | Ghienge/ |
| Trainee | Ulric | Denver | Urie | Houston | Urie | Houston |
| UX Designer | Xavier |  | Xavier |  |  |  |

## Clue:

Zara is not from Washington.

## Inference:

So, Xavier will be from Washington and the final arrangement is: -

| Designations | Persons | Places |
| :---: | :---: | :---: |
| Founder | Phoebe | Seattle |
| Lead <br> Engineer | Ulysses | Los Angeles |
| Marketing <br> Director | Penelope | Boston |
| Financial <br> Manager | Yara | San <br> Francisco |
| Product <br> Manager | Quinlan | New York |
| Sales <br> Executive | Quinton | Houston |
| Operations <br> Coordinator | Zara | Chicago |
| Trainee | Ulric | Denver |
| UX Designer | Xavier | Washington |



There are seven designations between the one who is from Seattle and Xavier.

## S5. Ans.(d)

## Sol. Final arrangement:

| Designations | Persons | Places |
| :---: | :---: | :---: |
| Founder | Phoebe | Seattle |
| Lead <br> Engineer | Ulysses | Los Angeles |
| Marketing <br> Director | Penelope | Boston |
| Financial <br> Manager | Yara | San <br> Francisco |
| Product <br> Manager | Quinlan | New York |
| Sales <br> Executive | Quinton | Houston |
| Operations <br> Coordinator | Zara | Chicago |
| Trainee | Ulric | Denver |
| UX Designer | Xavier | Washington |

## Clues:

There are three designations between Ulysses and Quinton who is not senior to Ulysses. Ulric is a Trainee. Quinton is not the juniormost employee.

## Inference:

From these clues, we get three possible cases: -

| Designations | Persons | Places | Persons | Places | Persons | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 1 |  | Case 2 |  | Case 3 |  |
| Founder | Ulysses |  |  |  |  |  |
| Lead <br> Engineer |  |  | Ulysses |  |  |  |
| Marketing <br> Director |  |  |  |  | Ulysses |  |
| Financial <br> Manager |  |  |  |  |  |  |
| Product <br> Manager | Quinton |  |  |  |  |  |
| Sales <br> Executive |  |  | Quinton |  |  |  |
| Operations <br> Coordinator |  |  |  |  | Quinton |  |
| Trainee | Ulric |  | Ulric |  | Ulric |  |
| UX Designer |  |  |  |  |  |  |

Clues: The number of persons senior to Quinton is the same as the number of persons junior to Yara who is from San Francisco. There are two designations between Yara and the one who is from Chicago.

## Inference:

Case 1 and case 3 are cancelled here a there is no place for Yara.

| Designations | Persens | Places | Persons | Places | Persens | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gase 1 |  | Case 2 |  | Case 3 |  |
| Founder | Hysses |  |  | Chicago/ |  |  |
| Lead Engineer |  |  | Ulysses |  |  |  |
| Marketing Director |  |  |  |  | Hysses |  |
| Financial Manager |  |  | Yara | San Francisco |  |  |
| Product Manager | Quinton |  |  |  |  |  |
| Sales <br> Executive |  |  | Quinton |  |  |  |
| Operations Coordinator |  |  |  | Chicago/ | Quinton |  |
| Trainee | Urie |  | Ulric |  | Ulic |  |
| UX Designer |  |  |  |  |  |  |

## Clues:

Penelope is three positions senior to the one who is from Houston. There are four designations between Zara and the one who is from Los Angeles.

## Inference:

From these clues, we get two more possibilities from case 2.

| Designations | Persons | Places | Persons |  | Places | Persons | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 2 |  | Case 2a |  | Case 2b |  |  |
| Founder |  | Chicago/ | Zara | Chicago/ |  | Chicago/ |  |
| Lead <br> Engineer | Ulysses | Los <br> Angeles | Ulysses |  | Ulysses | Los <br> Angeles |  |
| Marketing <br> Director | Penelope |  |  |  |  |  |  |
| Financial <br> Manager | Yara | San <br> Francisco | Yara | San <br> Francisco | Yara | San <br> Francisco |  |
| Product <br> Manager | Penelope |  | Penelope |  |  |  |  |
| Sales <br> Executive | Quinton | Houston | Quinton | Los <br> Angeles | Quinton |  |  |
| Operations <br> Coordinator | Zara | Chicago/ |  | Chicago/ | Zara | Chicago/ |  |
| Trainee | Ulric |  | Ulric | Houston | Ulric | Houston |  |
| UX Designer |  |  |  |  |  |  |  |

## Clues:

As many designations between Zara and Ulric as between the one who is from Denver and Xavier. Quinlan is from New York and four designations Junior to the one who is from Seattle. There is one designation between Phoebe and the one who is from Boston. The one who is from Houston is not just senior to Xavier.
Inference:
Case 2 a and case 2 b are cancelled here as not satisfying the conditions.

| Designations | Persons | Places | Persons | Places | Persens | Places |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Case 2 |  | Gase 2a |  | Gase 2b |  |
| Founder | Phoebe | Seattle | Zara | Chicage |  | Ghicagot |
| Lead Engineer | Ulysses | Los Angeles | Hysses | Denver | Hysses | $\begin{gathered} \text { Los } \\ \text { Angeles } \\ \hline \end{gathered}$ |
| Marketing Director | Penelope | Boston | Phobe | Seattle |  |  |
| Financial Manager | Yara | San <br> Francisco | Yara | San Francisee | Yara | San Francisee |
| Product Manager | Quinlan | New York | Penelope | Boston | Penelope |  |
| Sales <br> Executive | Quinton | Houston | Quinton | $\begin{gathered} \text { Los } \\ \text { Angeles } \end{gathered}$ | Quinton |  |
| Operations Coordinator | Zara | Chicago | Quinlan | New York |  | Chicagot |
| Trainee | Ulric | Denver | Hrie | Houston | Uric | Houston |
| UX Designer | Xavier |  | Xavier |  |  |  |

## Clue:

Zara is not from Washington.

## Inference:

So, Xavier will be from Washington and the final arrangement is: -

| Designations | Persons | Places |
| :---: | :---: | :---: |
| Founder | Phoebe | Seattle |
| Lead <br> Engineer | Ulysses | Los Angeles |
| Marketing <br> Director | Penelope | Boston |
| Financial <br> Manager | Yara | San <br> Francisco |
| Product <br> Manager | Quinlan | New York |
| Sales <br> Executive | Quinton | Houston |
| Operations <br> Coordinator | Zara | Chicago |
| Trainee | Ulric | Denver |
| UX Designer | Xavier | Washington |

"Quinlan - Product Manager" is the correct combination.

## S6. Ans.(c)

Sol. III. Doesn't follow: As there is no direct relation between A and C. So, any definite relation doesn't follow.


## S7. Ans.(a)

Sol. V. Doesn't follow: As there is no direct relation between A and C. So, any definite relation doesn't follow.


## S8. Ans.(a)

Sol. II. Doesn't follow: Item is restricted for relation with anyone. So, any relation of Item with anyone doesn't follow.


## S9. Ans.(c)

Sol. III. Doesn't follow - As there is no direct relation between Ice and Fevicol. So, any definite relation doesn't follow.


## Sol. Final arrangement:

| Shelves | Box | Colour | Cities |
| :---: | :---: | :---: | :---: |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| 6th $_{\text {th }}$ | A | Brown | Bhopal |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ | Z | Blue | Mumbai |

Clues: The box which will be delivered in Gurugram and the Blue coloured box are kept in odd-numbered shelves. The Purple coloured box is kept three shelves above the Blue coloured box. The box which will be delivered in Mysore is kept just above the Purple coloured box. The box which will be delivered in Gurugram is neither kept in the first shelf nor adjacent to the Purple coloured box.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.

|  | Case 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shelves | Box | Colour | Cities | Box | Colour | Cities |
| $8^{\text {th }}$ |  |  |  |  |  |  |
| $7^{\text {th }}$ |  |  | Mysore |  |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  |  |  |  |
| $5^{\text {th }}$ |  |  |  |  |  | Mysore |
| $4^{\text {th }}$ |  |  |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gurugram |  |  |  |
| $2^{\text {nd }}$ |  |  |  |  |  |  |
| $1^{\text {st }}$ |  |  |  |  | Blue |  |

Clues: The Black coloured box will be delivered in Patna. The difference between the shelf number of Black coloured box and the box which will be delivered in Mysore is equal to the shelf number of Box Y. Black coloured box is neither kept adjacent to the box which will be delivered in Gurugram nor to the Blue coloured Box. Box Y is not kept in the bottommost shelf. The colour of Box Y is Orange.
Inference: From the above conditions it is clear that the Box $Y$ is kept in the second shelf.

| Shelves | Case 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Box | Colour | Cities | Box | Colour | Cities |
| $8^{\text {th }}$ |  |  |  |  |  |  |
| $7^{\text {th }}$ |  |  | Mysore |  |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  |  |  |  |
| $5^{\text {th }}$ |  | Black | Patna |  |  | Mysore |
| $4^{\text {th }}$ |  |  |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gurugram |  | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange |  | Y | Orange |  |
| $1^{\text {st }}$ |  |  |  |  | Blue |  |

Clues: The average of the shelf number of Green coloured box and Box A is equal to the shelf number of Box D. Box D is neither kept in an even-numbered shelf nor it will be delivered in Patna. The Green coloured box is kept above the box which will be delivered in Gurugram. The box which will be delivered in Mumbai is kept four boxes below the box which will be delivered in Mysore.
Inference: From the above condition Case 1 is cancelled here as it does not satisfy the conditions given above.

| Shelves | Gase 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Box | Golour | Gities | Box | Colour | Cities |
| $8^{\text {th }}$ |  | Greent |  |  | Green |  |
| $7^{\text {th }}$ |  | Greent | Mysore | D |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  | A |  |  |
| $5^{\text {th }}$ |  | Black | Patna |  |  | Mysore |
| $4^{\text {th }}$ |  | Greent |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gurugram |  | Black | Patna |
| $2^{\text {nd }}$ | $Y$ | Orange |  | Y | Orange |  |
| $1^{\text {st }}$ |  |  |  |  | Blue | Mumbai |

Clues: The colour of Box X is white. The box kept just above the Box X is not of Red colour. Box C which will be delivered to Ranchi. The shelf number of the box which will be delivered to Ranchi is the square of a number. Box B which will be delivered in Panji. Box A will not be delivered in Delhi. Box C and Box W are kept adjacent to each other. Inference: From the above conditions it is clear that Box W is of Black colour.

|  | Case 2 |  |  |
| :---: | :---: | :---: | :---: |
| Shelves | Box | Colour | Cities |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A |  |  |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ |  | Blue | Mumbai |

Inference: Only one Box remains i.e., Z, one colour remains i.e., Brown and only one City remains i.e., Bhopal. So, the Final arrangement is:

| Shelves | Box | Colour | Cities |
| :---: | :---: | :---: | :---: |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A | Brown | Bhopal |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ | Z | Blue | Mumbai |

Green coloured box will be delivered in Panji

## S11. Ans.(c)

Sol.
Final arrangement:

| Shelves | Box | Colour | Cities |
| :---: | :---: | :---: | :---: |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A | Brown | Bhopal |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ | Z | Blue | Mumbai |

Clues: The box which will be delivered in Gurugram and the Blue coloured box are kept in odd-numbered shelves. The Purple coloured box is kept three shelves above the Blue coloured box. The box which will be delivered in Mysore is kept just above the Purple coloured box. The box which will be delivered in Gurugram is neither kept in the first shelf nor adjacent to the Purple coloured box.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.

| Shelves | Case 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Box | Colour | Cities | Box | Colour | Cities |
| $8^{\text {th }}$ |  |  |  |  |  |  |
| $7^{\text {th }}$ |  |  | Mysore |  |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  |  |  |  |
| $5^{\text {th }}$ |  |  |  |  |  | Mysore |
| $4^{\text {th }}$ |  |  |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gurugram |  |  |  |
| $2^{\text {nd }}$ |  |  |  |  |  |  |
| $1^{\text {st }}$ |  |  |  |  | Blue |  |

Clues: The Black coloured box will be delivered in Patna. The difference between the shelf number of Black coloured box and the box which will be delivered in Mysore is equal to the shelf number of Box Y. Black coloured box is neither kept adjacent to the box which will be delivered in Gurugram nor to the Blue coloured Box. Box Y is not kept in the bottommost shelf. The colour of Box Y is Orange.

Inference: From the above conditions it is clear that the Box Y is kept in the second shelf.

| Shelves | Case 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Box | Colour | Cities | Box | Colour | Cities |
| $8^{\text {th }}$ |  |  |  |  |  |  |
| $7^{\text {th }}$ |  |  | Mysore |  |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  |  |  |  |
| $5^{\text {th }}$ |  | Black | Patna |  |  | Mysore |
| $4^{\text {th }}$ |  |  |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gurugram |  | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange |  | Y | Orange |  |
| $1^{\text {st }}$ |  |  |  |  | Blue |  |

Clues: The average of the shelf number of Green coloured box and Box A is equal to the shelf number of Box D. Box D is neither kept in an even-numbered shelf nor it will be delivered in Patna. The Green coloured box is kept above the box which will be delivered in Gurugram. The box which will be delivered in Mumbai is kept four boxes below the box which will be delivered in Mysore.

Inference: From the above condition Case 1 is cancelled here as it does not satisfy the conditions given above.

| Shelves | Gase 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bex | Geleur | Gities | Box | Colour | Cities |
|  |  | Green $/$ |  |  | Green |  |
| $7^{\text {th }}$ |  | Green $/$ | Mysore | D |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  | A |  |  |
| $5^{\text {th }}$ |  | Black | Patna |  |  | Mysore |
| $4^{\text {th }}$ |  | Green $/$ |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gtrugram |  | Black | Patna |
| $2^{\text {nd }}$ | $Y$ | Orange |  | Y | Orange |  |
| $1^{\text {st }}$ |  |  |  |  | Blue | Mumbai |

Clues: The colour of Box X is white. The box kept just above the Box X is not of Red colour. Box C which will be delivered to Ranchi. The shelf number of the box which will be delivered to Ranchi is the square of a number. Box B which will be delivered in Panji. Box A will not be delivered in Delhi. Box C and Box W are kept adjacent to each other.

Inference: From the above conditions it is clear that Box W is of Black colour.

| Shelves | Case 2 |  |  |
| :---: | :---: | :---: | :---: |
|  | Box | Colour | Cities |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A |  |  |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ |  | Blue | Mumbai |

Inference: Only one Box remains i.e., Z, one colour remains i.e., Brown and only one City remains i.e., Bhopal. So, the Final arrangement is:

| Shelves | Box | Colour | Cities |
| :---: | :---: | :---: | :---: |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A | Brown | Bhopal |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ | Z | Blue | Mumbai |

Box $C$ is placed just below the White coloured box

## S12. Ans.(b)

## Sol. Final arrangement:

| Shelves | Box | Colour | Cities |
| :---: | :---: | :---: | :---: |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A | Brown | Bhopal |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ | Z | Blue | Mumbai |

Clues: The box which will be delivered in Gurugram and the Blue coloured box are kept in odd-numbered shelves. The Purple coloured box is kept three shelves above the Blue coloured box. The box which will be delivered in Mysore is kept just above the Purple coloured box. The box which will be delivered in Gurugram is neither kept in the first shelf nor adjacent to the Purple coloured box.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.

|  | Case 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shelves | Colour | Cities | Box | Colour | Cities |
| $8^{\text {th }}$ |  |  |  |  |  |  |
| $7^{\text {th }}$ |  |  | Mysore |  |  |  |
| $6^{\text {th }}$ |  | Purple |  |  |  | Gurugram |
| $5^{\text {th }}$ |  |  |  |  |  |  |
| $4^{\text {th }}$ |  |  |  |  |  | Purple |
| $3^{\text {rd }}$ |  | Blue | Gurugram |  |  |  |
| $2^{\text {nd }}$ |  |  |  |  |  |  |
| $1^{\text {st }}$ |  |  |  |  | Blue |  |

Clues: The Black coloured box will be delivered in Patna. The difference between the shelf number of Black coloured box and the box which will be delivered in Mysore is equal to the shelf number of Box Y. Black coloured box is neither kept adjacent to the box which will be delivered in Gurugram nor to the Blue coloured Box. Box Y is not kept in the bottommost shelf. The colour of Box Y is Orange.
Inference: From the above conditions it is clear that the Box Y is kept in the second shelf.

|  | Case 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shelves | Box | Colour | Cities | Box | Colour | Cities |
| $8^{\text {th }}$ |  |  |  |  |  |  |
| $7^{\text {th }}$ |  |  | Mysore |  |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  |  |  |  |
| $5^{\text {th }}$ |  | Black | Patna |  |  | Mysore |
| $4^{\text {th }}$ |  |  |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gurugram |  | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange |  | Y | Orange |  |
| $1^{\text {st }}$ |  |  |  |  | Blue |  |

Clues: The average of the shelf number of Green coloured box and Box A is equal to the shelf number of Box D. Box D is neither kept in an even-numbered shelf nor it will be delivered in Patna. The Green coloured box is kept above the box which will be delivered in Gurugram. The box which will be delivered in Mumbai is kept four boxes below the box which will be delivered in Mysore.
Inference: From the above condition Case 1 is cancelled here as it does not satisfy the conditions given above.

| Shelves | Gase 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bex | Golour | Gities | Box | Colour | Cities |
| $8^{\text {th }}$ |  | Green/ |  |  | Green |  |
| 7th |  | Green+ | Mysore | D |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  | A |  |  |
| 5 th |  | Black | Patna |  |  | Mysore |
| $4^{\text {th }}$ |  | Green/ |  |  | Purple |  |
| $3{ }^{\text {rd }}$ |  | Blue | Gturugram |  | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange |  | Y | Orange |  |
| $1{ }^{\text {st }}$ |  |  |  |  | Blue | Mumbai |

Clues: The colour of Box X is white. The box kept just above the Box X is not of Red colour. Box C which will be delivered to Ranchi. The shelf number of the box which will be delivered to Ranchi is the square of a number. Box B which will be delivered in Panji. Box A will not be delivered in Delhi. Box C and Box W are kept adjacent to each other. Inference: From the above conditions it is clear that Box W is of Black colour.

|  | Case 2 |  |  |
| :---: | :---: | :---: | :---: |
| Shelves | Box | Colour | Cities |
| 8 $^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| 6 $^{\text {th }}$ | A |  |  |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| 3 $^{\text {rd }}$ | W | Black | Patna |
| 2 $_{\text {nd }}$ | Y | Orange | Delhi |
| 1 $^{\text {st }}$ |  | Blue | Mumbai |

Inference: Only one Box remains i.e., Z , one colour remains i.e., Brown and only one City remains i.e., Bhopal. So, the Final arrangement is:

| Shelves | Box | Colour | Cities |
| :---: | :---: | :---: | :---: |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A | Brown | Bhopal |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ | Z | Blue | Mumbai |

Box W is kept in the third shelf
S13. Ans. (e)
Sol. Final arrangement:

| Shelves | Box | Colour | Cities |
| :---: | :---: | :---: | :---: |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A | Brown | Bhopal |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ | Z | Blue | Mumbai |

Clues: The box which will be delivered in Gurugram and the Blue coloured box are kept in odd-numbered shelves. The Purple coloured box is kept three shelves above the Blue coloured box. The box which will be delivered in Mysore is kept just above the Purple coloured box. The box which will be delivered in Gurugram is neither kept in the first shelf nor adjacent to the Purple coloured box.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.

| Shelves | Case 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Box | Colour | Cities | Box | Colour | Cities |
| $8^{\text {th }}$ |  |  |  |  |  |  |
| $7^{\text {th }}$ |  |  | Mysore |  |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  |  |  |  |
| $5^{\text {th }}$ |  |  |  |  |  | Mysore |
| $4^{\text {th }}$ |  |  |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gurugram |  |  |  |
| $2^{\text {nd }}$ |  |  |  |  |  |  |
| $1^{\text {st }}$ |  |  |  |  | Blue |  |

Clues: The Black coloured box will be delivered in Patna. The difference between the shelf number of Black coloured box and the box which will be delivered in Mysore is equal to the shelf number of Box Y. Black coloured box is neither kept adjacent to the box which will be delivered in Gurugram nor to the Blue coloured Box. Box Y is not kept in the bottommost shelf. The colour of Box Y is Orange.
Inference: From the above conditions it is clear that the Box Y is kept in the second shelf.

|  | Case 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shelves | Box | Colour | Cities | Box | Colour | Cities |
| $8^{\text {th }}$ |  |  |  |  |  |  |
| $7^{\text {th }}$ |  |  | Mysore |  |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  |  |  |  |
| $5^{\text {th }}$ |  | Black | Patna |  |  | Mysore |
| $4^{\text {th }}$ |  |  |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gurugram |  | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange |  | Y | Orange |  |
| $1^{\text {st }}$ |  |  |  |  | Blue |  |

Clues: The average of the shelf number of Green coloured box and Box A is equal to the shelf number of Box D. Box D is neither kept in an even-numbered shelf nor it will be delivered in Patna. The Green coloured box is kept above the box which will be delivered in Gurugram. The box which will be delivered in Mumbai is kept four boxes below the box which will be delivered in Mysore.
Inference: From the above condition Case 1 is cancelled here as it does not satisfy the conditions given above.

| Shelves | Gase 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Вох | Colotr | Gities | Box | Colour | Cities |
| $8^{\text {th }}$ |  | Green/ |  |  | Green |  |
| $7{ }^{\text {th }}$ |  | Greent | Mysore | D |  | Gurugram |
| $6^{\text {th }}$ |  | Pumple |  | A |  |  |
| $5^{\text {th }}$ |  | Black | Patna |  |  | Mysore |
| $4^{\text {th }}$ |  | Green 1 |  |  | Purple |  |
| $3{ }^{\text {rd }}$ |  | Blue | Gurugram |  | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange |  | Y | Orange |  |
| $1{ }^{\text {st }}$ |  |  |  |  | Blue | Mumbai |

Clues: The colour of Box X is white. The box kept just above the Box X is not of Red colour. Box C which will be delivered to Ranchi. The shelf number of the box which will be delivered to Ranchi is the square of a number. Box B which will be delivered in Panji. Box A will not be delivered in Delhi. Box C and Box W are kept adjacent to each other. Inference: From the above conditions it is clear that Box W is of Black colour.

| Shelves | Case 2 |  |  |
| :---: | :---: | :---: | :---: |
|  | Box | Colour | Cities |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A |  |  |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ |  | Blue | Mumbai |

Inference: Only one Box remains i.e., Z, one colour remains i.e., Brown and only one City remains i.e., Bhopal. So, the Final arrangement is:

| Shelves | Box | Colour | Cities |
| :---: | :---: | :---: | :---: |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| 6th $_{\text {th }}$ | A | Brown | Bhopal |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| 1 $^{\text {st }}$ | Z | Blue | Mumbai |

All combinations are true.

## S14. Ans.(c)

## Sol. Final arrangement:

| Shelves | Box | Colour | Cities |
| :---: | :---: | :---: | :---: |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A | Brown | Bhopal |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ | Z | Blue | Mumbai |

Clues: The box which will be delivered in Gurugram and the Blue coloured box are kept in odd-numbered shelves. The Purple coloured box is kept three shelves above the Blue coloured box. The box which will be delivered in Mysore is kept just above the Purple coloured box. The box which will be delivered in Gurugram is neither kept in the first shelf nor adjacent to the Purple coloured box.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.

| Shelves | Case 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Box | Colour | Cities | Box | Colour | Cities |
| $8^{\text {th }}$ |  |  |  |  |  |  |
| $7^{\text {th }}$ |  |  | Mysore |  |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  |  |  |  |
| $5^{\text {th }}$ |  |  |  |  |  | Mysore |
| $4^{\text {th }}$ |  |  |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gurugram |  |  |  |
| $2^{\text {nd }}$ |  |  |  |  |  |  |
| $1^{\text {st }}$ |  |  |  |  | Blue |  |

Clues: The Black coloured box will be delivered in Patna. The difference between the shelf number of Black coloured box and the box which will be delivered in Mysore is equal to the shelf number of Box Y. Black coloured box is neither kept adjacent to the box which will be delivered in Gurugram nor to the Blue coloured Box. Box Y is not kept in the bottommost shelf. The colour of Box Y is Orange.
Inference: From the above conditions it is clear that the Box Y is kept in the second shelf.

|  | Case 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shelves | Box | Colour | Cities | Box | Colour | Cities |
| $8^{\text {th }}$ |  |  |  |  |  |  |
| $7^{\text {th }}$ |  |  | Mysore |  |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  |  |  |  |
| $5^{\text {th }}$ |  | Black | Patna |  |  | Mysore |
| $4^{\text {th }}$ |  |  |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gurugram |  | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange |  | Y | Orange |  |
| $1^{\text {st }}$ |  |  |  |  | Blue |  |

Clues: The average of the shelf number of Green coloured box and Box A is equal to the shelf number of Box D. Box D is neither kept in an even-numbered shelf nor it will be delivered in Patna. The Green coloured box is kept above the box which will be delivered in Gurugram. The box which will be delivered in Mumbai is kept four boxes below the box which will be delivered in Mysore.
Inference: From the above condition Case 1 is cancelled here as it does not satisfy the conditions given above.

| Shelves | Gase 1 |  |  | Case 2 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bex | Gelour | Gities | Box | Colour | Cities |
| $8^{\text {th }}$ |  | Greent |  |  | Green |  |
| $7^{\text {th }}$ |  | Greent | Mysore | D |  | Gurugram |
| $6^{\text {th }}$ |  | Purple |  | A |  |  |
| $5^{\text {th }}$ |  | Black | Patna |  |  | Mysore |
| $4^{\text {th }}$ |  | Green $\gamma$ |  |  | Purple |  |
| $3^{\text {rd }}$ |  | Blue | Gtrugram |  | Black | Patna |
| $2^{\text {nd }}$ | $Y$ | Orange |  | Y | Orange |  |
| $1^{\text {st }}$ |  |  |  |  | Blue | Mumbai |

Clues: The colour of Box X is white. The box kept just above the Box X is not of Red colour. Box C which will be delivered to Ranchi. The shelf number of the box which will be delivered to Ranchi is the square of a number. Box B which will be delivered in Panji. Box A will not be delivered in Delhi. Box C and Box W are kept adjacent to each other.
Inference: From the above conditions it is clear that Box W is of Black colour.

|  | Case 2 |  |  |
| :---: | :---: | :---: | :---: |
| Shelves | Box | Colour | Cities |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A |  |  |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ |  | Blue | Mumbai |



Inference: Only one Box remains i.e., Z , one colour remains i.e., Brown and only one City remains i.e., Bhopal. So, the Final arrangement is:

| Shelves | Box | Colour | Cities |
| :---: | :---: | :---: | :---: |
| $8^{\text {th }}$ | B | Green | Panji |
| $7^{\text {th }}$ | D | Red | Gurugram |
| $6^{\text {th }}$ | A | Brown | Bhopal |
| $5^{\text {th }}$ | X | White | Mysore |
| $4^{\text {th }}$ | C | Purple | Ranchi |
| $3^{\text {rd }}$ | W | Black | Patna |
| $2^{\text {nd }}$ | Y | Orange | Delhi |
| $1^{\text {st }}$ | Z | Blue | Mumbai |

Box W will be delivered in Patna

## S15. Ans.(b)

## Sol. The following logic is applied in each step.

Step I: Prime digits are arranged first in ascending order from left to right then non-prime digits are arranged in ascending order from left to right after the prime digits in all numbers.
Step II: Digits within the numbers are arranged in descending order from left to right.
Step III: First take the addition of the alternate digits then write the multiplication of the resultant addition.
Step IV: 1 is subtracted from the square of the digit sum.
Step V: 13 is added to all the numbers.
Step VI: Sum of the $1^{\text {st }}$ and $2^{\text {nd }}$ numbers; $3^{\text {rd }}$ and $4^{\text {th }}$ numbers and $5^{\text {th }}$ and $6^{\text {th }}$ numbers.

| Input: $\mathbf{7 2 6 3 8 3}$ | $\mathbf{8 4 7 6 9 2}$ | $\mathbf{4 3 6 2 8 5}$ | $\mathbf{7 3 6 6 5}$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Step I: 233768 | 274689 | 235468 | 235766 |  |  |
| Step II: 876332 | 987642 | 865432 | 76653 |  |  |
| Step III: 204 | 320 | 192 | 208 | 150 |  |
| Step IV: 35 | 24 | 143 | 99 | 35 | 143 |
| Step V: 48 | 37 | 156 | 112 | 48 | 156 |
| Step VI: 85 | 268 | 204 |  |  |  |

The number that is 3rd from the left end in Step III = 192
So, the digit sum $=12$

## S16. Ans.(e)

Sol.

## The following logic is applied in each step.

Step I: Prime digits are arranged first in ascending order from left to right then non-prime digits are arranged in ascending order from left to right after the prime digits in all numbers.
Step II: Digits within the numbers are arranged in descending order from left to right.
Step III: First take the addition of the alternate digits then write the multiplication of the resultant addition.
Step IV: 1 is subtracted from the square of the digit sum.
Step V: 13 is added to all the numbers.
Step VI: Sum of the $1^{\text {st }}$ and $2^{\text {nd }}$ numbers; $3^{\text {rd }}$ and $4^{\text {th }}$ numbers and $5^{\text {th }}$ and $6^{\text {th }}$ numbers.

| Input: 726383 | $\mathbf{8 4 7 6 9 2}$ | $\mathbf{4 3 6 2 8 5}$ | $\mathbf{7 3 6 6 5}$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Step I: 233768 | 274689 | 235468 | 235766 |  |  |
| Step II: 876332 | 987642 | 865432 | 76653 |  |  |
| Step III: 204 | 320 | 192 | 208 | 150 |  |
| Step IV: 35 | 24 | 143 | 99 | 35 | 143 |
| Step V: 48 | 37 | 156 | 112 | 48 | 156 |
| Step VI: 85 | 268 | 204 |  |  |  |

" 274689 " number in step I of the input has the $2^{\text {nd }}$ highest digit sum i.e., 36 .

## S17. Ans.(d)

Sol.

## The following logic is applied in each step.

Step I: Prime digits are arranged first in ascending order from left to right then non-prime digits are arranged in ascending order from left to right after the prime digits in all numbers.
Step II: Digits within the numbers are arranged in descending order from left to right.
Step III: First take the addition of the alternate digits then write the multiplication of the resultant addition.
Step IV: 1 is subtracted from the square of the digit sum.
Step V: 13 is added to all the numbers.
Step VI: Sum of the $1^{\text {st }}$ and $2^{\text {nd }}$ numbers; $3^{\text {rd }}$ and $4^{\text {th }}$ numbers and $5^{\text {th }}$ and $6^{\text {th }}$ numbers.

Input: 726383847692436285736652292345526897
Step I: $233768 \quad 274689 \quad 235468 \quad 235766 \quad 223549 \quad 257689$
Step II: 876332987642865432766532954322987652
Step III: $204 \quad 320 \quad 192 \quad 208 \quad 150 \quad 336$
Step IV: $35 \quad 24 \quad 143 \quad 99 \quad 35 \quad 143$
Step V: $48 \quad 37 \quad 156$
Step VI: 85268204
" 235468 " will be 4th from the right end, If the numbers in step I are arranged in ascending order from left to right.

## S18. Ans.(b)

Sol.

## The following logic is applied in each step.

Step I: Prime digits are arranged first in ascending order from left to right then non-prime digits are arranged in ascending order from left to right after the prime digits in all numbers.
Step II: Digits within the numbers are arranged in descending order from left to right.
Step III: First take the addition of the alternate digits then write the multiplication of the resultant addition.
Step IV: 1 is subtracted from the square of the digit sum.
Step V: 13 is added to all the numbers.
Step VI: Sum of the $1^{\text {st }}$ and $2^{\text {nd }}$ numbers; $3^{\text {rd }}$ and $4^{\text {th }}$ numbers and $5^{\text {th }}$ and $6^{\text {th }}$ numbers.

| Input: $\mathbf{7 2 6 3 8 3}$ | $\mathbf{8 4 7 6 9 2}$ | $\mathbf{4 3 6 2 8 5}$ | $\mathbf{7 3 6 6 5 2}$ | $\mathbf{2 9}$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Step I: 233768 | 274689 | 235468 | 235766 | 223 |  |  |
| Step II: 876332 | 987642 | 865432 | 766532 | 95 |  |  |
| Step III: 204 | 320 | 192 | 208 | 150 | 336 |  |
| Step IV: 35 | 24 | 143 | 99 | 35 | 143 |  |
| Step V: 48 | 37 | 156 | 112 | 48 | 156 |  |
| Step VI: 85 | 268 | 204 |  |  |  |  |

Numbers that are $2^{\text {nd }}$ from the left end in Step III and Step IV are 320 and 24 respectively.
So, the required difference $=296$

## S19. Ans.(c)

Sol.

## The following logic is applied in each step.

Step I: Prime digits are arranged first in ascending order from left to right then non-prime digits are arranged in ascending order from left to right after the prime digits in all numbers.
Step II: Digits within the numbers are arranged in descending order from left to right.
Step III: First take the addition of the alternate digits then write the multiplication of the resultant addition.
Step IV: 1 is subtracted from the square of the digit sum.
Step V: 13 is added to all the numbers.
Step VI: Sum of the $1^{\text {st }}$ and $2^{\text {nd }}$ numbers; $3^{\text {rd }}$ and $4^{\text {th }}$ numbers and $5^{\text {th }}$ and $6^{\text {th }}$ numbers.
Input: 726383847692436285736652292345526897
Step I: $233768274689235468 \quad 235766$
Step II: 876332987642865432766532954322987652
Step III: $204 \quad 320 \quad 192 \quad 208 \quad 150 \quad 336$
Step IV: $35 \quad 24 \quad 143$
Step V: $48 \quad 37 \quad 156 \quad 112 \quad 48 \quad 156$
Step VI: 85268204
Five numbers are divisible by 2 in step V .

S20. Ans.(d)
Sol. Final arrangement:


## Clues:

Meera is married to Arjun and they have a daughter who is 12 years old. Priya and Meera are sisters.

## Inference:

We get the following arrangement from these clues: -


## Clues:

Ratio of the ages of Priya and her niece is $3: 1$ respectively. Ramesh's son, Vikram is 5 years older than his daughter-in-law Priya.

## Inference:

From these clues, we get two possible cases:

## Ramesh(+)


(-)
(12)


## Clues:

Meera is 25 years younger than Ramesh's wife, Sita. Aarav is the grandson of Ramesh and his mother is 7 years younger than his father, Karthik. The age gap between Vikram and his brother is the same as the age gap between Sita and her husband.

## Inference:

Case 1 is cancelled here as it is given that there are nine members in the family and in case 2 Sita will be 58 years old as it is given that the eldest member of the family is Ramesh who is 60 years old.


## Clues:

Aarav is 3 years younger than his cousin Arpita. Age gap between Aarav and his mother is same as the age gap of Arjun and her child.

## Inference:

Thus, the final arrangement is: -

"Sita is mother of Karthik" is the correct statement.

## S21. Ans.(c)

Sol. Final arrangement:


## Clues:

Meera is married to Arjun and they have a daughter who is 12 years old. Priya and Meera are sisters.

## Inference:

We get the following arrangement from these clues: -
Priya(-)——(-)Meera =Arjun (+)
(-)
(12)

## Clues:

Ratio of the ages of Priya and her niece is $3: 1$ respectively. Ramesh's son, Vikram is 5 years older than his daughter-in-law Priya.
Inference:
From these clues, we get two possible cases: -


## Clues:

Meera is 25 years younger than Ramesh's wife, Sita. Aarav is the grandson of Ramesh and his mother is 7 years younger than his father, Karthik. The age gap between Vikram and his brother is the same as the age gap between Sita and her husband.

## Inference:

Case 1 is cancelled here as it is given that there are nine members in the family and in case 2 Sita will be 58 years old as it is given that the eldest member of the family is Ramesh who is 60 years old.



## Clues:

Aarav is 3 years younger than his cousin Arpita. Age gap between Aarav and his mother is same as the age gap of Arjun and her child.

## Inference:

Thus, the final arrangement is: -
(60)
(58)


Priya is "daughter-in-law" of Sita.
S22. Ans.(b)
Sol.
Final arrangement:


## Clues:

Meera is married to Arjun and they have a daughter who is 12 years old. Priya and Meera are sisters.
Inference:
We get the following arrangement from these clues:

## Priya (-) —— (-) Meera $=$ Arjun ( + )


(-)
(12)

## Clues:

Ratio of the ages of Priya and her niece is $3: 1$ respectively. Ramesh's son, Vikram is 5 years older than his daughter-in-law Priya.
Inference:
From these clues, we get two possible cases: -

> Ramesh(+)

(-)
(12)


## Clues:

Meera is 25 years younger than Ramesh's wife, Sita. Aarav is the grandson of Ramesh and his mother is 7 years younger than his father, Karthik. The age gap between Vikram and his brother is the same as the age gap between Sita and her husband.

## Inference:

Case 1 is cancelled here as it is given that there are nine members in the family and in case 2 Sita will be 58 years old as it is given that the eldest member of the family is Ramesh who is 60 years old.


## Clues:

Aarav is 3 years younger than his cousin Arpita. Age gap between Aarav and his mother is same as the age gap of Arjun and her child.

## Inference:

Thus, the final arrangement is: -


Arjun is 39 years old.
Karthik is 43 years old.
So, the age gap between them is 4 years.

## S23. Ans.(c)

Sol. Final arrangement:


Clues: G sits second to the left of the person who sits on chair number 1. Chair number 5 is two chairs away from G. Chair number of K is a square of a number. K sits second to the right of the one who sits on chair number 1 . Chair number 6 is two places away from chair number 1.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.


Clues: Difference between the chair number of $A$ and $I$ is equal to the chair number of $K$. Chair number of $A$ is less than 3 . The chair number of $I$ is an odd number. The chair number of $E$ is the average of $F$ and $C$. Difference between the chair number of E and C is odd. Chair number of F is more than the chair number of C whose chair number is less than 8. D sits second to the left of the person who sits on Chair number 9. G and F do not sit adjacent to each other. A and $D$ do not sit adjacent to each other. $K$ and $D$ do not sit adjacent to each other. $D$ doesn't sit opposite to the one who sits on chair number 1.
Inference: From the above conditions it is clear that E sits on chair number 8 and C sits on chair number 7. Also, D will sit adjacent to G .



\|

Clues: The difference between the chair number of $B$ and $A$ is three times the difference between of the chair number of E and I. B is not adjacent to K and E. Person names start with a vowel do not sit adjacent to each other. As many persons sit between I and B as sit between H and E when counted from left of both H and I. A and I face in opposite direction. The person who sits on chair 10 does not face away from the table. The persons sit adjacent to F do face in the same direction. H do not face same direction as B.
Inference: From the above condition Case 2 is cancelled here as it does not satisfy the above-mentioned conditions.



Clues: The persons sit adjacent to B face in the opposite direction. The person who sits on chair 7 faces towards the table. Not more than two adjacent person face in the same direction.
Inference: From the above conditions it is clear that G faces away from the table.


## Clues:

$E$ and $K$ face opposite directions to each other. Chair number of $D$ is half the chair number of $K$.
Inference: From the above conditions it is clear that C and K sit adjacent to each other. We know one of them sit on chair number 3. So, the Final arrangement is:


A sits on Chair 1

## S24. Ans.(c)

Sol. Final arrangement:


Clues: $G$ sits second to the left of the person who sits on chair number 1 . Chair number 5 is two chairs away from G. Chair number of $K$ is a square of a number. $K$ sits second to the right of the one who sits on chair number 1. Chair number 6 is two places away from chair number 1.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.


Clues: Difference between the chair number of $A$ and $I$ is equal to the chair number of $K$. Chair number of A is less than 3. The chair number of $I$ is an odd number. The chair number of $E$ is the average of $F$ and $C$. Difference between the chair number of E and C is odd. Chair number of F is more than the chair number of C whose chair number is less than 8. D sits second to the left of the person who sits on Chair number 9. G and F do not sit adjacent to each other. A and $D$ do not sit adjacent to each other. $K$ and $D$ do not sit adjacent to each other. $D$ doesn't sit opposite to the one who sits on chair number 1 .
Inference: From the above conditions it is clear that E sits on chair number 8 and C sits on chair number 7. Also, D will sit adjacent to G .



Clues: The difference between the chair number of B and A is three times the difference between of the chair number of E and I. B is not adjacent to K and E. Person names start with a vowel do not sit adjacent to each other. As many persons sit between I and B as sit between $H$ and $E$ when counted from left of both $H$ and $I$. A and I face in opposite direction. The person who sits on chair 10 does not face away from the table. The persons sit adjacent to F do face in the same direction. H do not face same direction as $B$.
Inference: From the above condition Case 2 is cancelled here as it does not satisfy the above-mentioned conditions.



Clues: The persons sit adjacent to B face in the opposite direction. The person who sits on chair 7 faces towards the table. Not more than two adjacent person face in the same direction.
Inference: From the above conditions it is clear that G faces away from the table.


## Clues:

$E$ and $K$ face opposite directions to each other. Chair number of $D$ is half the chair number of $K$.
Inference: From the above conditions it is clear that C and K sit adjacent to each other. We know one of them sit on chair number 3. So, the Final arrangement is:


The ratio of the number of persons facing towards the table and the number of persons facing away from the table is $1: 1$ respectively.


## S25. Ans.(b)

## Sol. Final arrangement:



Clues: G sits second to the left of the person who sits on chair number 1. Chair number 5 is two chairs away from G. Chair number of $K$ is a square of a number. $K$ sits second to the right of the one who sits on chair number 1. Chair number 6 is two places away from chair number 1.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.


1


1

Clues: Difference between the chair number of A and I is equal to the chair number of K. Chair number of A is less than 3. The chair number of $I$ is an odd number. The chair number of $E$ is the average of $F$ and $C$. Difference between the chair number of $E$ and $C$ is odd. Chair number of $F$ is more than the chair number of $C$ whose chair number is less than 8. D sits second to the left of the person who sits on Chair number 9. G and F do not sit adjacent to each other. A and $D$ do not sit adjacent to each other. $K$ and $D$ do not sit adjacent to each other. D doesn't sit opposite to the one who sits on chair number 1.
Inference: From the above conditions it is clear that E sits on chair number 8 and C sits on chair number 7. Also, D will sit adjacent to G .



Clues: The difference between the chair number of $B$ and $A$ is three times the difference between of the chair number of E and I. B is not adjacent to K and E . Person names start with a vowel do not sit adjacent to each other. As many persons sit between I and B as sit between H and E when counted from left of both H and I. A and I face in opposite direction. The person who sits on chair 10 does not face away from the table. The persons sit adjacent to F do face in the same direction. H do not face same direction as B.
Inference: From the above condition Case 2 is cancelled here as it does not satisfy the above-mentioned conditions.


Clues: The persons sit adjacent to B face in the opposite direction. The person who sits on chair 7 faces towards the table. Not more than two adjacent person face in the same direction.
Inference: From the above conditions it is clear that G faces away from the table.


Clues:
E and K face opposite directions to each other. Chair number of D is half the chair number of K .
Inference: From the above conditions it is clear that C and K sit adjacent to each other. We know one of them sit on chair number 3. So, the Final arrangement is:


Six persons sit between I and C when counted from the left of I.

## S26. Ans.(d)

## Sol. Final arrangement:



Clues: G sits second to the left of the person who sits on chair number 1. Chair number 5 is two chairs away from G. Chair number of $K$ is a square of a number. $K$ sits second to the right of the one who sits on chair number 1 . Chair number 6 is two places away from chair number 1.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.


1


1

Clues: Difference between the chair number of A and I is equal to the chair number of K . Chair number of A is less than 3. The chair number of $I$ is an odd number. The chair number of $E$ is the average of $F$ and $C$. Difference between the chair number of E and C is odd. Chair number of F is more than the chair number of C whose chair number is less than 8. D sits second to the left of the person who sits on Chair number 9. G and F do not sit adjacent to each other. A and $D$ do not sit adjacent to each other. $K$ and $D$ do not sit adjacent to each other. D doesn't sit opposite to the one who sits on chair number 1 .
Inference: From the above conditions it is clear that E sits on chair number 8 and C sits on chair number 7. Also, D will sit adjacent to G.



Clues: The difference between the chair number of $B$ and $A$ is three times the difference between of the chair number of E and I. B is not adjacent to K and E . Person names start with a vowel do not sit adjacent to each other. As many persons sit between I and B as sit between H and E when counted from left of both H and I. A and I face in opposite direction. The person who sits on chair 10 does not face away from the table. The persons sit adjacent to F do face in the same direction. H do not face same direction as B.
Inference: From the above condition Case 2 is cancelled here as it does not satisfy the above-mentioned conditions.


Clues: The persons sit adjacent to B face in the opposite direction. The person who sits on chair 7 faces towards the table. Not more than two adjacent person face in the same direction.
Inference: From the above conditions it is clear that G faces away from the table.


E and K face opposite directions to each other. Chair number of D is half the chair number of K .
Inference: From the above conditions it is clear that C and K sit adjacent to each other. We know one of them sit on chair number 3. So, the Final arrangement is:

$B$ sits fourth to the left of $C$.

## S27. Ans.(b)

## Sol. Final arrangement:



Clues: G sits second to the left of the person who sits on chair number 1. Chair number 5 is two chairs away from G. Chair number of $K$ is a square of a number. $K$ sits second to the right of the one who sits on chair number 1. Chair number 6 is two places away from chair number 1.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.


1


1

Clues: Difference between the chair number of A and I is equal to the chair number of K. Chair number of A is less than 3. The chair number of $I$ is an odd number. The chair number of $E$ is the average of $F$ and $C$. Difference between the chair number of E and C is odd. Chair number of F is more than the chair number of C whose chair number is less than 8. D sits second to the left of the person who sits on Chair number 9. G and F do not sit adjacent to each other. A and $D$ do not sit adjacent to each other. $K$ and $D$ do not sit adjacent to each other. $D$ doesn't sit opposite to the one who sits on chair number 1.
Inference: From the above conditions it is clear that E sits on chair number 8 and C sits on chair number 7. Also, D will sit adjacent to G .



Clues: The difference between the chair number of $B$ and $A$ is three times the difference between of the chair number of E and I. B is not adjacent to K and E. Person names start with a vowel do not sit adjacent to each other. As many persons sit between I and B as sit between H and E when counted from left of both H and I. A and I face in opposite direction. The person who sits on chair 10 does not face away from the table. The persons sit adjacent to F do face in the same direction. H do not face same direction as B.
Inference: From the above condition Case 2 is cancelled here as it does not satisfy the above-mentioned conditions.



Clues: The persons sit adjacent to B face in the opposite direction. The person who sits on chair 7 faces towards the table. Not more than two adjacent person face in the same direction.
Inference: From the above conditions it is clear that G faces away from the table.

$E$ and $K$ face opposite directions to each other. Chair number of $D$ is half the chair number of $K$.
Inference: From the above conditions it is clear that C and K sit adjacent to each other. We know one of them sit on chair number 3. So, the Final arrangement is:


C sits on chair number 7.

S28. Ans.(c)
Sol.


Point C is in the North-west direction with respect to point K .
S29. Ans.(a)
Sol.


S30. Ans.(b)
Sol.


The total distance between Point B and Point H is 39 m

## S31. Ans.(c)

Sol.


Point G is in South-East direction with respect to the Ramesh

## S32. Ans.(d)

Sol. Schedule for remaining match has not been mentioned in the given statement. It is mentioned positive cases happened in supposedly the safest place so, we can assume that there is so safest place from this deadly virus and as big decision has been taken and secretary has told "what was happening and what we can do now", so we can assume that some of the players get infected.

## S33. Ans.(c)

Sol. Only I supports the decision by BCCI to postpone the IPL match. Option II and III negates the decision as it is taking about loss of franchise.


Case 1
November


Clues: One who goes on a trip in July sits second to the right of F. One who goes in July does not sit at an end. Two person sits between the one who goes in July and the one who stays in Room number 7. F and the one who stays in Room number 7 do not sit adjacent. One who sits opposite to the person who stays in Room number 7 sits second to the left of the person who goes in August. The person who goes in March sits at an end. One who goes in March neither sits in Row 2 nor opposite to the person who stays in room number 7. F does not go in March.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.


Clues: The difference between the room number of the person who goes in March and the one who goes in August is equal to the room number of H. H stays in the least odd number room and the person who goes in August stays in the second greatest even number room. H sits second to the left of the person who stays in room number 7 but not adjacent to the one who goes in April. F goes in the month having the least number of days. W sits third to the right of the person who goes in January. W doesn't sit in Row 2. One who goes in January does not face the person who stays in room number 7. Room number of the one who goes in March is one more than the room number of $W$ who goes in April.
Inference: From the above condition Case 2 is cancelled here as it does not satisfy the above-mentioned conditions.


Clues: $U$ sits at the end and third to the left of the person who stays in room number 11. The person who goes in May sits opposite to the person who sits second to the right of Z. D sits opposite to T. D goes in the month having an even number of days. T does not sit adjacent to H . B stays in room number 4 but does not sit adjacent to F . Room number of the person who goes in May is one more than the room number of the person who goes in July.
Inference: From the above conditions it is clear that T goes in January.


Case 1


Clues: X sits second to the right of Y. B and C do not sit adjacent to each other. The person who goes in November stays in room number 2. H and U neither stay in room number 2 nor goes in December. The person who goes in September stays in room number 8. T stays in an odd room number. H and C do not go in June.
Inference: From the above conditions it is clear that C goes in December


Inference: Only one person remains i.e., G and only one month remains i.e., October and only one room number remains i.e., 6. So, the Final arrangement is:


Case 1


The person who stays in room number 3 goes in October.

## S35. Ans.(b)

Sol. Final arrangement:


Case 1


Clues: One who goes on a trip in July sits second to the right of F. One who goes in July does not sit at an end. Two person sits between the one who goes in July and the one who stays in Room number 7. F and the one who stays in Room number 7 do not sit adjacent. One who sits opposite to the person who stays in Room number 7 sits second to the left of the person who goes in August. The person who goes in March sits at an end. One who goes in March neither sits in Row 2 nor opposite to the person who stays in room number 7. F does not go in March.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.


Case 1

March July
7


Case 2


August

Clues: The difference between the room number of the person who goes in March and the one who goes in August is equal to the room number of H. H stays in the least odd number room and the person who goes in August stays in the second greatest even number room. H sits second to the left of the person who stays in room number 7 but not adjacent to the one who goes in April. F goes in the month having the least number of days. W sits third to the right of the person who goes in January. W doesn't sit in Row 2. One who goes in January does not face the person who stays in room number 7. Room number of the one who goes in March is one more than the room number of W who goes in April.
Inference: From the above condition Case 2 is cancelled here as it does not satisfy the above-mentioned conditions.


Case 1



August

Clues: $U$ sits at the end and third to the left of the person who stays in room number 11. The person who goes in May sits opposite to the person who sits second to the right of Z. D sits opposite to T. D goes in the month having an even number of days. T does not sit adjacent to H . B stays in room number 4 but does not sit adjacent to F . Room number of the person who goes in May is one more than the room number of the person who goes in July.
Inference: From the above conditions it is clear that T goes in January.


Case 1


Clues: X sits second to the right of Y. B and C do not sit adjacent to each other. The person who goes in November stays in room number 2. H and $U$ neither stay in room number 2 nor goes in December. The person who goes in September stays in room number 8. T stays in an odd room number. H and C do not go in June.

Inference: From the above conditions it is clear that C goes in December


Case 1
November


Inference: Only one person remains i.e., G and only one month remains i.e., October and only one room number remains i.e., 6 . So, the Final arrangement is:


Case 1
November


The person who stays in room number 10 sits opposite to the person who stays in room number 3 .
S36. Ans.(a)
Sol.
Final arrangement:


Case 1


Clues: One who goes on a trip in July sits second to the right of F. One who goes in July does not sit at an end. Two person sits between the one who goes in July and the one who stays in Room number 7. F and the one who stays in Room number 7 do not sit adjacent. One who sits opposite to the person who stays in Room number 7 sits second to the left of the person who goes in August. The person who goes in March sits at an end. One who goes in March neither sits in Row 2 nor opposite to the person who stays in room number 7. F does not go in March.

Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.

March
August

## March <br> 7



Case 1


July
7


Case 2

August

Clues: The difference between the room number of the person who goes in March and the one who goes in August is equal to the room number of H. H stays in the least odd number room and the person who goes in August stays in the second greatest even number room. H sits second to the left of the person who stays in room number 7 but not adjacent to the one who goes in April. F goes in the month having the least number of days. W sits third to the right of the person who goes in January. W doesn't sit in Row 2. One who goes in January does not face the person who stays in room number 7. Room number of the one who goes in March is one more than the room number of W who goes in April.
Inference: From the above condition Case 2 is cancelled here as it does not satisfy the above-mentioned conditions.


Clues: $U$ sits at the end and third to the left of the person who stays in room number 11. The person who goes in May sits opposite to the person who sits second to the right of Z. D sits opposite to T. D goes in the month having an even number of days. T does not sit adjacent to H. B stays in room number 4 but does not sit adjacent to F . Room number of the person who goes in May is one more than the room number of the person who goes in July.
Inference: From the above conditions it is clear that T goes in January.


Case 1


Clues: X sits second to the right of Y. B and C do not sit adjacent to each other. The person who goes in November stays in room number 2. H and $U$ neither stay in room number 2 nor goes in December. The person who goes in September stays in room number 8. T stays in an odd room number. H and C do not go in June.
Inference: From the above conditions it is clear that C goes in December


Case 1


Inference: Only one person remains i.e., $G$ and only one month remains i.e., October and only one room number
$\begin{array}{lccccr}\text { February } & \text { May } & \text { July } & \mathbf{3} & \mathbf{2} & \text { Dec } \\ \mathbf{5} & \mathbf{4} & & \mathbf{7} \\ \text { Inference: } & \text { Only } & \text { one person remains i.e., } G \\ \text { remains i.e., } 6 \text {. So, the Final arrangement is: }\end{array}$


Case 1


Two person sits between T and the one who sits opposite to the person who goes in May i.e., W .

## S37. Ans.(e)

Sol.
Final arrangement:


Case 1


Clues: One who goes on a trip in July sits second to the right of F. One who goes in July does not sit at an end. Two person sits between the one who goes in July and the one who stays in Room number 7. F and the one who stays in Room number 7 do not sit adjacent. One who sits opposite to the person who stays in Room number 7 sits second to the left of the person who goes in August. The person who goes in March sits at an end. One who goes in March neither sits in Row 2 nor opposite to the person who stays in room number 7. F does not go in March.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.
$\underset{7}{\text { March }} \quad$ July
7


Case 2


August

Clues: The difference between the room number of the person who goes in March and the one who goes in August is equal to the room number of H. H stays in the least odd number room and the person who goes in August stays in the second greatest even number room. H sits second to the left of the person who stays in room number 7 but not adjacent to the one who goes in April. F goes in the month having the least number of days. W sits third to the right of the person who goes in January. W doesn't sit in Row 2. One who goes in January does not face the person who stays in room number 7. Room number of the one who goes in March is one more than the room number of W who goes in April.
Inference: From the above condition Case 2 is cancelled here as it does not satisfy the above-mentioned conditions.


Case 1


Clues: $U$ sits at the end and third to the left of the person who stays in room number 11. The person who goes in May sits opposite to the person who sits second to the right of Z. D sits opposite to T. D goes in the month having an even number of days. T does not sit adjacent to H. B stays in room number 4 but does not sit adjacent to $F$. Room number of the person who goes in May is one more than the room number of the person who goes in July.
Inference: From the above conditions it is clear that T goes in January.


Case 1


Clues: X sits second to the right of Y. B and C do not sit adjacent to each other. The person who goes in November stays in room number 2 . $H$ and $U$ neither stay in room number 2 nor goes in December. The person who goes in September stays in room number 8. T stays in an odd room number. H and C do not go in June.

Inference: From the above conditions it is clear that C goes in December


Case 1


Inference: Only one person remains i.e., $G$ and only one month remains i.e., October and only one room number remains i.e., 6. So, the Final arrangement is:


Case 1

## November



All statements are true.

S38. Ans.(a)
Sol. Final arrangement:


Case 1


Clues: One who goes on a trip in July sits second to the right of F. One who goes in July does not sit at an end. Two person sits between the one who goes in July and the one who stays in Room number 7. F and the one who stays in Room number 7 do not sit adjacent. One who sits opposite to the person who stays in Room number 7 sits second to the left of the person who goes in August. The person who goes in March sits at an end. One who goes in March neither sits in Row 2 nor opposite to the person who stays in room number 7. F does not go in March.

Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.


Clues: The difference between the room number of the person who goes in March and the one who goes in August is equal to the room number of H. H stays in the least odd number room and the person who goes in August stays in the second greatest even number room. H sits second to the left of the person who stays in room number 7 but not adjacent to the one who goes in April. F goes in the month having the least number of days. W sits third to the right of the person who goes in January. W doesn't sit in Row 2. One who goes in January does not face the person who stays in room number 7 . Room number of the one who goes in March is one more than the room number of W who goes in April.
Inference: From the above condition Case 2 is cancelled here as it does not satisfy the above-mentioned conditions.


Clues: $U$ sits at the end and third to the left of the person who stays in room number 11. The person who goes in May sits opposite to the person who sits second to the right of Z. D sits opposite to T. D goes in the month having an even number of days. T does not sit adjacent to H. B stays in room number 4 but does not sit adjacent to F . Room number of the person who goes in May is one more than the room number of the person who goes in July.
Inference: From the above conditions it is clear that T goes in January.


Case 1


Clues: X sits second to the right of Y. B and C do not sit adjacent to each other. The person who goes in November stays in room number 2 . $H$ and $U$ neither stay in room number 2 nor goes in December. The person who goes in September stays in room number 8. T stays in an odd room number. H and C do not go in June.

Inference: From the above conditions it is clear that C goes in December


Inference: Only one person remains i.e., G and only one month remains i.e., October and only one room number remains i.e., 6. So, the Final arrangement is:


C sits third to the right of the person who stays in room number 4.
S39. Ans.(a)
Sol.
Symbols are coded as below: -

$\mathrm{A}=\mathrm{O}>\mathrm{R} \geq \mathrm{K}=\mathrm{S}<\mathrm{P} ; \mathrm{L}=\mathrm{R}>\mathrm{Z}$
I. A $>\mathrm{Z}$ (True) II. $\mathrm{Z}<\mathrm{P}$ (False)

S40. Ans.(e)
Sol.
Symbols are coded as below: -

| $>$ |  | $\geq$ | $@$ |  | $\&$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | $=$ |  |  | $\#$ |  |
| $<$ |  |  | $\%$ |  | $\$$ |

$\mathrm{E}<\mathrm{K}=\mathrm{S}<\mathrm{X} ; \mathrm{B}>\mathrm{F}=\mathrm{K}<\mathrm{M}$
I. X $>$ F (True) II. E $<$ B (True)

## S41. Ans.(d)

Sol.
Symbols are coded as below: -

| $>$ |  | $\geq$ | $@$ |  | $\&$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | $=$ |  |  | $\#$ |  |
| $<$ |  |  | $\%$ |  | $\$$ |

$\mathrm{O}>\mathrm{X}>\mathrm{Y}<\mathrm{E}=\mathrm{W}>\mathrm{U} \geq \mathrm{D}=\mathrm{B} \leq \mathrm{N}$
I. $\mathrm{O}>\mathrm{W}$ (False) II. $\mathrm{N} \geq \mathrm{X}$ (False)

## S42. Ans.(b)

Sol.
Symbols are coded as below: -

$\mathrm{A}>\mathrm{B}<\mathrm{C}=\mathrm{D} \geq \mathrm{E}=\mathrm{F} ; \mathrm{G}<\mathrm{C}=\mathrm{H}$
I. A $>\mathrm{H}$ (False)
II. $\mathrm{H} \geq \mathrm{F}$ (True)

## S43. Ans.(e)

Sol. Final arrangement:

| Floors | Persons |
| :---: | :---: |
| 20 | - |
| 19 | - |
| 18 | L |
| 17 | W |
| 16 | S |
| 15 | - |
| 14 | - |
| 13 | C |
| 12 | Y |
| 11 | M |
| 10 | - |
| 9 | R |
| 8 | P |
| 7 | K |
| 6 | - |
| 5 | - |
| 4 | J |
| 3 | - |
| 2 | U |
| 1 | G |



## Clues:

Y lives four floors above P. The person who lives two floors above P is just below M's floor. The number of persons live between Y and M is same as the number of persons live between P and K .

## Inference:

From these clues, we get two possible cases: -

| Persons | Persons |
| :---: | :---: |
| Case 1 | Case 2 |
| Y | Y |
| M | M |
|  |  |
| K |  |
| P | P |
|  |  |

## Clues:

Two persons live between K and J. U lives two floors below J. There are six floors between M and L . As many floors between $K$ and $U$ as between $M$ and $S$.
Inference:
From these clues, we get the following arrangement: -

| Persons | Persons |
| :---: | :---: |
| Case 1 | Case 2 |
| L | L |
|  |  |
| S | S/ |
|  |  |
|  |  |
| Y | Y |
| M | M |
| K | P |
| P | K |
| J | S/ |
| U | J |
|  | U |

## Clues:

W lives just above $\mathrm{S} . \mathrm{W}$ is fourth from the topmost floor. There are three floors between W and C . Number of floors above $L$ is one less than the number of persons live between $C$ and $R$.

## Inference:

Case 1 is cancelled here as there is no place left for $R$.

| Persens | Persons |
| :---: | :---: |
| Gase 1 | Case 2 |
|  |  |
|  |  |
| E | L |
| W | W |
| S | S |
|  |  |
|  |  |
| 6 | C |
| Y | Y |
| M | M |
|  |  |
| K | R |
| P | P |
|  | K |
| I |  |
|  |  |
| U | I |
|  |  |
|  | U |

## Clues:

There are six floors between P and G . The number of floors between R and K is one more than the number of floors below G .
Inference:
Thus, the final arrangement is: -

| Floors | Persons |
| :---: | :---: |
| 20 | - |
| 19 | - |
| 18 | L |
| 17 | W |
| 16 | S |
| 15 | - |
| 14 | - |
| 13 | C |
| 12 | Y |
| 11 | M |
| 10 | - |
| 9 | R |
| 8 | P |
| 7 | K |
| 6 | - |
| 5 | - |
| 4 | J |
| 3 | - |
| 2 | U |
| 1 | G |

$R$ lives on the $9^{\text {th }}$ floor.

S44. Ans.(c)
Sol. Final arrangement:

| Floors | Persons |
| :---: | :---: |
| 20 | - |
| 19 | - |
| 18 | L |
| 17 | W |
| 16 | S |
| 15 | - |
| 14 | - |
| 13 | C |
| 12 | Y |
| 11 | M |
| 10 | - |
| 9 | R |
| 8 | P |
| 7 | K |
| 6 | - |
| 5 | - |
| 4 | J |
| 3 | - |
| 2 | U |
| 1 | G |



## Clues:

Y lives four floors above P. The person who lives two floors above P is just below M's floor. The number of persons live between $Y$ and $M$ is same as the number of persons live between $P$ and $K$.

## Inference:

From these clues, we get two possible cases: -

| Persons | Persons |
| :---: | :---: |
| Case 1 | Case 2 |
| Y | Y |
| M | M |
|  |  |
| K | P |
| P | K |
|  |  |

## Clues:

Two persons live between K and J . U lives two floors below J. There are six floors between M and L . As many floors between $K$ and $U$ as between $M$ and $S$.

## Inference:

From these clues, we get the following arrangement: -

| Persons | Persons |
| :---: | :---: |
| Case 1 | Case 2 |
| L | L |
|  | S/ |
|  |  |
|  |  |
|  | Y |
| Y | M |
| M |  |
| K | P |
| P | S/ |
|  |  |
| J | J |
| U | U |



Clues:
W lives just above S . W is fourth from the topmost floor. There are three floors between W and C . Number of floors above $L$ is one less than the number of persons live between C and R .

## Inference:

Case 1 is cancelled here as there is no place left for $R$.

| Persens | Persons |
| :---: | :---: |
| Gase 1 | Case 2 |
|  |  |
|  |  |
| L | L |
| W | W |
| S | S |
|  |  |
|  | C |
| G | Y |
| M | M |
|  | R |
| K | P |
| P | K |
| f |  |
| U | U |
|  |  |

## Clues:

There are six floors between P and G . The number of floors between R and K is one more than the number of floors below G .
Inference:
Thus, the final arrangement is: -

| Floors | Persons |
| :---: | :---: |
| 20 | - |
| 19 | - |
| 18 | L |
| 17 | W |
| 16 | S |
| 15 | - |
| 14 | - |
| 13 | C |
| 12 | Y |
| 11 | M |
| 10 | - |
| 9 | R |
| 8 | P |
| 7 | K |
| 6 | - |
| 5 | - |
| 4 | J |
| 3 | - |
| 2 | U |
| 1 | G |

There are 20 floors in the building.

## S45. Ans.(c)

Sol. Final arrangement:

| Floors | Persons |
| :---: | :---: |
| 20 | - |
| 19 | - |
| 18 | L |
| 17 | W |
| 16 | S |
| 15 | - |
| 14 | - |
| 13 | C |
| 12 | Y |
| 11 | M |
| 10 | - |
| 9 | R |
| 8 | P |
| 7 | K |
| 6 | - |
| 5 | - |
| 4 | J |
| 3 | - |
| 2 | U |
| 1 | G |



## Clues:

Y lives four floors above P. The person who lives two floors above P is just below M's floor. The number of persons live between $Y$ and $M$ is same as the number of persons live between $P$ and $K$.

## Inference:

From these clues, we get two possible cases: -

| Persons | Persons |
| :---: | :---: |
| Case 1 | Case 2 |
| Y | Y |
| M | M |
|  |  |
| K | P |
| P | K |
|  |  |

## Clues:

Two persons live between K and J. U lives two floors below J. There are six floors between M and L . As many floors between K and U as between M and S .

## Inference:

From these clues, we get the following arrangement: -

| Persons | Persons |
| :---: | :---: |
| Case 1 | Case 2 |
| L | L |
|  |  |
| S | S/ |
|  |  |
|  | Y |
| Y | M |
| M |  |
| K | P |
| P | K |
|  | S/ |
| J | J |
| U | U |

## Clues:

W lives just above S . W is fourth from the topmost floor. There are three floors between W and C. Number of floors above $L$ is one less than the number of persons live between $C$ and $R$.

## Inference:

Case 1 is cancelled here as there is no place left for $R$.

| Persens | Persons |
| :---: | :---: |
| Gase 1 | Case 2 |
|  |  |
|  | L |
| L | W |
| W | S |
| S |  |
|  | C |
| G | Y |
| Y | M |
| M | R |
| K | P |
| P | K |
|  |  |
| f | I |
|  |  |
|  |  |
|  |  |

## Clues:

There are six floors between P and G . The number of floors between R and K is one more than the number of floors below G .
Inference:
Thus, the final arrangement is: -

| Floors | Persons |
| :---: | :---: |
| 20 | - |
| 19 | - |
| 18 | L |
| 17 | W |
| 16 | S |
| 15 | - |
| 14 | - |
| 13 | C |
| 12 | Y |
| 11 | M |
| 10 | - |
| 9 | R |
| 8 | P |
| 7 | K |
| 6 | - |
| 5 | - |
| 4 | J |
| 3 | - |
| 2 | U |
| 1 | G |

$K$ lives five floors above $U$.
S46. Ans.(d)
Sol. Final arrangement:

| Floors | Persons |
| :---: | :---: |
| 20 | - |
| 19 | - |
| 18 | L |
| 17 | W |
| 16 | S |
| 15 | - |
| 14 | - |
| 13 | C |
| 12 | Y |
| 11 | M |
| 10 | - |
| 9 | R |
| 8 | P |
| 7 | K |
| 6 | - |
| 5 | - |
| 4 | J |
| 3 | - |
| 2 | U |
| 1 | G |



Clues:
Y lives four floors above P. The person who lives two floors above P is just below M's floor. The number of persons live between $Y$ and $M$ is same as the number of persons live between $P$ and $K$.
Inference:
From these clues, we get two possible cases: -

| Persons | Persons |
| :---: | :---: |
| Case 1 | Case 2 |
| Y | Y |
| M | M |
|  |  |
| K | P |
| P | K |
|  |  |

## Clues:

Two persons live between K and J. U lives two floors below J. There are six floors between M and L . As many floors between K and U as between M and S .

## Inference:

From these clues, we get the following arrangement: -

| Persons | Persons |
| :---: | :---: |
| Case 1 | Case 2 |
| L | L |
|  |  |
| S | S/ |
|  |  |
|  |  |
| Y | Y |
| M | M |
| K |  |
| P | P |
|  | K |
| J | S/ |
| U | J |
|  | U |

## Clues:

W lives just above S . W is fourth from the topmost floor. There are three floors between W and C. Number of floors above $L$ is one less than the number of persons live between $C$ and $R$.

## Inference:

Case 1 is cancelled here as there is no place left for $R$.

| Persens | Persons |
| :---: | :---: |
| Gase 1 | Case 2 |
|  |  |
|  |  |
| E | L |
| W | W |
| S | S |
|  |  |
|  |  |
| G | C |
| Y | Y |
| M | M |
|  |  |
| K | R |
| P | P |
|  | K |
| f |  |
|  |  |
| U | I |
|  |  |
|  | U |

## Clues:

There are six floors between P and G . The number of floors between R and K is one more than the number of floors below G .
Inference:
Thus, the final arrangement is: -

| Floors | Persons |
| :---: | :---: |
| 20 | - |
| 19 | - |
| 18 | L |
| 17 | W |
| 16 | S |
| 15 | - |
| 14 | - |
| 13 | C |
| 12 | Y |
| 11 | M |
| 10 | - |
| 9 | R |
| 8 | P |
| 7 | K |
| 6 | - |
| 5 | - |
| 4 | J |
| 3 | - |
| 2 | U |
| 1 | G |

Four floors are there between C and L.

## S47. Ans.(e)

Sol. Final arrangement:

| Floors | Persons |
| :---: | :---: |
| 20 | - |
| 19 | - |
| 18 | L |
| 17 | W |
| 16 | S |
| 15 | - |
| 14 | - |
| 13 | C |
| 12 | Y |
| 11 | M |
| 10 | - |
| 9 | R |
| 8 | P |
| 7 | K |
| 6 | - |
| 5 | - |
| 4 | J |
| 3 | - |
| 2 | U |
| 1 | G |



## Clues:

Y lives four floors above P. The person who lives two floors above P is just below M's floor. The number of persons live between $Y$ and $M$ is same as the number of persons live between $P$ and $K$.
Inference:
From these clues, we get two possible cases: -

| Persons | Persons |
| :---: | :---: |
| Case 1 | Case 2 |
| Y | Y |
| M | M |
| K |  |
| P | P |
|  | K |
|  |  |

## Clues:

Two persons live between K and J. U lives two floors below J. There are six floors between M and L . As many floors between $K$ and $U$ as between $M$ and $S$.

## Inference:

From these clues, we get the following arrangement: -

| Persons | Persons |
| :---: | :---: |
| Case 1 | Case 2 |
| L | L |
|  |  |
| S | S/ |
|  |  |
|  |  |
| Y | Y |
| M | M |
| K | P |
| P | K |
| J | $\mathrm{S} /$ |
| U | J |
|  | U |

## Clues:

W lives just above S . W is fourth from the topmost floor. There are three floors between W and C . Number of floors above $L$ is one less than the number of persons live between $C$ and $R$.

## Inference:

Case 1 is cancelled here as there is no place left for $R$.

| Persens | Persons |
| :---: | :---: |
| Gase 1 | Case 2 |
|  |  |
|  |  |
| L | L |
| S | S |
|  |  |
|  | C |
| G | Y |
| Y | M |
| M | R |
|  | P |
| K | K |
|  |  |
| P |  |
| U | U |
|  |  |

## Clues:

There are six floors between P and G . The number of floors between R and K is one more than the number of floors below G .
Inference:
Thus, the final arrangement is: -

| Floors | Persons |
| :---: | :---: |
| 20 | - |
| 19 | - |
| 18 | L |
| 17 | W |
| 16 | S |
| 15 | - |
| 14 | - |
| 13 | C |
| 12 | Y |
| 11 | M |
| 10 | - |
| 9 | R |
| 8 | P |
| 7 | K |
| 6 | - |
| 5 | - |
| 4 | J |
| 3 | - |
| 2 | U |
| 1 | G |

An unknown person lives on the floor immediately below $K$.

## S48. Ans.(d)

## Sol. Logic:

Symbols - \#, if the $2^{\text {nd }}$ letter from the left end is a vowel.
$\$$, if the $2^{\text {nd }}$ letter from the left end is a consonant.
Number - Difference between the place value of the first and last letter of each word.
Letter - The place value of a given coded letter is equal to the total number of letters in each word. The code for "Elephant" is " $15 \$ \mathrm{H}^{\prime}$.

## S49. Ans.(b)

## Sol. Logic:

Symbols - \#, if the $2^{\text {nd }}$ letter from the left end is a vowel.
$\$$, if the $2^{\text {nd }}$ letter from the left end is a consonant.
Number - Difference between the place value of the first and last letter of each word.
Letter - The place value of a given coded letter is equal to the total number of letters in each word. The code for "Appetite" is " $4 \$ \mathrm{H}$ ".

## S50. Ans.(b)

Sol. Logic:
Symbols - \#, if the $2^{\text {nd }}$ letter from the left end is a vowel.
$\$$, if the $2^{\text {nd }}$ letter from the left end is a consonant.
Number - Difference between the place value of the first and last letter of each word.
Letter - The place value of a given coded letter is equal to the total number of letters in each word.
The possible word for the code " $0 \# \mathrm{H}$ " is services.

## S51. Ans.(d)

Sol. Among the given options, both (a) and (b) are correct, while option (c) is incorrect. Hence, option (d) is the right answer choice.
Refer to the fifth line of the first paragraph, "Our biodiversity also serves as a perpetual source of spiritual enrichment, intimately linked to our physical and mental well-being."

## S52. Ans.(c)

Sol. Among the given options, only (c) is correct, while (a) and (b) are incorrect. Hence, option (c) is the right answer choice.
Refer to the starting lines of the second paragraph, "Climate change and the ongoing pandemic will put additional stresses on our natural ecosystems even though it is becoming clear that repairing our dysfunctional relationship with nature is one of the ways to mitigate climate change and curtail future outbreaks of infectious diseases that can bring unimaginable misery."

## S53. Ans.(e)

Sol. All the given statements are correct with reference to the information provided in the given passage. Hence, option (e) is the correct answer choice.
For statement (a): Refer to the fourth line of the second paragraph, "Thus, preserving biodiversity is directly relevant to the social, economic, and environmental well-being of our people."
For statement (b): Refer to the last line of the fourth paragraph, "Restoration activities across India's degraded lands, which amount to almost a third of our land area, alone could generate several million jobs."
For statement (c): Refer to the seventh line of the third paragraph, "The pandemic has exposed the dysfunctional relationship between humanity and nature, and we must urgently address the issues it has laid bare."

## S54. Ans.(e)

Sol. Among the given options, only (a) and (c) could fill in the blank highlighted in the given passage. Hence, option (e) is the right answer choice. The given sentence states that the National Biodiversity Authority is collaborating with a Bengaluru-based Biodiversity Collaborative to hold consultations and develop guidelines for the Mission, which will be led by a core of the country's leading biodiversity science and conservation organizations from the public, academic, and civil society sectors.
(a) road maps- a plan or strategy intended to achieve a particular goal.
(b) diversity- the state of being diverse; variety.
(c) work plans- a proposed strategy or schedule for a particular project.

## S55. Ans.(d)

Sol. Among the given options, both 'restore' and 'overhaul' are similar in meaning to the word highlighted in the given passage. Hence, option (d) is the right answer choice. Rejuvenate means to give new energy or vigor to; revitalize; restore a youthful appearance.
(a) restore- bring back or re-establish (a previous right, practice, or situation).
(b) distort- give a misleading or false account or impression of.
(c) overhaul- to renovate, remake, revise, or renew thoroughly.

## S56. Ans.(d)

Sol. Among the given options, only (a) and (b) were the principal matter of concern for John Kerry during his recent visit to India. Hence, option (d) is the right answer choice.
Refer to the first line of the first paragraph, "The recent visit to India by United States Special Presidential Envoy for Climate John Kerry gave an opportunity for both sides to discuss cooperation on climate change and the balance between near-term priorities and long-term targets."

## S57. Ans.(d)

Sol. Among the given options, both (b) and (c) are correct. Hence, option (d) is the right answer choice.
Refer to the second line of the second paragraph, "However young, we need to start saving now to meet the goals of a financially secure retirement. It would be foolish to not have a retirement plan on the grounds that it is in the distant future, that medical sciences might advance, or that we could consider retirement properly when we are richer in middle age."

## S58. Ans.(d)

Sol. Among the given options, only (a) and (b) are correct with reference to the information provided in the given passage. Whereas, option (c) is incorrect. Hence, option (d) is the right answer choice.
For statement (a): The fourth line of the first paragraph, "This presents a conundrum for fast-growing developing countries such as India. They need the carbon space to develop but they are also among the most vulnerable countries to climate change." For statement (b): The seventh line of the second paragraph, "Ambitious renewable energy targets, improvements in energy efficiency and fast penetration of electric vehicles are among India's critical low-carbon objectives in the next decade."
For statement (c): The seventh line of the third paragraph, "As the suite of mitigation technologies becomes more widely available and cheaper, all countries could achieve net-zero much earlier."

## S59. Ans.(e)

Sol. Every given statement infers the accurate conclusion of the given passage. Therefore, the inferences could be drawn from all the given sentences. Hence, option (e) is the right answer choice.
For statement (a): The second-last sentence of the first paragraph, " This view proposes focusing on measurable near-term progress and paints the long-term (the year 2050 and beyond) as too far to be meaningful in terms of progress towards a deeply decarbonized world."
For statement (b): The seventh line of the third paragraph, "As the suite of mitigation technologies becomes more widely available and cheaper, all countries could achieve net-zero much earlier."
For statement (c): The concluding lines of the third paragraph, "The debate between prioritizing only near-term actions versus announcing long-term net-zero goals presents a false binary. Both are needed to establish certainty of action, the credibility of promises and create incentives for markets to respond. The real debate should be about climate justice for people and the planet."

## S60. Ans.(c)

Sol. Out of the given options, 'among' could fill in the blank (A) appropriately to make the sentence grammatically correct and contextually meaningful. Hence, option (c) is the right answer choice. The given sentence states that they require carbon space to thrive, but they are also among the most climate-vulnerable countries.
(a) between- in or along the space separating two objects or regions.
(b) about- used to indicate movement within a particular area.
(c) among- indicating a division, choice, or differentiation involving three or more participants.

## S61. Ans.(d)

Sol. Among the given options, both 'difficulty' and 'dilemma' are the most similar in meaning to the highlighted word. Hence, option (d) is the right answer choice. Conundrum means a confusing and difficult problem or question.
(a) dilemma- a difficult situation or problem.
(b) extension- a part that is added to something to enlarge or prolong it.
(c) difficulty- the state or condition of being difficult.

## S62. Ans.(a)

Sol. Among the given options, only 'hasty' is the most dissimilar in meaning to the highlighted word. While the rest of the words are similar in meaning. Hence, option (a) is the most suitable answer choice. Laggard means a person who makes slow progress and falls behind others.
(a) hasty- done with excessive speed or urgency; hurried.
(b) sluggard- a lazy, sluggish person.
(c) idler- a person who avoids work or spends time in an aimless or lazy way.
(d) loafer- a person who avoids work and spends their time idly.

## S63. Ans.(c)

Sol. The given sentence states that a committee will be formed by the Tamil Nadu government to monitor social justice in education, employment, postings, promotions, and appointments. Therefore, 'monitor' is the most suitable option to fill in the given blank.
(a) flout- openly disregard (a rule, law, or convention).
(b) abandon- cease to support or look after (someone); desert.
(c) monitor- observe and check the progress or quality of (something) over a period of time.
(d) surpass- more than what is needed or used; excess.
(e) encounter- unexpectedly be faced with or experience (something hostile or difficult).

## S64. Ans.(b)

Sol. The given sentence states that Chief Minister M.K. Stalin announced on Thursday, the centenary of the first "Communal G.O." issued by the Justice Party government in the Madras Presidency, that the Tamil Nadu government will form a commission to monitor social justice in education, employment, postings, promotions, and appointments. Therefore, with reference to the context of the given sentence, 'issued' is the most suitable option to fill in the given blank.
(a) regained- obtain possession of (something, typically a quality or ability) again after losing it.
(b) issued- formally send out or make known.
(c) countered- respond to hostile speech or action.
(d) abducted- take (someone) away illegally by force or deception; kidnap.
(e) eliminated- completely remove or get rid of (something).

## S65. Ans.(e)

Sol. The given sentence states that the [community reservation] scale is legally available to ensure social equity. Therefore, 'ensure' is the most suitable option to fill in the given blank.
(a) overhaul- a thorough examination of machinery or a system.
(b) mitigate- make (something bad) less severe, serious, or painful.
(c) exclude- deny (someone) access to a place, group, or privilege.
(d) eradicate- destroy completely; put an end to.
(e) ensure- make certain that (something) will occur or be the case.

## S66. Ans.(c)

Sol. The given sentence states that this group of bureaucrats, educators, and legal experts would recommend appropriate measures if the norms were not followed. Therefore, 'recommend' is the most suitable option to fill in the given blank.
(a) compliance- the action or fact of complying with a wish or command.
(b) rectified- purify or refine (a substance) by repeated or continuous distillation.
(c) recommend- commend or entrust someone or something to (someone).
(d) coveted- yearn to possess (something, especially something belonging to another).
(e) marginal- relating to or at the edge or margin.

## S67. Ans.(b)

Sol. The given sentence states that Justice Cheema, who had appealed his premature dismissal from the post on September 10 , will be relieved by the reinstatement. Therefore, with reference to the context of the given sentence, 'premature' is the most suitable option to fill in the given blank.
(a) reconcile- restore friendly relations between.
(b) premature- occurring or done before the usual or proper time; too early.
(c) active- engaging or ready to engage in physically energetic pursuits.
(d) suppressed- forcibly put an end to.
(e) mature- fully developed physically; full-grown.

## S68. Ans.(b)

Sol. Statement (D) will be the introductory sentence as it best describes the theme of the paragraph by stating that on Thursday, Chief Minister M.K. Stalin announced the installation of a screen in his Secretariat office. Now, statement (D) will be followed by statement (B) as it explains the purpose of the installation of the screen. Further, statement (B) will be followed by statement (A) as it explains that the Tamil Nadu e-Governance Agency will create a dashboard for the Chief Minister to use to keep track of the implementation on a daily basis. Now, statement (A) will be followed by statement (F) as it describes that once a week, the Chief Minister would review the status of the physical and financial goals. Finally, statement ( E ) will be the concluding one as it explains who will be the coordinator of the screen. Thus, the correct rearrangement of the sentences would be DBAFE. While statement ( $C$ ) is the odd one as it doesn't fit with the context of the paragraph.

## S69. Ans.(c)

Sol. Statement (D) will be the introductory sentence as it best describes the theme of the paragraph by stating that on Thursday, Chief Minister M.K. Stalin announced the installation of a screen in his Secretariat office. Now, statement (D) will be followed by statement (B) as it explains the purpose of the installation of the screen. Further, statement (B) will be followed by statement (A) as it explains that the Tamil Nadu e-Governance Agency will create a dashboard for the Chief Minister to use to keep track of the implementation on a daily basis. Now, statement (A) will be followed by statement (F) as it describes that once a week, the Chief Minister would review the status of the physical and financial goals. Finally, statement ( E ) will be the concluding one as it explains who will be the coordinator of the screen. Thus, the correct rearrangement of the sentences would be DBAFE. While statement ( $C$ ) is the odd one as it doesn't fit with the context of the paragraph.

## S70. Ans.(d)

Sol. Statement (D) will be the introductory sentence as it best describes the theme of the paragraph by stating that on Thursday, Chief Minister M.K. Stalin announced the installation of a screen in his Secretariat office. Now, statement (D) will be followed by statement (B) as it explains the purpose of the installation of the screen. Further, statement (B) will be followed by statement (A) as it explains that the Tamil Nadu e-Governance Agency will create a dashboard for the Chief Minister to use to keep track of the implementation on a daily basis. Now, statement (A) will be followed by statement (F) as it describes that once a week, the Chief Minister would review the status of the physical and financial goals. Finally, statement ( E ) will be the concluding one as it explains who will be the coordinator of the screen. Thus, the correct rearrangement of the sentences would be DBAFE. While statement ( $C$ ) is the odd one as it doesn't fit with the context of the paragraph.

## S71. Ans.(a)

Sol. Statement (D) will be the introductory sentence as it best describes the theme of the paragraph by stating that on Thursday, Chief Minister M.K. Stalin announced the installation of a screen in his Secretariat office. Now, statement (D) will be followed by statement (B) as it explains the purpose of the installation of the screen. Further, statement (B) will be followed by statement (A) as it explains that the Tamil Nadu e-Governance Agency will create a dashboard for the Chief Minister to use to keep track of the implementation on a daily basis. Now, statement (A) will be followed by statement (F) as it describes that once a week, the Chief Minister would review the status of the physical and financial goals. Finally, statement ( E ) will be the concluding one as it explains who will be the coordinator of the screen. Thus, the correct rearrangement of the sentences would be DBAFE. While statement (C) is the odd one as it doesn't fit with the context of the paragraph.

## S72. Ans.(d)

Sol. Statement (D) will be the introductory sentence as it best describes the theme of the paragraph by stating that on Thursday, Chief Minister M.K. Stalin announced the installation of a screen in his Secretariat office. Now, statement (D) will be followed by statement (B) as it explains the purpose of the installation of the screen. Further, statement (B) will be followed by statement (A) as it explains that the Tamil Nadu e-Governance Agency will create a dashboard for the Chief Minister to use to keep track of the implementation on a daily basis. Now, statement (A) will be followed by statement (F) as it describes that once a week, the Chief Minister would review the status of the physical and financial goals. Finally, statement ( E ) will be the concluding one as it explains who will be the coordinator of the screen. Thus, the correct rearrangement of the sentences would be DBAFE. While statement (C) is the odd one as it doesn't fit with the context of the paragraph.

## S73. Ans.(c)

Sol. The correct pair of synonym and antonym is 'keen, mild'. Profound means a state, quality, or emotion which is very great or intense. Keen means an intense activity or feeling, whereas, mild means not intense or extreme. Therefore, it can be seen that option (c) is the most suitable answer choice.
Intense- of extreme force, degree, or strength.
Extreme- reaching a high or the highest degree; very great.
Earnest- resulting from or showing sincere and intense conviction.
Fervent- having or displaying a passionate intensity.
Hasty- done with excessive speed or urgency; hurried.
Fragile- easily destroyed or threatened.
Desire- strongly wish for or want (something).
Arise- of a problem, opportunity, or situation) emerge; become apparent.

## S74. Ans.(e)

Sol. The correct pair of synonym and antonym is 'seize, release'. Abduct means taking someone away by force or deception.
Seize means take forcible possession of, whereas, release means allow (something) to move, act, or flow freely. Therefore, it can be seen that option (e) is the most suitable answer choice.
Endure- suffer (something painful or difficult) patiently.
Snatch- quickly seize (something) in a rude or eager way.
Carry- support and move (someone or something) from one place to another.
Devastate- destroy or ruin.
Kidnap- abduct (someone) and hold them captive, typically to obtain a ransom.
Capture- take into one's possession or control by force.
Stagger- walk or move unsteadily, as if about to fall.
Daunt- make (someone) feel intimidated or apprehensive.

## S75. Ans. (d)

Sol. The correct pair of synonym and antonym is 'condemn, praise'. Denounce means publicly declaring to be wrong or evil. Condemn means officially declare (something) to be unfit for use, whereas, praise means express warm approval or admiration of. Therefore, it can be seen that option (d) is the most suitable answer choice.
Rescue- save (someone) from a dangerous or difficult situation.
Adjudicate- make a formal judgment on a disputed matter.
Procure- an established or official way of doing something.
Devastate- destroy or ruin.
Applaud- show approval or praise by clapping.
Encourage- give support, confidence, or hope to (someone).
Retrieve- get or bring (something) back from somewhere.
Prospect- the possibility or likelihood of some future event occurring.

## S76. Ans.(d)

Sol. The correct word to fill all the three blanks is 'acceleration' which means an increase in speed or rate. All the other given words are grammatically and contextually incorrect. Hence, option (d) is the right answer choice.
(a) renunciation- the formal rejection of something, typically a belief, claim, or course of action.
(b) proximity- nearness in space, time, or relationship.
(c) retardation- the action of delaying or slowing the progress or development of something.
(d) acceleration- increase in speed or rate.

## S77. Ans. (b)

Sol. The correct word to fill all three blanks is 'extinct' which means no longer in existence. All the other given words are grammatically and contextually incorrect. Hence, option (b) is the right answer choice.
(a) expel- officially make (someone) leave a school or other organization.
(b) extinct- no longer in existence.
(c) deduce- arrive at (a fact or a conclusion) by reasoning; draw as a logical conclusion.
(d) fragile- (of an object) easily broken or damaged.

## S78. Ans.(a)

Sol. The correct word to fill all the three blanks is 'incarnation' which means a person who embodies in the flesh a deity, spirit, or quality. All the other given words are grammatically and contextually incorrect. Hence, option (a) is the most suitable answer choice.
(a) incarnation- a person who embodies in the flesh a deity, spirit, or quality.
(b) revival- an instance of something becoming popular, active, or important again.
(c) disaster- an event or fact that has unfortunate consequences.
(d) endanger- put (someone or something) at risk or in danger.

## S79. Ans.(c)

Sol. The correct word to fill all three blanks is 'verdict' which means a decision on an issue of fact in a civil or criminal case or an inquest. All the other given words are grammatically and contextually incorrect. Hence, option (c) is the most suitable answer choice.
(a) contemplation- the action of looking thoughtfully at something for a long time.
(b) response- a verbal or written answer.
(c) verdict- a decision on an issue of fact in a civil or criminal case or an inquest.
(d) culprit- a person who is responsible for a crime or other misdeed.

## S80. Ans.(e)

Sol. After reading the given passage thoroughly, we can infer that all the given statements will result in the benefits of the technologies being developed by the Indian Space Research Organisation (ISRO). Hence, option (e) is the right answer choice.

## S81. Ans.(d)

Sol. After reading the given passage thoroughly, we can infer that only (a) and (b) will be the impacts of the technologies that the Indian Space Research Organisation (ISRO) is currently working on. While option (c) is incorrect as the given passage states that technological development will help ISRO save money. Hence, option (d) is the right answer choice.

## S82. Ans.(c)

Sol. Among the given options, the inference could be drawn from the statement given in option (c) which states that the ISRO's technologies will enable India to be reliant, competent, and sustainable in space exploration. Hence, option (c) is the right answer choice.

## S83. Ans.(b)

Sol. Sol. The correct combination to form contextually and grammatically correct sentences are 'BD2 and A1F'. No other combination makes contextually and grammatically correct sentences. Hence, option (b) is the right answer choice. The sentences thus formed would be as follows:
"Tamil Nadu registered a significant increase in the number of criminal cases against women and children." "The government should send out messages through the available social media platforms to educate parents."

## S84. Ans.(c)

Sol. The correct combination to form a contextually and grammatically correct sentence is 'B3E'. No other combination makes a contextually and grammatically correct sentence. Hence, option (c) is the most suitable answer choice. The sentence thus formed would be, "The supreme court stated that it was not supporting the government by staying the High Court order."

## S85. Ans.(a)

Sol. The correct combination to form a contextually and grammatically correct sentence is 'BE2'. No other combination makes a contextually and grammatically correct sentence. Hence, option (a) is the most suitable answer choice.
The sentence thus formed would be, "The government has also nominated 50 members as special invitees of the TTD Trust Board."

## S86. Ans.(e)

Sol. There is no correct combination of phrases that could make a grammatically correct and contextually meaningful sentence. Hence, option (e) is the right answer choice.

## S87. Ans.(c)

Sol. The correct word to replace all three highlighted words to make sentences contextually and grammatically correct is "consequence" which means as a result or effect. Hence, option (c) is the right answer choice. The sentences thus formed would be:
(I) She was found guilty, and as a consequence, she lost her job.
(II) His death was totally unexpected and, in consequence, no plans had been made for his replacement.
(III) We failed to predict the consequences of our actions.
(a) contradiction- a situation in which inconsistent elements are present.
(b) resilience- the capacity to recover quickly from difficulties; toughness.
(c) consequence- as a result or effect.
(d) impediment- a hindrance or obstruction in doing something.

## S88. Ans. (b)

Sol. The correct word to replace all three highlighted words to make sentences contextually and grammatically correct is "renovate" which means restore (something old, especially a building) to a good state of repair. Hence, option (b) is the right answer choice.
The sentences thus formed would be:
(I) The government has decided to renovate the old Campus to its former glory.
(II) We decided to buy an old house and renovate it ourselves.
(III) She helped several elderly residents get grants to renovate their homes.
(a) forbid- refuse to allow (something).
(b) renovate- restore (something old, especially a building) to a good state of repair.
(c) validate- check or prove the validity or accuracy of.
(d) abolish- formally put an end to (a system, practice, or institution).

## S89. Ans. (d)

Sol. The correct word to replace all three highlighted words to make sentences contextually and grammatically correct is "curtail" which means reduce in extent or quantity; impose a restriction on. Hence, option (d) is the right answer choice. The sentences thus formed would be:
(I) The new law will curtail police powers to harass the general public unnecessarily.
(II) The latest COVID-19 guidelines will curtail the spread of infection among people.
(III) The President has remained mute about plans to curtail the number of immigrants.
(a) condemn- express complete disapproval of; censure.
(b) rejuvenate- give new energy or vigor to; revitalize.
(c) surpass- exceed; be greater than.
(d) curtail- reduce in extent or quantity; impose a restriction on.

## S90. Ans.(c)

Sol. The correct word to replace all three highlighted words to make sentences contextually and grammatically correct is "consistent" which means acting or done in the same way over time, especially so as to be fair or accurate. Hence, option (c) is the right answer choice.

The sentences thus formed would be:
(I) She wanted to teach her children to remain consistent in their dealings.
(II) He has been Milan's most consistent player this season.
(III) Your conduct is not consistent with what you say.
(a) hinder- make it difficult for (someone) to do something or for (something) to happen.
(b) expulsion- the action of forcing someone to leave an organization.
(c) consistent- acting or done in the same way over time, especially so as to be fair or accurate.
(d) repulsive- arousing intense distaste or disgust.

## S91. Ans.(e)

Sol. Among the given options, both (a) \& (c) are correct. While statement (b) is incorrect based on the information provided in the given passage. Hence, option (e) is the right answer choice.
Refer to the fourth line of the first paragraph, "However, a recent report, "Assessment of Climate Change over the Indian Region" by the Ministry of Earth Sciences (MoES) reveals that India has warmed up $0.7^{\circ} \mathrm{C}$ during 1901-2018. Heatwaves continued to increase with no signs of diminishing greenhouse gas emissions despite lower activity since the novel coronavirus pandemic. Prolonged exposure to heat is becoming detrimental to public health, especially the poor unable to afford support for coping with the heat."

## S92. Ans.(c)

Sol. Among the given alternatives, only option (c) is incorrect about the International Solar Alliance (ISA) based on the information provided in the given passage. While the rest of the statements are correct. Hence, option (c) is the right answer choice.
Refer to the concluding lines of the second paragraph, "India cofounded with France at COP21, in 2015, the International Solar Alliance (ISA) - a coalition of about 70 countries with solar rich resources - which aims at mobilizing USD1 trillion in investments for the deployment of solar energy at affordable prices by 2030. Despite leading ISA, India performed the least in renewable energy according to the CCPI's performance of India."

## S93. Ans.(d)

Sol. As per the information provided in the concluding lines of the third paragraph, India can use its capabilities to strengthen its global positioning by setting a positive climate target for the rest of the world to follow. Hence, it can be concluded that option (d) is the right answer choice.

## S94. Ans.(c)

Sol. Among the given words, only 'recovering' can be used to fill the given blank. The concerned sentence also states that the super-cyclone "Cyclone Amphan", which slammed India in 2020, cost more than USD8 billion at a time when the country was still recovering from the "June-October Monsoon Flooding," which cost USD5 billion and claimed the lives of about 1,600 people. Hence, option (c) is the right answer choice.
(a) mitigating- having the effect of making something bad less severe, serious, or painful.
(b) stimulating- encourage the development of or increased activity in (a state or process).
(c) recovering- return to a normal state of health, mind, or strength.
(d) converging- (of a series) approximate in the sum of its terms towards a definite limit.

## S95. Ans.(d)

Sol. Among the given options, 'persisting' is the most appropriate antonym (opposite in meaning) of the word"DESERTING". Hence, option (d) is the right answer choice. Deserting means to leave in a difficult situation; (of people) leave (a place), causing it to appear empty.
(a) evacuating-remove (someone) from a place of danger to a safer place.
(b) abandoning- cease to support or look after (someone); desert.
(c) relinquishing- voluntarily cease to keep or claim; give up.
(d) persisting- continue to exist; be prolonged.

## S96. Ans.(a)

Sol. In part (A), 'questioned' should be replaced with 'informed' as it is clearly visible that the CBI told the High Court about the incident. In part (B), 'involve' should be replaced with 'involving'. In part (C), 'for' should be replaced with 'of'. So, only part (D) is free from any error. Hence, option (a) is the right answer choice.

## S97. Ans.(e)

Sol. There is no error in any part of the given sentence. Hence, option (e) is the right answer choice.

## S98. Ans.(c)

Sol. In part (B), 'in' should be replaced with 'of'. In part (C), 'speculated' should be replaced with 'speculations'. In part (D), 'happened' should be replaced with 'happen' as could is always followed by the main verb that stays in its base form. So, only part (A) is free from any error. Hence, option (c) is the right answer choice.

## S99. Ans.(d)

Sol. In part (A), 'approve' should be replaced with 'approved'. In part (B), 'in' should be replaced with 'to'. In part (D), 'for' should be replaced with 'under'. So, only part (C) is free from any error. Hence, option (d) is the right answer choice.

## S100. Ans.(c)

Sol. In part (B), 'were' should be replaced with 'was'. In part (C), 'send' should be replaced with 'sent'. In part (D), 'flooding' should be replaced with 'flooded'. So, only part (A) is free from any error. Hence, option (c) is the right answer choice.

## S101. Ans.(a)

Sol. National Women's Day in India is observed on 13th February each year to honour the birth anniversary of Sarojini Naidu.
This day celebrates her contributions towards establishing women's rights in the patriarchal Indian society. Sarojini Naidu, also known as the "Nightingale of India," played a significant role in the Indian freedom struggle and advocated for women's emancipation.
13 February 2024 marks the 145th birth anniversary of Sarojini Naidu.

## S102. Ans.(b)

Sol. In the context of the Reserve Bank of India (RBI), 'ATS' stands for Application Tracking System.
It is a system hosted on the public website of the RBI, developed for members of the public to submit any individual application to the RBI and keep track of the status of its disposal thereafter.

## S103. Ans.(d)

Sol. The Swatantra Yuva Udyami Scheme (SWAYAM), approved by the Odisha cabinet, is designed to support unemployed and underemployed youth in the state by providing them with an opportunity to start their own business or expand existing ones.
Eligible youths within the age group of 18-35, residing in both rural and urban areas of Odisha, can avail of an interest-free loan of up to Rs 1 lakh under this scheme.

## S104. Ans.(b)

Sol. The Reserve Bank of India (RBI) has issued a draft framework that lays down broad functions, governance standards, and eligibility criteria for setting up a Self-Regulatory Organization for Fintech Companies (SRO-FT). The main idea behind the framework is to empower the fintech sector to function and innovate responsibly even in the absence of formal regulations.
The SRO-FT should be responsible for addressing cases of grievance, conflict of interest, or dispute among its members.

## S105. Ans.(d)

Sol. Adani Defence and Aerospace unveiled India's first private sector ammunition-missile manufacturing complex in Kanpur, Uttar Pradesh (UP). Spread over 500 acres, this complex is set to become South Asia's largest integrated ammunition manufacturing complex, marking a significant milestone in India's defence manufacturing capabilities.

## S106. Ans.(d)

Sol. The ambitious target has been set to ensure all villages across the country reach ODF Plus status by the year 2025.

India has made significant progress under the Swachh Bharat Mission (Grameen) Phase II, with 75\% of villages achieving Open Defecation Free (ODF) Plus status.
This initiative marks a critical step towards enhancing sanitation and hygiene standards in rural areas, further promoting public health and environmental sustainability.

## S107. Ans.(c)

Sol. REC Limited (Formerly Rural Electrification Corporation Limited) has inked a Memorandum of Understanding (MoU) with Punjab National Bank (PNB) for a collaborative effort aimed at identifying potential funding opportunities within the Power Sector and Infrastructure \& Logistics Sector through a consortium arrangement.
This partnership is set to jointly provide financing amounting to Rs. 55,000 crores over the next three years, indicating a significant commitment to supporting infrastructure development in these critical sectors of the Indian economy.

## S108. Ans.(e)

Sol. Waheeda Rehman was honoured with the Dada Saheb Phalke Award for the year 2021 in recognition of her lifetime contribution to Indian cinema.
Waheeda Rehman, a celebrated actress known for her versatility and iconic roles in Hindi cinema, has made significant contributions to the film industry, making her a deserving recipient of this prestigious award.

## S109. Ans.(d)

Sol. The 'Build for Billions' startup accelerator program, centered on financial inclusion for the informal economy, has been launched by DLabs at the Indian School of Business (ISB) in partnership with the Reserve Bank Innovation Hub (RBIH) and Union Bank of India.

## S110. Ans.(d)

Sol. Greenwashing is the process through which companies convey a false impression or provide misleading information about how environmentally friendly their products or actions are.
This can involve exaggerating the environmental benefits or minimally impacting their products or practices to appear more sustainable than they actually are, often as a marketing strategy to attract eco-conscious consumers.

## S111. Ans.(b)

Sol. HDFC Bank, recognized as India's largest private sector lender, is actively seeking approval for a banking license in Singapore.
This strategic move is aimed at tapping into the Indian diaspora residing in Singapore, focusing on savings and term deposits, alongside the opportunity to cross-sell various banking products, including mortgages.

## S112. Ans.(c)

Sol. These awards will be handed out across more than $\mathbf{2 0}$ categories, highlighting a broad spectrum of digital creativity and innovation within the country's vibrant online community.
The Government of India, via its citizen engagement platform MyGov, has launched the first-ever 'National Creators Award' aimed at acknowledging and celebrating the efforts of modern influencers, and content creators, and highlighting the growth of India's digital creator economy.
This initiative underscores the government's recognition of the significant role that digital creators play in shaping online culture and information dissemination.

## S113. Ans.(d)

Sol. The Defence Acquisition Council (DAC), chaired by Defence Minister Rajnath Singh, approved Acceptance of Necessity (AoNs) for several capital acquisition proposals valued at Rs 84,560 crore.
The DAC has accorded AoN under Buy \{Indian-Indigenously Designed Developed and Manufactured (IDDM)\} category for procurement of a new generation of Anti-tank mines having seismic sensors and provision of remote deactivation with additional safety features.

## S114. Ans.(c)

Sol. Isha Ambani was honoured with a special award at the Lokmat Maharashtrian of the Year 2024 (LMOTY 2024) ceremony in Mumbai, recognizing her significant contributions and achievements.
The LMOTY Awards are a prestigious event that celebrates outstanding individuals in various fields who have made a notable impact on the state of Maharashtra and beyond.

## S115. Ans.(c)

Sol. The Kalpana Fellowship, named in honor of Kalpana Chawla, is India's first-of-its-kind fellowship program dedicated exclusively to women engineers in the space sector.
Launched by Skyroot Aerospace Private Limited, a Hyderabad-based space startup, the one-year fellowship program is designed to empower women engineers by providing them with a monthly stipend, experiential learning opportunities, and mentorship from industry veterans.

## S116. Ans.(d)

Sol. The Government of India signed loan agreements with the Japan International Cooperation Agency (JICA) to provide Japanese Official Development Assistance (ODA) loans of up to a total of 232,209 million yen for nine projects.
This financial collaboration aims to support various developmental projects in India, enhancing infrastructure, healthcare, and environmental conservation efforts, among others.
S117. Ans.(a)
Sol. Dr Arvind Panagariya, who served as the Vice-Chairman of the NITI Aayog from 2015 to 2017, has been appointed as the Chairman of the 16th Finance Commission of India.
The Finance Commission is a constitutionally mandated body that is established to define the financial relations between the central government and the states.
Dr. Panagariya's leadership is expected to bring valuable insights and expertise to the Commission, drawing from his extensive experience in economic policy and academic research.

## S118. Ans.(e)

Sol. Campa, the soft drink brand, has recently been brought back into the market by Reliance Industries.
This move aligns with BCCI's announcement of Campa and Atomberg Technologies as official partners for the India Home Cricket Season 2024-26, marking a significant moment in the brand's revival and its association with major sporting events in India.

## S119. Ans.(b)

Sol. Cape Horn is a well-known rocky headland located at the southernmost tip of South America, within the territory of Chile.
It is notorious for its treacherous maritime conditions, making it one of the most challenging nautical routes before the construction of the Panama Canal.

## S120. Ans.(d)

Sol. P Santhosh has been appointed as the Managing Director (MD) and Chief Executive Officer (CEO) of National Asset Reconstruction of India Limited (NARCL) and is concurrently serving as the Chief General Manager (CGM) of Canara Bank.

## S121. Ans.(a)

Sol. Punjab has become the first state in India to achieve the milestone of mapping all 784 accident black spots on the mobile application "Mappls".
This initiative, undertaken in collaboration with C. E. Info Systems Limited (MapmyIndia), is aimed at enhancing road safety by providing real-time navigation and alerts to drivers, thereby potentially reducing the incidence of road accidents in these high-risk areas.

## S122. Ans.(c)

Sol. The Indian Science Technology and Engineering Facilities Map (I-STEM), a national web portal designed to facilitate the sharing of R\&D facilities, was formally launched in January 2020 by the Honorable Prime Minister Shri Narendra Modi.
This platform aims to enhance the accessibility and efficiency of scientific research and development in India by connecting researchers and resources nationwide.

S123. Ans.(d)

Sol. The 5th International and 44th All India Criminology Conference, along with the inauguration of the Centre of Excellence in Digital Forensics at the National Forensic Science University (NFSU), took place in Gandhinagar, Gujarat.
This event, addressed and inaugurated by Union Minister Amit Shah, signifies the advancement in forensic science and criminology education and research in India, with NFSU at the forefront of these efforts in Gandhinagar.

## S124. Ans.(d)

Sol. Crompton Greaves Consumer Electricals Ltd. (CGCEL), known for its significant contributions to the consumer electrical industry in India, has been recognized with the prestigious National Energy Conservation Award 2023.

The recognition was bestowed by the President of India, Droupadi Murmu, and the Ministry of Power, represented by the Bureau of Energy Efficiency (BEE), on the occasion of National Energy Conservation Day.

## S125. Ans.(b)

Sol. Tata Projects Limited has been awarded the prestigious Engineering News-Record 2023 - Global Best Projects Awards for the construction of the New Parliament Building.
This accolade recognizes the company's outstanding achievements in project management, innovation, and engineering excellence in creating a landmark structure that plays a significant role in India's democratic and architectural heritage.

## S126. Ans.(d)

Sol. FEMA is short for Foreign Exchange Management Act.
It was introduced to update the laws around foreign exchange in India, aiming to make it easier for external trade and payments and to keep the foreign exchange market in India orderly.

## S127. Ans.(c)

Sol. The theme of this year's New Delhi World Book Fair, as highlighted by Union Minister Shri Dharmendra Pradhan during the inauguration of its 52nd edition, is 'Multilingual India: A Living Tradition'.
This theme celebrates India's linguistic diversity and global literary traditions, emphasizing the country's rich heritage in languages and literature.

## S128. Ans.(c)

Sol. The government has estimated India's fiscal deficit to be $\mathbf{5 . 1 \%}$ of the gross domestic product (GDP) for the financial year 2024-2025 (FY25).
This fiscal projection was announced by Finance Minister Nirmala Sitharaman during her Interim Budget 2024-25 speech, highlighting the government's financial planning and economic strategies for the upcoming fiscal year.

## S129. Ans.(e)

Sol. The Ministry of Tourism has organized the "Bharat Parv", part of the Republic Day celebrations, from 23-31 January at the Lawns and Gyan Path in front of the historic Red Fort in Delhi.
Shri G.K Reddy unveiled the Incredible India digital calendar of the Ministry of Tourism at the event.

## S130. Ans.(c)

Sol. The Union Cabinet has given its approval for the establishment of the International Big Cat Alliance (IBCA) with its headquarters in India, along with a one-time budgetary support of Rs. 150 crore for a period of five years from 2023-24 to 2027-28.
This initiative aims to promote the conservation of big cats globally.

## S131. Ans.(a)

Sol. The headquarters of the Financial Action Task Force (FATF) is located in Paris, France.
Global anti-money laundering watchdog the Financial Action Task Force (FATF) removed the United Arab Emirates from its "grey list" of countries subject to increased monitoring.

## S132. Ans.(b)

Sol. NITI Aayog CEO B V R Subrahmanyam has stated that the latest consumer expenditure survey indicates that poverty in the country has come down to five percent, highlighting an increase in prosperity across both rural and urban areas.

## S133. Ans.(b)

Sol. 'Maitri Diwas' is observed annually by India on 6th December to celebrate its diplomatic relations with Bangladesh.
The day marks the solidification of bilateral ties between the two nations, commemorating the day in 1971 when India formally recognized Bangladesh.
This recognition played a crucial role in Bangladesh's war of independence, and 'Maitri Diwas' signifies the enduring friendship and cooperation between India and Bangladesh.

## S134. Ans.(c)

Sol. India and Colombia signed a Memorandum of Understanding (MoU) on Cooperation in the field of Sharing Successful Digital solutions Implemented at Population Scale for Digital Transformation.
This MoU aims to foster collaboration between the two countries in the digital domain, enhancing digital transformation initiatives.
It was signed between the Ministry of Electronics and Information Technology of India and the Information Technologies and Communications of Colombia.

## S135. Ans.(d)

Sol. Accenture has recently inaugurated a state-of-the-art Generative AI Studio in Bengaluru, India. This strategic move is aimed at enhancing the company's capabilities in the rapidly evolving realm of artificial intelligence, positioning Bengaluru as a key hub for AI innovation.

## S136. Ans.(e)

Sol. Indian-born British-American author Salman Rushdie received the first-ever "Lifetime Disturbing the Peace Award" presented by the Vaclav Havel Center in Manhattan, New York, USA.
This award recognizes Rushdie's significant contributions to literature and his courage in the face of threats to freedom of expression.

S137. Ans.(d)
Sol. HyderabadDLabs at the Indian School of Business (ISB) launched the 'Build for Billions' startup accelerator programme, themed around financial inclusion for the informal economy, in partnership with Reserve Bank Innovation Hub (RBIH) and Union Bank of India.
This collaboration aims to support startups that are focused on creating solutions to enhance financial inclusion within the informal sector.

## S138. Ans.(a)

Sol. Acclaimed Bollywood actor Pankaj Tripathi was appointed as the 'UPI Safety Ambassador' by the National Payments Corporation of India (NPCI).
This initiative aims to enhance safety awareness among users of digital payment platforms, leveraging Tripathi's widespread appeal and credibility.

## S139. Ans.(a)

Sol. The Indian Navy and the Royal Thai Navy conducted their first bilateral exercise, named 'Ex-Ayutthaya', from December 20th to 23rd, 2023.
Indigenously built Indian Naval ships Kulish and IN LCU 56 participated in the inaugural edition of the exercise. The RTN side was represented by His Thai Majesty's Ship (HTMS) Prachuap Khiri Khan.
The 36th edition of India-Thailand Coordinated Patrol (Indo-Thai CORPAT) was also conducted along with the maiden bilateral exercise. Maritime Patrol Aircraft from both navies participated in the Sea Phase of the exercise.

## S140. Ans.(c)

Sol. Ravi Kumar Jha has been appointed as the Managing Director (MD) and Chief Executive Officer (CEO) of LIC Mutual Fund Asset Management Ltd (LIC AMC), the investment manager of LIC Mutual Fund (LICMF).

## S141. Ans.(b)

Sol. C-DOT, the premier Telecom R\&D Centre of the Department of Telecommunications (DoT), Government of India, and Indian Institute of Technology, Roorkee (IIT-R) signed an agreement for "Developing a 140 GHz Fully Integrated Transmitter \& Receiver Module for 6G and Beyond".
The objective of this agreement is to develop a 140 GHz Fully Integrated Transmitter and Receiver Module to enable applications for 6G and beyond.
This chip shall support data rates of up to several gigabits per second, enabling high-speed data transfer with a chip or between chips".

## S142. Ans.(d)

Sol. The "Indus Appstore" was launched by PhonePe as a new initiative to offer a platform for app discovery in 12 Indian languages, with no app listing fees for one year, until April 1st, 2025.
This move by PhonePe marks a significant development in India's digital landscape, providing a local and scalable alternative to existing app stores, and supporting developers with more favorable terms

## S143. Ans.(d)

Sol. Magnetic Ink Character Recognition (MICR) is a 9-digit code utilized primarily by the banking industry to facilitate the processing and clearance of cheques and other documents.
This unique code helps in accurately identifying the specific branch of a bank, ensuring smooth financial transactions. The first three digits represent the city code of the bank branch - generally the pin code initials, The next three digits represent the bank code, and The last three digits represent the bank branch.

## S144. Ans.(c)

Sol. The Insurance Regulatory and Development Authority of India (IRDAI) has committed to enable 'Insurance for All' by the year 2047.
This initiative aims to ensure that every citizen has an appropriate life, health, and property insurance cover and that every enterprise is supported by appropriate insurance solutions.
The goal is also to make the Indian insurance sector globally attractive, marking a significant stride towards comprehensive financial security and global competitiveness.

## S145. Ans.(d)

Sol. The Ministry of Heavy Industries (MHI) constituted a committee under the chairmanship of Hanif Qureshi to examine the demand for including more components in the Production Linked Incentive (PLI) Scheme for Automobile and Auto Component Industry (PLI-AUTO).
This initiative reflects the government's effort to further boost the growth and development of the automotive and auto component industry in India.

## S146. Ans.(a)

Sol. The Pradhan Mantri Ujjwala Yojana was launched by Prime Minister Narendra Modi on 1 May 2016.
The recent approval by the Union Cabinet for the expansion of this scheme aims to release an additional 75 lakh LPG connections, thereby increasing the total number of beneficiaries to 10.35 crore.

## S147. Ans.(d)

Sol. The 'Shar Amartala Torgya' festival is an annual event celebrated in Arunachal Pradesh. This festival holds great cultural significance in the region and is celebrated at Thegtse Sangye Choi Long monastery.

## S148. Ans.(a)

Sol. Shubman Gill was awarded the best men's international cricketer (Polly Umrigar Award) of 2022-23, and Deepti Sharma won the award for the best women's international cricketer of 2022-23 at the BCCI Awards (Naman Awards) 2024 in Hyderabad, Telangana.

## S149. Ans.(c)

Sol. The surrender value refers to the amount offered to the policyholder by the insurance company when they decide to terminate the policy before it reaches its maturity date.
This value is usually a portion of the premiums paid, minus any fees or previous outstanding loans against the policy. It provides policyholders with an option to access funds in case they are unable to continue with the policy.

## S150. Ans.(d)

Sol. Valmiki Tiger Reserve is located in the Indian state of Bihar.
It is situated in the northwestern part of Bihar, bordering Nepal, and is the only tiger reserve in the state. The reserve encompasses the Valmiki Sanctuary and provides a diverse habitat for various wildife species, including the Bengal tiger, Indian rhinoceros, and Asian elephant, among others.

## S151. Ans.(b)

## Sol.

## In 2017

Let number of males and females be x and y respectively.
ATQ.
$x+y=1200$
$x-y=650$
From (i) and (ii)
$x=925 \quad y=275$
Similarly

| Year | Total <br> number of <br> employes | Number of <br> male <br> employees | Number of <br> female <br> employees |
| :--- | :--- | :--- | :--- |
| 2017 | 1200 | 925 | 275 |
| 2018 | 950 | 600 | 350 |
| 2019 | 800 | 500 | 300 |
| 2020 | 1450 | 950 | 500 |
| 2021 | 1600 | 1050 | 550 |



Required percentage $=\frac{550-500}{500} \times 100=10 \%$

## Sol.

In 2017
Let number of males and females be x and y respectively. ATQ.
$x+y=1200$
$x-y=650$
From (i) and (ii)
$x=925 \quad y=275$
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| 2017 | 1200 | 925 | 275 |
| 2018 | 950 | 600 | 350 |
| 2019 | 800 | 500 | 300 |
| 2020 | 1450 | 950 | 500 |
| 2021 | 1600 | 1050 | 550 |

Number of males work in H.R. in $2020=950 \times \frac{11}{19}=550$
Number of males work in Sales in $2020=950 \times \frac{8}{19}=400$
Number of females work in H.R. in $2020=500 \times \frac{14}{25}=280$
Number of females work in Sales in $2020=500 \times \frac{11}{25}=220$
Req. difference $=(550+280)-(400+220)=210$

## S153. Ans.(d)

## Sol.

## In 2017

Let number of males and females be x and y respectively. ATQ.
$x+y=1200$
$x-y=650$
From (i) and (ii)
$x=925 \quad y=275$
Similarly

| Year | Total <br> number of <br> employees | Number of <br> male <br> employees | Number of <br> female <br> employees |
| :--- | :--- | :--- | :--- |
| 2017 | 1200 | 925 | 275 |
| 2018 | 950 | 600 | 350 |
| 2019 | 800 | 500 | 300 |
| 2020 | 1450 | 950 | 500 |
| 2021 | 1600 | 1050 | 550 |

Req. ratio $=(600+1050):(275+300)=66: 23$

## S154. Ans.(e)

## Sol.

In 2017
Let number of males and females be $x$ and $y$ respectively.
ATQ.
$x+y=1200 \ldots(i)$
$x-y=650$
From (i) and (ii)
$x=925 \quad y=275$
Similarly

| Year | Total <br> number of <br> employees | Number of <br> male <br> employees | Number of <br> female <br> employees |
| :--- | :--- | :--- | :--- |
| 2017 | 1200 | 925 | 275 |
| 2018 | 950 | 600 | 350 |
| 2019 | 800 | 500 | 300 |
| 2020 | 1450 | 950 | 500 |
| 2021 | 1600 | 1050 | 550 |

Number of female employees in $2022=500 \times \frac{155}{100}=775$
Number of male employees in $2022=950 \times \frac{3}{10}=285$
Total number of employees in $2022=775+285=1060$

## S155. Ans.(b)

## Sol.

In 2017
Let number of males and females be x and y respectively. ATQ.
$x+y=1200 \ldots(i)$
$x-y=650$
From (i) and (ii)
$x=925 \quad y=275$
Similarly

| Year | Total <br> number of <br> employees | Number of <br> male <br> employees | Number of <br> female <br> employees |
| :--- | :--- | :--- | :--- |
| 2017 | 1200 | 925 | 275 |
| 2018 | 950 | 600 | 350 |
| 2019 | 800 | 500 | 300 |
| 2020 | 1450 | 950 | 500 |
| 2021 | 1600 | 1050 | 550 |

Req. average $=\frac{550+350+300}{3}=400$

## S156. Ans.(d)

Sol.
$(19.89 \%$ of 320.02$) \div(7.92 \times 4.12)+?=40.24 \%$ of 1020.25
$(20 \%$ of 320$) \div(8 \times 4)+?=40 \%$ of 1020
$\frac{64}{32}+?=408$
$?=406$

## S157. Ans.(e)

## Sol.

$41.96 \times 9.88-63.02 \div 3.04=$ ? +78.02
$42 \times 10-63 \div 3=$ ? +78
$321=$ ?

## S158. Ans.(d)

## Sol.

$10.14 \times 8.09+5.90$ of $24.92 \%$ of $40.12=$ ?
$10 \times 8+6$ of $25 \%$ of $40=$ ?
$80+60=$ ?
$140=$ ?

## S159. Ans.(a)

## Sol.

$\sqrt{576} \times \sqrt{100}-11 \times(5)^{2}=\sqrt{?}$
$24 \times 10-275=\sqrt{?}$ ?
$35=\sqrt{ }$ ?
$1225=$ ?

S160. Ans.(b)
Sol.


$$
\begin{aligned}
& \frac{3}{10} \times 20+\frac{8}{10} \times 25=\sqrt{?} \\
& 6+20=\sqrt{?} \\
& 676=?
\end{aligned}
$$

## S161. Ans.(b)

## Sol.

Wrong no. $=95$

$$
\begin{gathered}
17+\left(1^{2}-0\right)=18 \\
18+\left(2^{2}-1\right)=21 \\
21+\left(3^{2}-2\right)=28 \\
28+\left(4^{2}-3\right)=41 \\
41+\left(5^{2}-4\right)=62 \\
62+\left(6^{2}-5\right)=93
\end{gathered}
$$

## S162. Ans.(a)

Sol.
Wrong no. $=182$
$106 \times 0.5+1=54$
$54 \times 1+2=56$
$56 \times 1.5+4=88$
$88 \times 2+8=184$
$184 \times 2.5+16=476$
$476 \times 3+32=1460$
S163. Ans.(d)
Sol.
Wrong no. $=160$
$19440 \div 6=3240$
$3240 \div 5=648$
$648 \div 4=162$
$162 \div 3=54$
$54 \div 2=27$
$27 \div 1=27$

## S164. Ans.(a)

## Sol.

Wrong no. $=94$
$91-1^{3}=90$
$90+2^{3}=98$
$98-3^{3}=71$
$71+4^{3}=135$
$135-5^{3}=10$
$10+6^{3}=226$
S165. Ans.(b)
Sol.
Wrong no. $=425.5$
$228 \times 1=228$
$228 \div 2=114$
$114 \times 3=342$
$342 \div 4=85.5$
$85.5 \times 5=427.5$
$427.5 \div 6=71.25$

## S166. Ans.(b)

## Sol.

## Company P

Total bottles sold $=60$
Let marked price and selling price of each bottle is 20 x and 17 x respectively.
ATQ.
$17 x \times 60=5100$
$x=5$
So, marked price and selling price of each bottle is Rs. 100 and Rs. 85 respectively.

Cost price of each bottle $=\frac{100}{125} \times 100=$ Rs. 80
Total cost price of bottles $=80 \times 60=R s .4800$
Total marked price of bottles $=100 \times 60=$ Rs. 6000
Total selling price of bottles $=85 \times 60=$ Rs. 5100

## Company Q

Let cost price of each bottle = Rs. 100 y
Let marked price of each bottle $=$ Rs. 140 y
Let selling price of each bottle $=R s .\left(140 y \times \frac{80}{100}\right)=R s .112 y$
ATQ.
$80 \times(112 y-100 y)=960$
$80 \times 12 y=960$
$y=1$
Total cost price of bottles $=100 \times 80=$ Rs. 8000
Total marked price of bottles $=140 \times 80=R s .11200$
Total selling price of bottles $=112 \times 80=$ Rs. 8960
Req. ratio $=8000: 6000=4: 3$

## S167. Ans.(a)

## Sol.

## Company P

Total bottles sold $=60$
Let marked price and selling price of each bottle is 20 x and 17 x respectively.
ATQ.
$17 x \times 60=5100$
$x=5$
So, marked price and selling price of each bottle is Rs. 100 and Rs. 85 respectively.
Cost price of each bottle $=\frac{100}{125} \times 100=R s .80$
Total cost price of bottles $=80 \times 60=$ Rs. 4800
Total marked price of bottles $=100 \times 60=$ Rs. 6000
Total selling price of bottles $=85 \times 60=$ Rs. 5100

## Company Q

Let cost price of each bottle $=$ Rs. 100 y


Let marked price of each bottle $=$ Rs. 140 y
Let selling price of each bottle $=R s .\left(140 y \times \frac{80}{100}\right)=R s .112 y$
ATQ.
$80 \times(112 y-100 y)=960$
$80 \times 12 y=960$
$y=1$
Total cost price of bottles $=100 \times 80=$ Rs. 8000
Total marked price of bottles $=140 \times 80=$ Rs. 11200
Total selling price of bottles $=112 \times 80=$ Rs. 8960
Req. difference $=$ Rs. $(11200-5100)=$ Rs. 6100

## S168. Ans.(e)

## Sol.

## Company $\mathbf{P}$

Total bottles sold $=60$
Let marked price and selling price of each bottle is 20 x and 17 x respectively.
ATQ.
$17 x \times 60=5100$
$x=5$
So, marked price and selling price of each bottle is Rs. 100 and Rs .85 respectively.
Cost price of each bottle $=\frac{100}{125} \times 100=$ Rs. 80
Total cost price of bottles $=80 \times 60=$ Rs. 4800
Total marked price of bottles $=100 \times 60=$ Rs. 6000
Total selling price of bottles $=85 \times 60=$ Rs. 5100
Company Q
Let cost price of each bottle $=$ Rs. 100 y
Let marked price of each bottle $=$ Rs. 140 y
Let selling price of each bottle $=R s .\left(140 y \times \frac{80}{100}\right)=R s .112 y$
ATQ.
$80 \times(112 y-100 y)=960$
$80 \times 12 y=960$
$y=1$
Total cost price of bottles $=100 \times 80=$ Rs. 8000
Total marked price of bottles $=140 \times 80=$ Rs. 11200
Total selling price of bottles $=112 \times 80=$ Rs. 8960
Req. $\%=\frac{140}{80} \times 100=175 \%$

## S169. Ans.(a)

## Sol.



## Company $\mathbf{P}$

Total bottles sold $=60$
Let marked price and selling price of each bottle is 20 x and 17 x respectively.
ATQ.
$17 x \times 60=5100$
$x=5$
So, marked price and selling price of each bottle is Rs. 100 and Rs .85 respectively.
Cost price of each bottle $=\frac{100}{125} \times 100=R s .80$
Total cost price of bottles $=80 \times 60=$ Rs. 4800
Total marked price of bottles $=100 \times 60=R s .6000$
Total selling price of bottles $=85 \times 60=R s .5100$

## Company Q

Let cost price of each bottle = Rs. 100 y
Let marked price of each bottle $=$ Rs. 140 y
Let selling price of each bottle $=$ Rs. $\left(140 y \times \frac{80}{100}\right)=R s .112 y$
ATQ.
$80 \times(112 y-100 y)=960$
$80 \times 12 y=960$
$y=1$
Total cost price of bottles $=100 \times 80=R s .8000$
Total marked price of bottles $=140 \times 80=$ Rs. 11200
Total selling price of bottles $=112 \times 80=$ Rs. 8960
Req. average $=\frac{85+112}{2}=$ Rs. 98.5

## S170. Ans.(b)

## Sol.

## Company $\mathbf{P}$

Total bottles sold $=60$
Let marked price and selling price of each bottle is 20 x and 17 x respectively.
ATQ.
$17 x \times 60=5100$
$x=5$
So, marked price and selling price of each bottle is Rs. 100 and Rs .85 respectively.
Cost price of each bottle $=\frac{100}{125} \times 100=$ Rs. 80
Total cost price of bottles $=80 \times 60=R s .4800$
Total marked price of bottles $=100 \times 60=$ Rs. 6000
Total selling price of bottles $=85 \times 60=$ Rs. 5100

## Company Q

Let cost price of each bottle $=$ Rs. 100 y
Let marked price of each bottle $=$ Rs. 140 y
Let selling price of each bottle $=R s .\left(140 y \times \frac{80}{100}\right)=R s .112 y$
ATQ.
$80 \times(112 y-100 y)=960$
$80 \times 12 y=960$
$y=1$
Total cost price of bottles $=100 \times 80=$ Rs. 8000
Total marked price of bottles $=140 \times 80=$ Rs. 11200
Total selling price of bottles $=112 \times 80=$ Rs. 8960
Req. sum $=$ Rs. $(6000+11200)=$ Rs. 17200

## S171. Ans.(c)

## Sol.

Let radius \& height of the conical toy be ' r ' cm \& ' $h$ ' cm respectively
Original volume $=\frac{1}{3} \pi r^{2} h$
New volume $=0.576 \pi r^{2} \mathrm{~h}$
ATQ
$0.576 \pi r^{2} \mathrm{~h}=691.2$
$\pi r^{2} \mathrm{~h}=1200$
Volume of the cylinder $=4 \pi r^{2} \mathrm{~h}=4800 \mathrm{~cm}^{3}$

## S172. Ans.(b)

## Sol.

Let cost price be Rs.100x
Marked price $=$ Rs. 180 x
Selling price $=$ Rs. $\left(180 x \times \frac{80}{100} \times \frac{90}{100}\right)=$ Rs. $121.5 x$
ATQ.
$121.5 x-100 x=860$
$21.5 x=860$
$x=40$
Marked price $=180 \times 40=$ Rs. 7200

## S173. Ans.(e)

Sol.
Let speed of train and length of train be ' $s$ ' $m / s$ and ' $x$ ' $m$ respectively.
ATQ.
$\frac{x}{s+10}=15$
$x=15(s+10)$
And
$\frac{x}{s-10}=18$
$x=18(s-10)$
From (i) and (ii)
$\mathrm{s}=110$
length of train $=x=15(110+10)=1800$ metrs
length of train in $\mathrm{km}=1.8 \mathrm{~km}$

## S174. Ans.(a)

## Sol.

Let monthly income of $A$ and $B$ is $6 x$ and $5 x$ respectively. ATQ.
$\frac{6 x-12000}{5 x-14000}=\frac{2}{1}$
$6 x-12000=10 x-28000$
$4 x=16000$
$x=4000$
Monthly income of $B=$ Rs. 20000


## S175. Ans.(e)

Sol.
Let males and females in the company be 80x and 70x respectively. ATQ.
$\frac{80 x \times \frac{140}{100}}{70 x \times \frac{160}{100}}=1: 1$

## S176. Ans.(b)

## Sol.

Let the quantity of milk and water be 13 x and 9 x respectively.
ATQ.
$\frac{13 x-44 \times \frac{13}{22}+2}{9 x-44 \times \frac{9}{22}+6}=\frac{4}{3}$
$\frac{13 x-26+2}{9 x-18+6}=\frac{4}{3}$
$39 x-72=36 x-48$
$3 x=24$
$x=8$
Initial quantity of water $=72$ liters

## S177. Ans.(a)

## Sol.

Let total work be 100 units.
So, efficiency of $\mathrm{Q}=4$ units/day
Efficiency of $\mathrm{P}+\mathrm{Q}=9$ units/day
Efficiency of $\mathrm{P}=9-4=5$ units/day
Number of days taken by P to complete the work alone $=\frac{100}{5}=20$ days
So, $X+15=20$
$X=5$
Required percentage $=\frac{10 \times 5}{100} \times 100=50 \%$

## S178. Ans.(e)

## Sol.

ATQ.
$\frac{3400 \times R \times x}{100}=680$
$R x=20$
And
$\frac{5000 \times R \times 4}{100}=2000$
$R=10$
$R x=20$
$10 x=20$
$x=2$
Req. value $=2 \mathrm{x}=4$

## S179. Ans.(d)

## Sol.

Let speed of boat in upstream be $5 \mathrm{x} \mathrm{km} / \mathrm{h}$
And speed of current $=5 x \times \frac{140}{100}=7 x \mathrm{~km} / \mathrm{h}$
Speed of boat in still water $=12 \mathrm{xkm} / \mathrm{h}$
ATQ.
$\frac{570}{12}=19 x$
$x=2.5$
Req. time $=\frac{225}{2.5 \times 12}=7.5$ hours

## S180. Ans.(d)

## Sol.

Let present age of $P, Q, R$ and $S$ is $p, q, r$ and $s$ respectively.
$p-8=q+8$
$p-q=16 \ldots$ (i)
$p-15=r$
$s=20+r \ldots(i i)$
$s=20+p-15$ (put r value from e.q. (ii))
$s-p=5 \ldots$ (iii)
From (i) and (iii)
$s-q=21$
So, req. difference $=21$ years

## S181. Ans.(c)

Sol.
I. $\frac{3}{x}+\frac{7}{x^{2}}=4$
I. $\frac{3 x+7}{x^{2}}=4$
$4 x^{2}-3 x-7=0$
$4 x^{2}+4 x-7 x-7=0$
$x=-1, \frac{7}{4}$
II. $y^{3}-19=493$
$y^{3}=512$
$y=8$
So, $\mathrm{x}<\mathrm{y}$

## S182. Ans.(e)

Sol.
I. $x^{\frac{3}{2}}-\frac{9}{x^{\frac{1}{2}}}=0$
$x^{\frac{3}{2}} \times x^{\frac{1}{2}}-9=0$
$x^{2}=9$
$x=-3,3$
II. $\left.\frac{18}{y^{2}}-\frac{11}{y}=-1 \right\rvert\,$
$\frac{18-11 y}{y^{2}}=-1$
$18-11 y=-y^{2}$
$y^{2}-11 y+18=0$
$y^{2}-9 y-2 y+18=0$
$y=9,2$
So, no relation can be established between x and y .

S183. Ans.(c)

## Sol.

$$
\begin{aligned}
& \text { I. } 2 x^{2}+7 x-49=0 \\
& 2 x^{2}+14 x-7 x-49=0 \\
& \quad x=-7,3.5
\end{aligned}
$$

II. $2 y^{2}-25 y+68=0$
$2 y^{2}-8 y-17 y+68=0$
$y=4,8.5$
So, $\mathrm{x}<\mathrm{y}$

## S184. Ans.(e)

## Sol.

I. $(5 x-9)^{2}=16$
$5 x-9= \pm 4$
$x=2.6,1$
II. $(2 y-7)^{2}=64$
$2 y-7= \pm 8$
$y=-0.5,7.5$
So, no relation can be established between x and y .

## S185. Ans.(a)

## Sol.

I. $\mathrm{x}^{2}-10 \mathrm{x}+21=0$
$\mathrm{x}^{2}-7 \mathrm{x}-3 x+21=0$
$\mathrm{x}=7,3$
II. $y^{2}+12 y+32=0$
$\mathrm{y}^{2}+8 \mathrm{y}+4 \mathrm{y}+32=0$
$y=-8,-4$
So, $x>y$

## S186. Ans.(a)

## Sol.

For seller P
Total quantity of fruits sold $=450 \mathrm{~kg}$
Let total quantity of kiwis sold be 4 xkg
Total quantity of mangoes sold $=4 x \times \frac{125}{100}=5 x \mathrm{~kg}$
ATQ.
$4 x+5 x=450$
$x=50$
So, total quantity of kiwis sold $=200 \mathrm{~kg}$
Total quantity of mangoes sold $=250 \mathrm{~kg}$
Similarly,

| Seller | Total <br> quantity <br> (in kg) of <br> fruits sold | Total <br> quantity <br> (in kg) of <br> mangoes <br> sold | Total <br> quantity <br> (in kg) of <br> kiwis sold |
| :--- | :--- | :--- | :--- |
| P | 450 | 250 | 200 |
| Q | 600 | 350 | 250 |
| R | 550 | 300 | 250 |
| S | 300 | 180 | 120 |
| T | 650 | 400 | 250 |

Req. $\%=\frac{250}{400} \times 100=62.5 \%$

## S187. Ans.(b)

## Sol.

For seller $P$
Total quantity of fruits sold $=450 \mathrm{~kg}$
Let total quantity of kiwis sold be 4 x kg
Total quantity of mangoes sold $=4 x \times \frac{125}{100}=5 x \mathrm{~kg}$
ATQ.
$4 x+5 x=450$
$x=50$
So, total quantity of kiwis sold $=200 \mathrm{~kg}$
Total quantity of mangoes sold $=250 \mathrm{~kg}$
Similarly,

| Seller | Total <br> quantity <br> (in kg) of <br> fruits sold | Total <br> quantity <br> (in kg) of <br> mangoes <br> sold | Total <br> quantity <br> (in kg) of <br> kiwis sold |
| :--- | :--- | :--- | :--- |
| P | 450 | 250 | 200 |
| Q | 600 | 350 | 250 |
| R | 550 | 300 | 250 |
| S | 300 | 180 | 120 |
| T | 650 | 400 | 250 |

Total quantity of apples sold by $S=200 \times \frac{150}{100}=300$
Req. ratio $=350: 300=7: 6$

## S188. Ans.(d)

## Sol.

For seller $P$
Total quantity of fruits sold $=450 \mathrm{~kg}$
Let total quantity of kiwis sold be 4 x kg
Total quantity of mangoes sold $=4 x \times \frac{125}{100}=5 x \mathrm{~kg}$
ATQ.
$4 x+5 x=450$
$x=50$
So, total quantity of kiwis sold $=200 \mathrm{~kg}$
Total quantity of mangoes sold $=250 \mathrm{~kg}$
Similarly,

| Seller | Total <br> quantity <br> (in kg) of <br> fruits sold | Total <br> quantity <br> (in kg) of <br> mangoes <br> sold | Total <br> quantity <br> (in kg) of <br> kiwis sold |
| :--- | :--- | :--- | :--- |
| P | 450 | 250 | 200 |
| Q | 600 | 350 | 250 |
| R | 550 | 300 | 250 |
| S | 300 | 180 | 120 |
| T | 650 | 400 | 250 |

Total amount received by seller $\mathrm{R}=300 \times 55+250 \times 90=$ Rs 39000

## S189. Ans.(e)

## Sol.

## For seller P

Total quantity of fruits sold $=450 \mathrm{~kg}$
Let total quantity of kiwis sold be 4 x kg
Total quantity of mangoes sold $=4 x \times \frac{125}{100}=5 x \mathrm{~kg}$
ATQ.
$4 x+5 x=450$
$x=50$
So, total quantity of kiwis sold $=200 \mathrm{~kg}$
Total quantity of mangoes sold $=250 \mathrm{~kg}$
Similarly,

| Seller | Total <br> quantity <br> (in kg) of <br> fruits sold | Total <br> quantity <br> (in kg) of <br> mangoes <br> sold | Total <br> quantity <br> (in kg) of <br> kiwis sold |
| :--- | :--- | :--- | :--- |
| P | 450 | 250 | 200 |
| Q | 600 | 350 | 250 |
| R | 550 | 300 | 250 |
| S | 300 | 180 | 120 |
| T | 650 | 400 | 250 |

Total quantity of mangoes sold by $U=250 \times \frac{7}{5}=350$
Total quantity of kiwis sold by $\mathrm{U}=180 \times \frac{80}{100}=144$
Req. sum $=350+144=494 \mathrm{~kg}$

## S190. Ans.(a)

## Sol.

For seller $P$
Total quantity of fruits sold $=450 \mathrm{~kg}$
Let total quantity of kiwis sold be 4 x kg
Total quantity of mangoes sold $=4 x \times \frac{125}{100}=5 x \mathrm{~kg}$


ATQ.
$4 x+5 x=450$
$x=50$
So, total quantity of kiwis sold $=200 \mathrm{~kg}$
Total quantity of mangoes sold $=250 \mathrm{~kg}$
Similarly,

| Seller | Total <br> quantity <br> (in kg) of <br> fruits sold | Total <br> quantity <br> (in kg) of <br> mangoes <br> sold | Total <br> quantity <br> (in kg) of <br> kiwis sold |
| :--- | :--- | :--- | :--- |
| P | 450 | 250 | 200 |
| Q | 600 | 350 | 250 |
| R | 550 | 300 | 250 |
| S | 300 | 180 | 120 |
| T | 650 | 400 | 250 |

Req. quantity $=200 \times \frac{27}{40}+250 \times \frac{7}{10}=135+175=310 \mathrm{~kg}$

## S191. Ans.(e)

## Sol.

For seller $P$
Total quantity of fruits sold $=450 \mathrm{~kg}$
Let total quantity of kiwis sold be 4 x kg
Total quantity of mangoes sold $=4 x \times \frac{125}{100}=5 x \mathrm{~kg}$
ATQ.
$4 x+5 x=450$
$x=50$
So, total quantity of kiwis sold $=200 \mathrm{~kg}$
Total quantity of mangoes sold $=250 \mathrm{~kg}$
Similarly,

| Seller | Total <br> quantity <br> (in kg) of <br> fruits sold | Total <br> quantity <br> (in kg) of <br> mangoes <br> sold | Total <br> quantity <br> (in kg) of <br> kiwis sold |
| :--- | :--- | :--- | :--- |
| P | 450 | 250 | 200 |
| Q | 600 | 350 | 250 |
| R | 550 | 300 | 250 |
| S | 300 | 180 | 120 |
| T | 650 | 400 | 250 |

Average quantity of kiwis sold by $T$ and $Q=\frac{250+250}{2}=250$
Total quantity of fruits (kiwis+ mangoes) sold by $\mathrm{S}=300$
Req. difference $=300-250=50$

## S192. Ans.(d)

## Sol.

## From I:

Let efficiency of a man be $m$ units/day and $y$ children's are required to complete the work in 20 days.
ATQ,
$(a+3) \times m \times(a+8)=(14+a) \times m \times 50$
$a^{2}+11 a+24=700+50 a$
$a^{2}-39 a-676=0$
$a=52$
Now,
$55 \times m \times 60=y \times .25 m \times 20$
$y=660$
From II:
Let efficiency of a women be w units/day and $x$ days are required to complete the work by a man
$1.6 w \times 1 \times x=1 \times w \times 240$
$x=150$
Now
25. $m \times 20 \times y=1 \times m \times 150$
$y=30$ dyas
So, either statement (I) or statement (II) by itself is sufficient to answer the question.

S193. Ans.(d)

## Sol.

## From I:

Let cost price of book be 100x Rs.
So, marked price of book $=$ Rs. 180 x
And, original selling price of book $=$ Rs. 144 x
ATQ-
$180 x-144 x=1800$
$x=50$
So, required selling price of book $=$ Rs. 7200

## From II:

Let selling price \& marked price of be Rs.100x \& Rs.130x respectively.
Let cost price of the book be Rs. 100 y .
ATQ,
$30 x=43.2 y$
$\frac{x}{y}=\frac{36}{25}$
Now, let x \& y be 36 a \& 25 a respectively.
Now, $(100 \times 36 a-100 \times 25 a)-(130 \times 36 a-100 \times 36 a)=40$
$1100 a-1080 a=40$
$a=2$
So, selling price of the book $=100 \times 36 \times 2$
= Rs. 7200
Hence, either statement (I) or statement (II) by itself is sufficient to answer the question.

## S194. Ans.(c)

Sol.
Let number of blue \& black balls be x \& y respectively.

## From I:

$\frac{x \times 2}{x+y+2 C_{2}}=\frac{2}{9}$
$18 x=(x+y+2)(x+y+1)$


From II:
$\frac{{ }^{x} C_{2}}{x+y+2 C_{2}}=\frac{2}{9}$
$9 x(x-1)=2(x+y+2)(x+y+1)$
Put value of (i) in (ii):
$9 x(x-1)=2 \times 18 x$
$x=5$
Put value of $x$ in (i):
$90=(y+7)(y+6)$
$y^{2}+13 y-48=0$
$y=3$
Hence, total number of balls in the bag $=10$
So, both the statements taken together are necessary to answer the question, but neither of the statements alone is sufficient to answer the question.

## S195. Ans.(c)

## Sol.

From (I). Number of bikes sold in $2020=\frac{5}{8} \times 80000=50000$
From (II). Number of bikes sold in $2021=\frac{125}{100} \times 50000=62500$
So, both the statements taken together are necessary to answer.

## S196. Ans.(a)

## Sol.

Distance covered by boat A in upstream in 30 minutes $=25 \times \frac{16}{100}=4 \mathrm{~km}$
Distance covered by boat $C$ in upstream 15 minutes $=25 \times \frac{4}{100}=1 \mathrm{~km}$
Upstream speed for $\mathrm{A}=4 \times \frac{60}{30}=8 \mathrm{~km} / \mathrm{hr}$.
Upstream speed for $C=1 \times \frac{60}{15}=4 \mathrm{~km} / \mathrm{hr}$.
Let speed of stream for $A$ be $x$ and speed of boat $A$ in still water be $3 x$
Now, let speed of stream for C be a and speed of boat C in still water be 2a ATQ -
$3 x-x=8$
$\mathrm{x}=4$
So, speed for boat A in still water $=12 \mathrm{~km} / \mathrm{hr}$
Now, 2a-a = 4

$$
a=4
$$

So, speed for boat $C$ in still water $=8 \mathrm{~km} / \mathrm{hr}$
Required ratio $=\frac{96}{(12+4)}: \frac{96}{(8+4)}=3: 4$

S197. Ans.(a)

## Sol.



Distance covered by boat D in upstream in 30 minutes $=25 \times \frac{12}{100}=3 \mathrm{~km}$ Let speed of stream for $D$ be $2 x$ and speed of boat $D$ in still water be $5 x$ Upstream speed for boat $D=3 \times \frac{60}{30}=6 \mathrm{~km} / \mathrm{hr}$.
ATQ -
$5 \mathrm{x}-2 \mathrm{x}=6$
$\mathrm{x}=2 \mathrm{~km} / \mathrm{hr}$
Downstream speed for boat $\mathrm{D}=5 \times 2+4=14 \mathrm{~km} / \mathrm{hr}$
Now,
$\frac{D}{14}+\frac{D}{6}=20$
$\frac{3 D+7 D}{42}=20$
$\mathrm{D}=84 \mathrm{~km}$
Total distance covered by boat $\mathrm{D}=84+84=168 \mathrm{~km}$

## S198. Ans.(e)

## Sol.

Distance covered by boat E in upstream in 24 minutes $=25 \times \frac{32}{100}=8 \mathrm{~km}$
Distance covered by boat B in upstream in 45 minutes $=25 \times \frac{36}{100}=9 \mathrm{~km}$
Upstream speed for boat $\mathrm{E}=8 \times \frac{60}{24}=20 \mathrm{~km} / \mathrm{hr}$
Upstream speed for boat $\mathrm{B}=9 \times \frac{60}{45}=12 \mathrm{~km} / \mathrm{hr}$
Let speed of stream for $E$ be $x$ and speed of boat $E$ in still water be $6 x$
$6 \mathrm{x}-\mathrm{x}=20$
$5 \mathrm{x}=20$
$\mathrm{x}=4$
Downstream speed for boat $\mathrm{E}=6 \times 4+4=28 \mathrm{~km} / \mathrm{hr}$
Same, let speed of stream for B be $b$ and speed of boat B in still water be $4 b$
$4 b-b=12$
$3 b=12$
b $=4$
Downstream speed for boat $B=4 \times 4+4=20 \mathrm{~km} / \mathrm{hr}$
Required percentage $=\frac{28-20}{20} \times 100=40 \%$

## S199. Ans.(d)

Sol.
Distance covered by boat $B$ in upstream in 45 minutes $=25 \times \frac{36}{100}=9 \mathrm{~km}$
Upstream speed for boat $B=9 \times \frac{60}{45}=12 \mathrm{~km} / \mathrm{hr}$
Let speed of stream for $B$ be $x$ and speed of boat $B$ in still water be $4 x$ ATQ,
$4 \mathrm{x}-\mathrm{x}=12$
$3 \mathrm{x}=12$
$\mathrm{x}=4$


Downstream speed for boat $\mathrm{B}=4 \times 4+4=20 \mathrm{~km} / \mathrm{hr}$
So, downstream speed of boat $\mathrm{F}=20 \times \frac{175}{100}=35 \mathrm{~km} / \mathrm{hr}$
Let speed of stream for $F$ be $2 f$ and speed of boat $F$ in still water be $5 f$
ATQ $-5 \mathrm{f}+2 \mathrm{f}=35$
$\mathrm{f}=5$
Upstream speed for boat $\mathrm{F}=5 \times 5-2 \times 5=15 \mathrm{~km} / \mathrm{hr}$
Required time $=\frac{120}{15}=8$ hours

## S200. Ans.(c)

## Sol.

Distance covered by boat D in upstream in 30 minutes $=25 \times \frac{12}{100}=3 \mathrm{~km}$
Let speed of stream for $D$ be $2 x$ and speed of boat $D$ in still water be $5 x$
Upstream speed for boat $D=3 \times \frac{60}{30}=6 \mathrm{~km} / \mathrm{hr}$.

ATQ -
$5 \mathrm{x}-2 \mathrm{x}=6$
$\mathrm{x}=2$
Downstream speed for boat D=5 $\times 2+4=14 \mathrm{~km} / \mathrm{hr}$
Distance covered by boat $A$ in upstream in 30 minutes $=25 \times \frac{16}{100}=4 \mathrm{~km}$
Upstream speed for $A=4 \times \frac{60}{30}=8 \mathrm{~km} / \mathrm{hr}$.
Let speed of stream for $A$ be $a$ and speed of boat $A$ in still water be 3a
ATQ -
$3 a-a=8$
$a=4$
Downstream speed of boat $\mathrm{A}=3 \times 4+4=16 \mathrm{~km} / \mathrm{hr}$
Required difference $=16-14=2 \mathrm{~km} / \mathrm{hr}$


