ECGC PO Previous Year Paper 2022

Directions (1-4): In each question 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 conclusion **logically definitely follows** from the given statements, disregarding commonly known facts. Give answer –

Q1. Statements: Only a few Asian is Apex. Some Royal is not Indigo. All Apex is Royal. Only a few Berger is Indigo
Conclusions:
(a) Some Berger can never be Royal
(b) Some Royal is not Asian
(c) All Royal being Indigo is not a possibility
(d) Some Berger is not Apex
(e) All Asian can be Apex

Q2. Statements: No Envelop is Print. Only a few Envelop is Paper. Some print is Mail. Only Paper is Book. All Printers are Mail.
Conclusions:
(a) Some Print being Book is a possibility
(b) No Printer is Envelop
(c) All Envelop can be Paper
(d) All Paper being Envelop is a possibility
(e) No Mail is Book

Q3. Statements: All wheat are Grain. Only a few Rice is pulses. Some pulses are not Corn. Only a Few Grain is Rice. No wheat is Corn.
Conclusions:
(a) Some Rice is not Corn
(b) Some Grain is not Corn
(c) All Wheat being Pulses is not a possibility
(d) Some Rice is not Grain
(e) All follow

Q4. Statements: Only Blue is Green.
Some Red is not White.
Some Blue is White.
Only a few Yellow is Red.
Conclusions:
(a) Some Blue is definitely not White
(b) All Green can never be Red.
(c) All yellow can never be Green
(d) Some yellow is not red
(e) All follow

Directions (5-10): Study the following information carefully and answer the given questions.
Eight persons of a three-generation family sit around a square table such that four persons sit at the corners and the remaining four sit at the middle of the side. All of them face towards the centre.
M is son in law of T. Q's only daughter sits second to the right of D. One person sits between Q's spouse and the one who is Q's daughter. D is unmarried and brother-in-law of I. T's only son sits opposite to I. I sits to the immediate right of Q's daughter. P sits adjacent to D. P neither sits adjacent to Q's daughter nor sits at the middle of the side. K is child of M who has two children. K sits adjacent to I and is unmarried. T sits immediate right of B. I's daughter sits opposite to B. Gender of B and T is same.

Q5. How many married couples are there in the family?
(a) One
(b) Two
(c) Three
(d) None
(e) None of these

Q6. Who among the following sits third to the left of I's spouse?
(a) Q's daughter
(b) Q
(c) P's mother
(d) D
(e) None of these

Q7. How many persons sit between K's sibling and M's spouse?
(a) One
(b) Two
(c) Four
(d) None
(e) Three

Q8. Four of the following five are alike in a certain way and thus form a group. Which of the following one does not belong to the group?
(a) Q
(b) B
(c) I
(d) P
(e) M

Q9. How D is related to P?
(a) Uncle
(b) Brother
(c) Nephew
(d) Brother-in-law
(e) None of these

Q10. Who among the following is granddaughter of T?
(a) The one who sits second to the right of M
(b) The one who sits immediate left of I
(c) B
(d) None of these
(e) Q

Directions (11-11): In each question below is given a statement followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the two conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement. Given answer:

Q11. Statement: Both India and Australia reviewed the bilateral defence cooperation and explored new initiatives to further strengthen bilateral defence engagements. Both sides reaffirmed their commitment to fully implement the Comprehensive Strategic Partnership based on mutual trust and understanding, common interests and shared values.
Conclusions:
I. Australia and India established a military partnership resembling the NATO alliance.
II. India and Australia are working together to improve their Comprehensive Strategic Partnership and their bilateral defence cooperation.
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either I or II follows.
(d) If neither I nor II follows
(e) If both I and II follow.

Directions (12-16): Study the following information carefully and answer the given questions.
Eight persons live on an eight-floor building such that the ground floor is numbered as 1, the floor just above it is numbered as 2 and so on till the topmost floor is numbered as 8. Each person has different age but neither more than 40 years nor less than 10 years.
A lives on an odd numbered floor and has a perfect square age. A's age is an even number and less than 36 years. B lives two floors below A. The age difference between A and B is 11 years. G lives on an even number floor below B. H lives on the bottommost floor. The number of persons lives below G is one more than the number of persons lives above the one whose age is 29 years. E lives two floors above the one whose age is 21. H is 6 years younger than B. The age difference between F and B is 16 years. F lives above D. C's age is an even number. E's age is multiple of 11 and more than D's age. One of the persons age is 22 years which is 3 years less than G's age.

Q12. What is the sum of the ages of F and C?
(a) 30 years
(b) 33 years
(c) 43 years
(d) 40 years
(e) 29 years

Q13. How many persons live between the one whose age is 16 years and H?
(a) One
(b) Two
(c) Four
(d) Three
(e) More than four

Q14. Four of the following five are alike in a certain way and thus form a group. Which of the following one does not belong to the group?
(a) A
(b) B
(c) C
(d) E
(e) H

Q15. Which among the following statement is true?
(a) F lives on the 3rd floor
(b) Two persons live below B
(c) B's age is a prime number
(d) Sum of A's age and C's age is an even number
(e) E lives above F

Q16. What is the age of G?
(a) 25 years
(b) 16 years
(c) 11 years
(d) 33 years
(e) None of these

Directions (17-20): In the following questions, the symbols @, %, $, # and & used with the following meaning as illustrated below:
'A & B' means 'A is not greater than B'
'A $ B' means 'A is not smaller than B'
'A @ B' means 'A is neither smaller than nor equal to B'
'A # B' means 'A is neither greater than nor equal to B'
'A % B' means "A is neither greater than nor smaller than B'
Now, in each of the following questions assuming the given statements to be true, find which of the three conclusions I, II and III is/are definitely true and give your answer accordingly.

Q17. Statements: B @ Q $ T % O & L # M; S $ G % O
Conclusions: I. T & S II. G $ Q III. Q @ L
(a) Either I or II is true
(b) None is true
(c) Only II is true
(d) Only I is true
(e) Both I and III are true

Q18. Statements: Y $ O % U $ R # T; U @ I & M # E
Conclusions: I. Y @ I II. Y $ R III. E @ U
(a) Either I or III is true
(b) Both I and II are true
(c) Only II is true
(d) Only III is true
(e) Both I and III are true

Q19. Statements: M $ A @ N % G & O @ S & E @ Z
Conclusions: I. N @ S II. M @ G III. G & S
(a) Only I is true
(b) Only II and either I or III is true
(c) Only II is true
(d) Only I and either II or III is true
(e) Both I and III are true

Q20. Statements: E % L & I # Z & A % B $ E @ T $ H
Conclusions: I. B $ E II. I # B III. H # Z
(a) Only I is true
(b) Only II and either I or III is true
(c) Only II is true
(d) Only I and either II or III is true
(e) Both I and III are true

Directions (21-25): Study the following information carefully and answer the questions given below:
A certain number of persons sit in a row face north. Two persons sit between M and Q. The number of persons sit between M and Q is one more than the number of persons sit between D and M. E sits 3rd to the right of D. The number of persons sit to the right of Q is equal to the number of persons sit to the left of O. Not more than two persons sit between M and E. The number of persons sit between D and E is same as the number of persons sit to the right of Q. Three persons sit between D and N who sits 2nd to the right of A. There are as many persons sit between A and Y is same as the number of persons sit between D and A. U sits 4th from the extreme ends and immediate neighbour of O. One person sits between Y and O.

Q21. How many persons sit in the row?
(a) Fourteen
(b) Nineteen
(c) Twenty
(d) Eighteen
(e) None of these

Q22. How many persons sit between Y and the one who sits 5th to the right of U?
(a) Seven
(b) More than nine
(c) Eight
(d) Three
(e) Six

Q23. The number of persons sit between M and E is same as the number of persons sit between ___ and ___.
(a) E, Q
(b) D, N
(c) U, O
(d) Y, U
(e) None of these

Q24. Four of the following five are alike in a certain way and hence form a group. Which of the following does not belong to that group?
(a) N
(b) D
(c) M
(d) Q
(e) Y

Q25. What is the position of E with respect to the one who sits 4th to the left of D?
(a) 6th to the left
(b) 7th to the right
(c) 5th to the right
(d) 4th to the left
(e) None of these

Directions (26-28): Study the following information carefully and answer the given questions.
Eight persons attend the conference in eight consecutive month starts from March. I attends the conference in the month having an even number of days. Two persons attends the conference between I and Q. N attends the conference two months before Q. The number of persons attends the conference between N and Q is same as the number of persons attends the conference between F and I. I attends the conference after F. J attends the conference before M but after P. P attends the conference before N but not the first one to attend the conference. K is one of the persons who attends the conference.

Q26. Who among the following attends the conference in July?
(a) P
(b) N
(c) J
(d) M
(e) F

Q27. How many attends the conference between K and Q?
(a) Three
(b) Four
(c) Five
(d) Six
(e) None of these

Q28. Four of the following five are alike in a certain way and thus form a group. Which of the following one does not belong to the group?
(a) K
(b) P
(c) N
(d) M
(e) Q

Directions (29-30): With an increased variability of monsoons and rapidly depleting groundwater tables, large parts of India are reeling under water stress and drought like situation. Here, one intervention that has been tried out in various States, and perhaps needs to be taken up on a bigger scale, is the construction of farm ponds, it can be cost-effective structures that transform rural livelihoods. They can help enhance water control, contribute to agriculture intensification and boost farm incomes.

Q29. Which of the following can diminish the importance farm ponds?
(a) Farm Ponds is cost effective and it transform rural livelihoods.
(b) It will help to enhance water control, agricultural reforms and can boost farmers' incomes.
(c) It can used as intermediate storage which may leads to evaporation loss.
(d) Both (a) & (b)
(e) Both (b) & (c)

Q30. Which of the following statement(s) is/are false in context of the given statement?
(a) The problem of lower water table has captivated the entire country.
(b) Farm ponds can help in the process of water control.
(c) Construction of farm ponds hamper the agricultural modification & rural subsistence.
(d) Farm ponds can be a viable investment option
(e) None of these.

Directions (31-35): Study the following information carefully and answer the questions given below:

Eight persons have different designations i.e., General Manager (GM), Deputy General Manager (DGM), Manager, Assistant General Manager (AGM), Assistant Manager (AM), Section Officer (SO), Sr. Accountant and Clerk in a company. The order of seniority is the same as given above i.e., GM is the senior-most designation and Clerk is the junior-most designation. Each of them likes different vegetable- Carrot, Broccoli, Asparagus, Cauliflower, Corn, Cucumber, Eggplant and Green pepper but not necessarily in the same order.

R is senior to the one who likes green pepper and junior to Assistant Manager (AM). D is two posts senior to the one who likes Cauliflower. The number of persons junior to R is one less than the number of persons senior to the one who likes cauliflower. Q is senior to D. Even number of persons designated between Q and the one who likes green pepper. F is not a Sr. accountant. U likes eggplant. H is just senior to the one who likes corn. One post gap between Y and F who likes asparagus. The one who likes carrot is just senior to the one who likes Broccoli. M is one of the persons.

Q31. ___ is four post junior to the one who likes asparagus?

(a) Y
(b) M
(c) R
(d) U
(e) None of these

Q32. How many persons are junior to M?

(a) Two
(b) Six
(c) More than six
(d) None
(e) One

Q33. How many designations gap is there between U and F?

(a) Three
(b) Four
(c) One
(d) Six
(e) Five

Q34. Four of the following five are alike in a certain way and hence form a group. Which of the following does not belong to that group?

(a) Assistant General Manager - H
(b) General Manager - Q
(c) Manager - Y
(d) Section Officer - R
(e) Clerk - M

Q35. The number of persons designated between H and the one who likes carrot is same as the number of persons designated between ___ and the one who likes ___.
(a) U, Cauliflower
(b) M, Asparagus
(c) D, Broccoli
(d) R, Corn
(e) None of these

Directions (36-39): A number arrangement machine when given an input line of numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input: 365468	**425397**	**276519**	**732649**	**954224**	
Step I: 6546	2539	7651	3264	5422	
Step II: 54	37	47	30	24	
Step III: 44	47	57	20	14	
Step IV: 44	74	75	2	41	
Step V: H	B	C	B	E	

Step V is the final step of given input.
Answer the following questions based on the following input: -
Input: 841782 487156 389573 724739 329454

Q36. Find the difference between the highest number and smallest number in step I?
(a) 6242
(b) 5722
(c) 7494
(d) 6482
(e) 6484

Q37. How many vowels found in the final step?
(a) Four
(b) More than four
(c) Three
(d) None
(e) None of these

Q38. Which of the following steps the element "71 117 39" found in the same manner?
(a) Step III
(b) Step V
(c) Step IV
(d) Step II
(e) There is no such step

Q39. What is the position of 2nd smallest number with respect to the highest number in the penultimate step?
(a) 3rd to the left
(b) 2nd to the right
(c) Immediate right
(d) 3rd to the right
(e) None of these

Directions (40-44): Study the following information carefully and answer the questions given below:
Ten persons live in four different cities viz. Mysore, Patiala, Jaipur and Chandigarh. At least two but not more than three persons live in the same city. Each of them likes different numbers from 10 to 100 in a multiple of 10.
K lives only with L but not in Patiala and Jaipur. Y lives in Jaipur. Q neither live with Y nor live in Mysore. W and X live in the same city but not live with Q and Y. F live with G and one more person in the same city. H lives in Jaipur. A and W are live in the same city. H likes the number which is a perfect square of even number. F likes the number which is four times of G likes and half of the number which is Q likes. The number which is Q likes is equal to the sum of the numbers like by K and L. The number which is W likes is equal to the sum of the numbers like by Q and G. L likes the number which is thrice of the number likes by K and twice of the number likes by A. Y likes the number which is less than the number likes by X. The one who likes 90 doesn't live in Chandigarh and Patiala.

Q40. What is the average of the numbers which are like by Y, K, A and L?
(a) 50
(b) 40
(c) 30
(d) 45
(e) 60

Q41. Which among the following combination is correct?
(a) W-70
(b) G-20
(c) H-80
(d) L-20
(e) Q-80

Q42. Who among the following live in Jaipur?
(a) Y, H
(b) A, W, X
(c) A, F, W
(d) G, F, Y
(e) None of these

Q43. Which of the following number does X likes?
(a) 50
(b) 80
(c) 70
(d) 60
(e) 10

Q44. Who among the following lives with G?
(a) Q
(b) Y
(c) A
(d) X
(e) None of these

Directions (45-47): Study the following information carefully and answer the questions given below.
A person starts his journey from point P in south direction after walking 8m he reaches at point B. From point B he takes a left turn and walks 7m to reach point F. Now he takes a left turn again and walks 4m to reach point E. From point E he takes a right turn and walks 5m to reach at point Q. Now he turns right from point Q and walks 10m to reach point H. From there he takes two consecutive left turns and walks 3m and 6m respectively and reaches at point G and point D respectively.

Q45. What is the shortest distance between point D and point H?
(a) $3\sqrt{3}$m
(b) 45m
(c) $3\sqrt{5}$m
(d) 31m
(e) None of these

Q46. Four of the following five are alike in a certain way and hence form a group. Find the one which doesn't belong to the group?
(a) PE
(b) ED
(c) FG
(d) BH
(e) HD

Q47. In which direction is point D with respect to point B?
(a) South
(b) East
(c) North-east
(d) North-west
(e) South-west

Directions (48-49): Dismissing four petitions challenging the collection of fine in cars when the drivers were found without a mask, the Delhi high court said it is mandatory to wear a mask in a private car even when the driver is alone in the car, as a vehicle is considered a public place. The high court said a mask acts as *Suraksha Kavach*, which would prevent the spread of the deadly virus.

Q48. Which of the following diminish the verdict issued by Delhi High Court?
(a) There will be penalty if anyone will break the rules to wear mask.
(b) Delhi government has decided to distribute masks at public places.
(c) Mask is not compulsory for police personnel if they are driving alone.
(d) Delhi Transport department has also made compulsory to wear masks in DTC buses and DMRC.
(e) Both (b) and (d)

Q49. Which of the following can be hypothesized from the above statement?
(I) People will follow the rules to wear mask even they are alone in car.
(II) Awareness among people will be spread as court has termed "Suraksha Kavach" to mask.
(III) Less car will be seen on the roads of Delhi after verdict of High Court.
(a) Only III
(b) Only I and II
(c) Only II and III
(d) Only II
(e) All I, II & III

Q50. The collapse of a great wall of garbage in east Delhi's Ghazipur area, sweeping people and vehicles into a nearby canal, is a stark reminder that India's neglected waste management crisis can have deadly consequences. More than a year after the notification of the much-delayed Solid Waste Management Rules, cities and towns are in no position to comply with its stipulations, beginning with the segregation of different kinds of waste at source and their scientific processing. What may be the fallout of laxity towards waste management?
(I) Organic Waste should use to make affordable household biogas plants and production of methane for power generation.
(II) Waste materials can worsen air pollution level due to which people will face issue in breathing.
(III) Supreme court comes in action after PIL has been filed by group of peoples in Delhi.
(a) Only I and III
(b) Only II and III
(c) Only II
(d) Only III
(e) None of them

Directions (51-60): Read the following passage carefully and answer the questions given below them.

The newspaper industry has been in steady decline triggered by a loss in readership and ad revenue which have been migrating to other media, most notably digital. While the declines have been ongoing for a number of years, the pandemic and ensuing sluggish economy impacted a number of core newspaper advertisers such as retail, movies and promoting community events. These categories cut back on their marketing budgets, accelerating declines in ad revenue. Using a number of industry sources, Pew Research Center in their annual State of the News report, covered the latest newspaper trends. In 2020, the circulation of weekday newspapers was 22.3 million. In contrast, in 1990, the weekday newspaper circulation was 63.2 million. Since then, circulation has been steadily dropping, reaching an all-time low in 2020. With increasing subscription and newsstand prices, Pew estimates the revenue for circulation in 2020 totaled $11.1 billion, similar to the previous year of $11.0 billion.

With the economic slowdown and most retail outlets and community events **temporarily** shut down, newspaper ad revenue declined sharply in 2020. For the year, ad revenue totaled a record low $8.8 billion, down nearly 30% from $12.45 billion in 2019. In a first, Pew Research notes newspapers in 2020, had generated more revenue from circulation than from advertising. In the future, the larger and more financially successful newspapers will be more reliant on (digital) circulation for revenue rather than advertising. For smaller newspapers without a national brand, it will be more of a challenge. Based on publicly traded companies, in 2020, ad revenue for digital newspapers stood at 39%. Digital newspapers share of ad revenue has been steadily **climbing**, in 2011 it had accounted for just 17% of ad dollars.

As newspaper revenue declines so has employment. In 2020 employees in the newspaper industry numbered 30,820 workers, less than half the 74,410 in 2006. Sadly, the employment number has fallen every year since then. In addition, at 55%, larger newspapers were more likely to have layoffs than smaller newspapers. Another challenge confronting the industry has been newspapers closing. According to a report from Poynter, with the pandemic, 85 local newsrooms were permanently shut. With more newspapers closing down, news deserts have _____across the country.

Q51. Why is the newspaper industry lagging behind for the past few years?

(a) Because the revenue of the newspaper industry from the advertisements has been significantly decreased

(b) Because nowadays people are switching to other modes of news, mainly to digital newspaper

(c) A Sharp diminish in the number of newspaper readers has prompted a decrease in newspaper demand

(d) Advertisers are preferring digital platforms to the conventional newspapers for marketing

(e) All of these

Q52. What is/are accountable for downgoing advertisement revenue?

(a) Indirect impact of a depressed economy is one of the reasons for decreasing ad revenue

(b) Covid-19 has also worsened the already deteriorated advertisement revenue

(c) Save tree campaign has been putting off advertisers to use newspapers for promotion

(d) Increasing cost of advertisement is the reason for the decline in advertisement revenue

(e) Both (a) and (b)

Q53. Which of the following can be concluded from Pew Research Center's report?
(a) A huge difference is evident in the circulation of newspapers in English and Hindi languages
(b) In the second last year, the circulation of newspapers is drastically at its lowest point
(c) Report exhibits that the distribution of newspapers in 2020 is approximately one-third of the 1990's distribution.
(d) Only (b) and (c)
(e) All of these

Q54. What is/are the difference(s) between ad revenue in 2019 and 2020 in the newspaper industry?
(a) Advertisement revenue of 2019 is approximately 40% larger than 2020's advertisement revenue.
(b) Revenue from ads in 2019 is comparatively more than revenue from circulation however there was vice versa in 2020
(c) The price per advertisement had a sharp decline in 2020 while in 2019 it was the highest
(d) In 2020, the ad revenue declined awfully due to the government's confinement on the number of ads per day
(e) Only (a)& (b)

Q55. What is/are true of ramification(s) of newspaper revenue decline on employment?
(a) The number of employees in the digital newspaper industry increased by 35% after a layoff from the newspaper industry
(b) The number of employees in the newspaper industry has declined more than fifty-percent since 2006
(c) Employees of the larger newspaper were badly affected by the Covid-19 as compared to smaller newspaper's
(d) Both (b) & (c)
(e) None of these

Q56. Which of the following statements is/are true with reference to the information given in the passage?
(i) As the result of the pandemic and slow economy, companies retrenched their spending on the marketing
(ii) According to the Pew report, 85 local newsrooms were permanently shut down
(iii)Employment is stagnant despite decline in ad revenue as employees shifted to the digital newspaper industry
(a) Both (i) & (ii)
(b) Both (iii) & (iii)
(c) Only (iii)
(d) Both (i) & (iii)
(e) Only (i)

Q57. Which of the following words is an antonym of '**temporarily**' given in the passage?
(a) deftly
(b) impeccably
(c) perpetually
(d) effrontery
(e) None of these

Q58. Which of the following words is synonym of '**climbing**' given in the passage?
(a) dwindle
(b) rife
(c) perusal
(d) mount
(e) None of these

Q59. Which of the following can be used to fill the blank given in the passage in order to make a grammatically correct and contextually meaningful sentence?
(a) emerged
(b) reiterate
(c) conducive
(d) both (a) and (c)
(e) None of these

Q60. Which of the following statements is/are false as per the information given in the passage?
(a) Pew research report is based on many industry sources
(b) Weekdays newspaper circulation in 2020 was 2.23 crores.
(c) In 2011, digital newspapers' ad revenue share was 17%, and it has steadily risen since.
(d) $8.8 billion is the lowest ad revenue till now
(e) None of these

Directions (61-68): Read the following passage carefully and answer the questions given below them.

India's one million Accredited Social Health Activists (ASHA) volunteers have received arguably the biggest international recognition in form of the World Health Organization's Global Health Leaders Awards 2022. The ASHAs were among the six awardees announced at the 75th World Health Assembly in Geneva, Switzerland. This World Health Organization (WHO) award is in recognition of the work done by ASHA volunteers during the COVID-19 pandemic as well as for serving as a link between communities and health systems. It is important to note that even before the COVID-19 pandemic, ASHAs have made **extraordinary** contributions towards enabling increased access to primary health-care services; i.e. maternal and child health including immunisation and treatment for hypertension, diabetes and tuberculosis, etc., for both rural and urban populations, with special focus on difficult-to-reach habitations.

Over the years, ASHAs have played an outstanding role in making India polio free, increasing routine immunisation coverage; reducing maternal mortality; improving new-born survival and in greater access to treatment for common illnesses. India launched the ASHA programme in 2005-06 as part of the National Rural Health Mission. **Initially rolled out in rural areas, with the launch of the National Urban Health Mission in 2013, it was extended to urban settings as well as.** Each of these women-only volunteers work with a population of nearly 1,000 people in rural and 2,000 people in urban areas, with **flexibility** for local adjustments. The core of the ASHA programme has been an intention to build the capacity of community members in taking care of their own health and being partners in health services.

The ASHA programme was inspired from the learnings from two past initiatives: one from the late 1970s and the other of the early 2000s. In 1975, a WHO monograph titled 'Health by the people' and then in 1978, an international conference on primary health care in Alma Ata (in the then USSR and now in Kazakhstan), gave emphasis for countries recruiting community health workers to strengthen primary health-care services that were participatory and people centric. Soon after, many countries launched community health worker programmes under different names. In India, they were called community health volunteers. However, within a few years of implementation, the community health volunteer scheme met many hurdles and evaluations which followed, indicating that a key reason for sub-optimal success was a failure of community health volunteers to make a community connect (in fact, people did not perceive them to be any different from existing government staff). The lack of political will was another factor behind scaling down, before the community health volunteer programme was forgotten.

Q61. What is the ground for rewarding with WHO's Global Health Recognition Award to ASHA?
(a) For facilitating reach to primary healthcare services even before Covid-19 throughout the country
(b) To appreciate the volunteering of ASHA workers throughout the pandemic
(c) For helping people to have access to health systems during the Covid-19 breakout
(d) All of these
(e) None of these

Q62. What is/are the mentioned achievement(s) of ASHA workers over the years in public wellbeing?
(a) lessened nascent mortality along with maternal mortality by making treatment reachable for people
(b) ASHA's made routine immunization attainable to more people across the country
(c) ASHA's have contributed profoundly to eliminating polio from India
(d) Only (b) and (c)
(e) All of these

Q63. For what central purpose, the ASHA program was launched?
(a) ASHA program was launched to ensure food security in the rural village
(b) To make the community capable to look after their as well as others' health
(c) To inform primary health centers about unusual health disease outbreaks
(d) For spreading awareness about the importance of education in the society
(e) None of these

Q64. Why did the community health volunteer program fail?
(a) A lack of funding was the hurdle in the following path of well-being and development
(b) Inclination of politicians' induced the failure of the mentioned program
(c) Improper administration and supervision were the major reasons for its failure
(d) Failure of its volunteers to associate community was also the reason for non-achievement
(e) Both (b) and (d)

Q65. Which of the following statements is TRUE with respect to the paragraph?
(i) World Health Assembly awarded six organizations
(ii) The title of WHO's monograph programme was 'Health of the people'
(iii) World Health Assembly was convened in Germany
(a) Both (i) & (ii)
(b) Both (iii) & (iii)
(c) Only (iii)
(d) Both (i) & (iii)
(e) Only (i)

Q66. In the given passage, a sentence is given in bold which may or may not have an error. Choose the option which depicts the erroneous part of the bold sentence. Choose the option 'No error' as your answer if the given sentence is error-free.
(a) **Initially rolled out in rural areas,**
(b) **with the launch of the**
(c) **National Urban Health Mission in 2013, it was**
(d) **extended to urban settings as well as**
(e) No error

Q67. Which of the following words is an antonym of '**extraordinary**' given in the passage?
(a) bodacious
(b) bounty
(c) standard
(d) reminiscence
(e) None of these

Q68. Which of the following words is a synonym of '**flexibility**' given in the passage?
(a) vivid
(b) nimble
(c) pliable
(d) timid
(e) None of these

Directions (69-76): In the following passage, some of the words have been left out, each of which is indicated by a letter. Find the suitable word from the options given for each blank and fill up the blanks with appropriate words to make the paragraph meaningfully complete.
Americans love to compete. More Americans strongly _____ (A) than any other surveyed country's residents that they like situations where they compete. Praised in various contexts, competition is the _____ (B) of US economic policy. The US Supreme Court observed, 'The heart of our national economic policy long has been _____ (C) in the value of competition.' The belief in competition is not only _____ (D) in the antitrust laws. Every US executive agency, for example, is legally required to have an advocate for competition.

Competition advocacy is _____ (E) internationally. The past 20 years _____ (F) more countries with antitrust laws and the birth and growth of the International Competition Network (ICN), an international organization of governmental competition authorities, with over 100 member countries. Although different constituencies accept to different degrees the benefits of competition and competition policy, the strongest competition advocates, in an ICN survey, were among the academic community, consumer associations, media, and nongovernmental organizations. Within OECD countries, competition is now _____(G) accepted as the best available mechanism for maximising the things that one can demand from an economic system in most_____ (H).

Q69. Which of the following words will fit in the given blank (A)?
(a) agreed
(b) consent
(c) relinquish
(d) embellished
(e) augmented

Q70. Which of the following words will fit in the given blank (B)?
(a) intensity
(b) sophistication
(c) backbone
(d) alleviation
(e) cognizant

Q71. Which of the following words will fit in the given blank (C)?
(a) pervasive
(b) thought
(c) enormous
(d) lament
(e) faith

Q72. Which of the following words will fit in the given blank (D)?
(a) rigid
(b) embodied
(c) prodigious
(d) lethargy
(e) fiasco

Q73. Which of the following words will fit in the given blank (E)?
(a) clamoring
(b) renegading
(c) unravelling
(d) thriving
(e) inferencing

Q74. Which of the following words will fit in the given blank (F)?
(a) ominous
(b) insinuated
(c) witnessed
(d) breather
(e) dormant

Q75. Which of the following words will fit in the given blank (G)?
(a) broadly
(b) unintentionally
(c) proportionally
(d) amply
(e) anxiously

Q76. Which of the following words will fit in the given blank (H)?
(a) permeates
(b) natives
(c) circumstances
(d) ramifications
(e) exceptions

Directions (77-81): In each of the questions given below four words are given in bold. These four words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should interchange with each other in order to make the sentence grammatically and contextually correct. Find the correct combination of the words that replace each other. If the sentence is correct as it is then select option (e) as your choice.

Q77. Educational loans, even with government **cripple (A)** guarantee, are no answer, as the **mounting (B)** debt of educational loans will **collateral (C)** the economy of development and public **welfare (D).**
(a) (A) – (C) and (B)-(D)
(b) (C) – (D)
(c) (B) – (C) and (A)-(D)
(d) (A) - (C)
(e) No interchange required

Q78. Every Judge of the Supreme Court shall be **appointed (A)** by the President by **Judges (B)** under his hand and seal after **consultation (C)** with such of the **warrant (D)** of the Supreme Court.
(a) (B)-(D)
(b) (C) – (D)
(c) (B) – (C) and (A)-(D)
(d) (A) - (D)
(e) No interchange required

Q79. Ladakh is one of the highest **valley (A)** of the world and its natural **plains (B)** consist mainly of high **features (C)** and deep **regions (D).**
(a) (A) – (C) and (B)-(D)
(b) (C) – (D)
(c) (B) – (C) and (A)-(D)
(d) (A) - (D)
(e) No interchange required

Q80. Though global warming **trend (A)** has been going on for a **burning (B)** time, its pace has **significantly (C)** increased in the last hundred years due to the **long (D)** of fossil fuels
(a) (B)-(D)
(b) (C) – (D)
(c) (B) – (C) and (A)-(D)
(d) (A) - (D)
(e) No interchange required

Q81. Junk Food is very **eating (A)** that is slowly **harmful (B)** away the **generation (C)** of the present **health (D)**.
(a) (A) – (B)
(b) (C) – (D)
(c) (D) – (C) and (A)-(B)
(d) (A) - (D)
(e) No interchange required

Directions (82-85): In the questions given below few sentences are given in three column 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 A contains starting phrase of statement. Choose the best possible combination as your answer accordingly from the options to form a correct, coherent sentence.

Q82. **COLUMN (I)**
(A) The distinction between an asset and currency may not
(B) Because blue is favored by so many people, it is
(C) It is going to be a while before the Telangana capital sees
COLUMN (II)
(1) often viewed as a non-threatening
(2) be so much legal as it is about the inherent
(3) becoming a medium of exchange would be
COLUMN (III)
(D) he interests of investors are protected and the
(E) characteristic of what is considered an asset or currency
(F) color that can seem conservative and traditional

(a) CE1 and BF2
(b) A2E and B1F
(c) AF3
(d) B3E and CF2
(e) None of these

Q83. COLUMN (I)
(A) Smoke could be seen billowing from
(B) Someone has been held right now
(C) An investigation has been opened into
COLUMN (II)
(1) committee member for safety
(2) the blaze on Sunday in the
(3) a collection of rare books and
COLUMN (III)
(D) fire has not been contained
(E) was quickly cordoned off
(F) parliament complex's oldest wing
(a) CE1 and BF2
(b) A2E
(c) AF3
(d) C2F
(e) None of these

Q84. COLUMN (I)
(A) Although people believe that social networking
(B) This emphasis on redistribution corresponds
(C) There is no doubt that tobacco use is not only
COLUMN (II)
(1) the promises of which still exist but
(2) sites are harmful in many ways,
(3) highly detrimental to public health
COLUMN (III)
(D) but also puts economic burden
(E) as they were during the last years
(F) they are also very beneficial.
(a) C3D and A2F
(b) A2E
(c) AF3
(d) C2F
(e) None of these

Q85. COLUMN (I)
(A) More than the question of inequality, the conflict between
(B) Novak Djokovic was denied entry into Australia after his
(C) The government introduced the Prohibition of marriages,
COLUMN (II)
(1) by a late jailor more than two decades ago came
(2) visa was cancelled following a 10-hour stand-off
(3) let in after a thorough check at the security gates
COLUMN (III)
(D) many people have called the Bill an attack on personal laws
(E) with the Australian Border Force at Melbourne airport
(F) disasters such as the COVID-19 pandemic for this knot
(a) CE1 and BF2
(b) A2E
(c) B2E
(d) C2F
(e) None of these

Directions (86-90): In the given questions, three statements are given in each question. Three statements may or may not have errors. Find out which statement(s) is/are error-free. Choose the option which depicts the error-free statement(s). (Ignore errors of punctuation, if any.)

Q86. (i) A joint statement issued after the meeting addressed the concerns arising out of the crisis.
(ii) A regulatory framework is most importance when consumers and farmers are geographically separated
(iii) Certain chemicals present in makeup can contains ingredients that researchers have linked to serious health concerns
(a) All of these
(b) Both (iii) & (ii)
(c) Only (iii)
(d) Both (i) & (iii)
(e) Only (i)

Q87. (i) Jupiter is largest planet in the solar system, named after the king of the gods in Roman mythology.
(ii) World Environment Day has created a platform to raise awareness that the world is facing problems such as air pollution, plastic pollution, etc.
(iii) At a time when an acute heatwave has affected more than half the country, the water level in India's major reservoirs and river basins have fallen to 21% of its average
(a) Both (i) & (ii)
(b) Only (ii)
(c) All of these
(d) Both (i) & (iii)
(e) Only (i)

Q88. (i) Addiction is an inability to stop engaging in a behavior even though it is causing psychological and physical harm.
(ii) This extreme pollution in the form of smog effects our eyes, causing allergies and damage.
(iii) Salads and soups are just a few ideas for increasing the number of tasty vegetables in your meals.
(a) All of these
(b) Both (iii) & (ii)
(c) Only (iii)
(d) Both (i) & (iii)
(e) Only (i)

Q89. (i) Not getting enough quality sleep regularly raise the risk of many diseases and disorders
(ii) Programs with the name of Azadi Ka Amrit Mahotsav are being organize to celebrate and commemorate 75 years of progressive Independent India.
(iii) Cell phones emits low levels of non-ionizing radiation when in use.
(a) Both (i) & (ii)
(b) Both (iii) & (ii)
(c) None of these
(d) Both (i) & (iii)
(e) Only (i)

Q90. (i) Intuition is that feeling in your gut when you instinctive know that something you are doing is right or wrong.
(ii) Harassment in the workplace is prohibited under state and federal law.
(iii) Conversation helps to bring people together in a community by giving a voice to all who is involved and uniting all as one.
(a) Both (i) & (ii)
(b) Both (ii)
(c) Only (iii)
(d) Both (i) & (iii)
(e) All of these

Q91. What is the 2's complement of the binary number 0101?
(a) 1010
(b) 1011
(c) 1101
(d) 0111
(e) 1001

Q92. What is the function of the Ctrl + V shortcut key?
(a) Copy the selected item
(b) Paste the copied or cut item
(c) Cut the selected item
(d) Undo the previous action
(e) Select all items

Q93. In MS PowerPoint, the footer option is located under which tab?
(a) Home
(b) Insert
(c) Design
(d) View
(e) Slide Show

Q94. The .xls extension is used for which type of files?
(a) Word documents
(b) PowerPoint presentations
(c) Excel spreadsheets
(d) Text files
(e) Image files

Q95. The .wav extension is associated with which type of file format?
(a) Video file
(b) Audio file
(c) Image file
(d) Text file
(e) Spreadsheet file

Q96. Cache is a type of which memory?
(a) Volatile memory
(b) Non-volatile memory
(c) External memory
(d) Read-only memory (ROM)
(e) Flash memory

Q97. In MS PowerPoint, the themes option is located under which tab?
(a) Home
(b) Insert
(c) Design
(d) View
(e) Transitions

Q98. Which one does not self-replicate itself?
(a) Virus
(b) Worm
(c) Trojan Horse
(d) Bacteria
(e) Spyware

Q99. Which of the following is an output device?
(a) Keyboard
(b) Scanner
(c) Monitor
(d) Mouse
(e) Microphone

Q100. Ctrl +] is used for which of the following functions in Word Processing Software?
(a) Increase font size
(b) Decrease font size
(c) Indent paragraph
(d) Align text to the right
(e) Open a new document

Q101. What term is used to describe unsolicited, irrelevant, or inappropriate messages sent over the internet, typically in bulk, especially through email?
(a) Malware
(b) Spam
(c) Phishing
(d) Adware
(e) Trojan

Q102. Which of the following is not an operating system?
(a) Windows
(b) Linux
(c) Google Chrome
(d) macOS
(e) Android

Q103. In MS PowerPoint, which tab is used to add animation effects to slides?
(a) Home
(b) Insert
(c) Transitions
(d) Animations
(e) Design

Q104. Which of the following is not a product of MS Office?
(a) Word
(b) Excel
(c) Photoshop
(d) PowerPoint
(e) Outlook

Q105. Which of the following is an antivirus?
(a) Microsoft Word
(b) Google Chrome
(c) Adobe Photoshop
(d) Norton
(e) VLC Media Player

Q106. In order to stop the Slide Show in PowerPoint, which of the following buttons is used?
(a) Esc
(b) Ctrl + S
(c) Shift + F5
(d) Alt + Tab
(e) F11

Q107. Which of the following operating systems is used by Apple Desktop?
(a) iOS
(b) Linux
(c) macOS
(d) Android
(e) Windows

Q108. An external port connects the motherboard with which of the following devices?
(a) Printer
(b) Processor
(c) RAM
(d) Hard disk
(e) Graphics card

Q109. Which of the following statements is true about PROM?
(a) PROM can be erased and reprogrammed multiple times
(b) PROM can be programmed only once
(c) PROM is a type of volatile memory
(d) PROM is primarily used for temporary data storage
(e) PROM stores data even when the power is turned off, but is rewritable

Q110. Why are drafts used in email?
(a) To store emails that have been sent
(b) To store emails that are deleted
(c) To save unfinished or unsent emails
(d) To automatically reply to emails
(e) To store spam emails

Directions (111-115): Read the following information carefully and answer the questions given below.

Total number of bottles manufactured by three (A, B and C) different companies in two (2022 and 2023) different years.

Total bottles manufactured by C in 2022 is 26 and total bottles manufactured by A in 2023 will be $\frac{100}{3}\%$ more than bottles manufactured by B in 2022. Total bottles manufactured by A in 2022 is 25 more than that of in 2023. The bottles manufactured by C in 2023 are 20% less than the bottles manufactured by A in 2022. The average number of bottles manufactured by all three companies in 2022 is 52.

Q111. If bottles manufactured by B in 2023 are 25% more than that of bottles manufactured by A in 2023, then find the ratio of bottles manufactured by B in 2022 to 2023.

(a) 5:3
(b) 1:2
(c) 3:5
(d) 2:5
(e) 7:4

Q112. Bottles manufactured by C in 2022 is what percentage of bottles manufactured by A in 2023 (approx.)?

(a) 36%
(b) 29%
(c) 43%
(d) 51%
(e) 18%

Q113. Find the difference between bottles manufactured A in both the years and bottles manufactured by all the companies in 2023.

(a) None of these
(b) 24
(c) 35
(d) 16
(e) Can't be determined

Q114. Bottles manufactured by B in 2021 and bottles manufactured by C in 2023 are in the ratio of 3:4 respectively. Find the sum of bottles manufactured by B in 2022 and 2021.

(a) 78
(b) 102
(c) 84
(d) 96
(e) 68

Q115. Selling price of each bottle sold by C in 2022 is Rs.8. If half of the bottles are sold out of the total bottles manufactured by C in 2022, then find the total revenue generated by C (in Rs).
(a) 178
(b) 104
(c) 184
(d) 126
(e) 166

Directions (116-120): Find the missing number in the given series.

Q116. ?, 4, 8, 24, 96, 480
(a) 24
(b) 12
(c) 48
(d) 30
(e) None of these

Q117. 27, 40, 53, 66, 79, ?
(a) 100
(b) 10
(c) 92
(d) 96
(e) 79

Q118. 101, 102, 110, 137, 201, ?
(a) 311
(b) 227
(c) 301
(d) 324
(e) 326

Q119. 1110, 1122, 1146, ?, 1230, 1290
(a) 1145
(b) 1182
(c) 1122
(d) 1190
(e) 1130

Q120. 22, 30, 57, 182, 525, ?
(a) 1830
(b) 1821
(c) 1856
(d) 1857
(e) 1525

Directions (121-125): The table shows the total people travelling from different means of transportation and the ratio of male to females using transportation on Friday. Read the table and answer the questions given below.

Transportations	Total people travelling	Males: females
Metros	330	5:6
Autos	360	2:1
Cars	300	13:17
Buses	450	4:5

Q121. Males traveling from autos on Sunday is 65% of the females travelling from metros on Friday. If the total people travelling from Autos on Sunday is half of travelling from buses, then find the number of females travelling from autos on Sunday.
(a) 116
(b) 124
(c) 108
(d) 112
(e) 104

Q122. The fair of auto for each male and female is Rs Y and Rs 6000 respectively. If the total revenue generated by autos from all males and females is Rs 330Y, then find the value of 0.5Y.
(a) 8000
(b) 7500
(c) 2500
(d) 4000
(e) 5000

Q123. The number of school-going and office-going females using cars is in the ratio of 11:6, respectively. If the number of office-going males using cars is 25% less than that of females, then find the ratio of school-going males to school-going females by cars.
(a) 10:7
(b) 13:9
(c) 8:13
(d) 11:7
(e) 17:22

Q124. The average number of females travelling from Metros, Autos, and Rickshaws is 240, and the ratio of the males travelling from buses to Rickshaws is 5:3, respectively. The number of males travelling from Rickshaws is what percentage of the number of females travelling from Rickshaws?
(a) 28 4/7%
(b) 66.67%
(c) 14 1/7%
(d) 8.33%
(e) 25%

Q125. If the difference between the number of males travelling from metros and autos together and the number of females travelling from cars and buses is X, then find the square of X.

(a) 1600
(b) 900
(c) 3600
(d) 4900
(e) 8100

Directions (126-130): In each of these questions, two equation (I) and (II) are given. You have to solve both the equations and give answer

Q126.

I. $x^2 + 10x - 75 = 0$
II. $y^2 + 13y + 22 = 0$

(a) If x>y
(b) If x≥y
(c) If x<y
(d) If x≤y
(e) If x = y or no relation can be established between x and y.

Q127.

I. $y^2 + 16y + 55 = 0$
II. $2x^2 - 3x - 14 = 0$

(a) If x>y
(b) If x≥y
(c) If x<y
(d) If x≤y
(e) If x = y or no relation can be established between x and y.

Q128.

I. $y = \sqrt{169}$
II. $4x^2 = 676$

(a) If x>y
(b) If x≥y
(c) If x<y
(d) If x≤y
(e) If x = y or no relation can be established between x and y.

Q129.

I. $3x^2 - 5x - 28 = 0$

II. $y^2 - 10y + 25 = 0$

(a) If x>y

(b) If x≥y

(c) If x<y

(d) If x≤y

(e) If x = y or no relation can be established between x and y.

Q130.

I. $x^2 + 7x - 18 = 0$

II. $y^2 - y - 42 = 0$

(a) If x>y

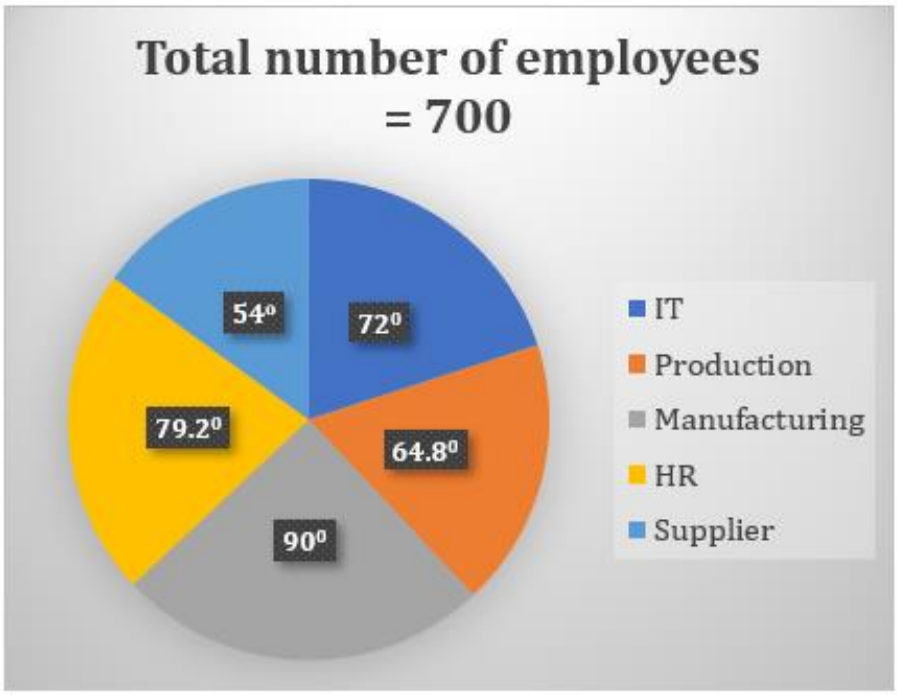
(b) If x≥y

(c) If x<y

(d) If x≤y

(e) If x = y or no relation can be established between x and y.

Directions (131-135): Read the following pie chart carefully and answer the questions given below. The pie chart shows the degree distribution of people working in five departments (IT, production, manufacturing, HR and supplier) in a company.



Q131. If the number of female employees in IT is 50 more than that of male employees, then find the number of male employees in IT are how many more/less than total employees in HR.
(a) 104
(b) 150
(c) 106
(d) 109
(e) 105

Q132. Find the ratio of the number of employees in IT and in production together to that of employees in HR and supplier together.
(a) 31 :37
(b) 35 :37
(c) 38 :39
(d) 38 :35
(e) 38 :37

Q133. Find the percentage distribution of employees in Manufacturing.
(a) 10%
(b) 18%
(c) 24%
(d) 25%
(e) 16%

Q134. Find the difference between the number of employees in supplier and in Manufacturing together and the number of employees in production and HR together.
(a) 12
(b) 0
(c) 5
(d) 6
(e) 8

Q135. If the number of employees in marketing is 25% more than that in IT, then the number of employees in supplier is how much percentage more or less than the number of employees in marketing?
(a) 40%
(b) 45%
(c) 25%
(d) 50%
(e) 75%

Q136. B alone can complete a piece of work in 36 days, while the efficiency of C is 50% more than B. If the efficiency of A is 20% less than that of C and three all starts working together, then find in how many days (approximately) the whole work will be completed?

(a) 12 days
(b) 18 days
(c) 15 days
(d) 6 days
(e) 10 days

Q137. The time taken by a boat to cover 126 km upstream is four hours more than the time taken by the same boat to cover the same distance downstream. If speed of boat in still water is 250% of speed of stream, then find the difference between the speed of boat in still water and speed of stream (km/hr).

(a) 13
(b) 15
(c) 16
(d) 17
(e) 18

Q138. A invested Rs.20000 on compound interest at the rate of R% per annum. If the compound interest received in second year is Rs.3450 and in third year is Rs.3967.5 respectively, then find the value of R.

(a) 30%
(b) 15%
(c) 10%
(d) 12.5%
(e) 44%

Q139. There are three numbers, the second number is three times of the first number, while third number is six times the second number. If the average of these three numbers is 66 and a fourth number, which is four more than the average of these three numbers, then find the average of first and fourth number.

(a) 38.5
(b) 38
(c) 39
(d) 39.5
(e) 40

Q140. Three points A, B and C are in a straight line. Car X travels from A to B at a speed of 50 km/hr and car Y travels from A to C at a speed of 60 km/hr. If the time taken by both the cars to reach their destination is same and the distance of B from A is 100 km, then find the distance between C and B (in km).
(a) 30 km
(b) 12 km
(c) 24 km
(d) 20 km
(e) 15 km

Q141. Ram and Shyam invest in a partnership business in the ratio of 3:4 and Ram got Rs.2700 as a profit share out of total profit of Rs.5100 and the difference between the time period between Ram and Shyam is 3 months, then find for how many months Ram kept his investment.
(a) 6 months
(b) 3 months
(c) 9 months
(d) 12 months
(e) 15 months

Q142. The ratio of the present ages of a husband and his wife is 11:8. His only son was born three years ago. If after five years, the average age of all three persons is 25 years, then find the age of the husband when his son is ten years old?
(a) 50 years
(b) 45 years
(c) 40 years
(d) 35 years
(e) 48 years

Q143. A marked an article X% above its cost price and allows 25% discount. If he sold the article at 12.5% on profit, then find the value of X/2?
(a) 20
(b) 25
(c) 10
(d) 15
(e) 5

Q144. 60 liters mixture of water and milk is in the ratio of 5:7 respectively. 24 liters of mixture is replaced with the syrup and 10 liters of pure milk is added in the remaining mixture. Find the ratio of milk, water and syrup in the resultant mixture respectively.
(a) 7: 5: 18
(b) 31: 15: 24
(c) 17: 5: 7
(d) 7: 3: 2
(e) 9: 5: 8

Q145. A train of X meter long crosses the man standing on a platform in 9 sec. and same train crosses the (X + 50) meters bridge in 19 sec. Find time taken by train to cross another train of (X – 200) meters running in opposite direction with the speed of 72 km/hr.

(a) 8 sec.
(b) 14 sec.
(c) 12 sec.
(d) 15 sec.
(e) 10 sec.

Directions (146-150): What approximate value will come in place of question mark (?) in the following questions? (You are not expected to calculate the exact value)

Q146. 2549.1 + 2556.04 – 1841.2 – 1984.3 = ?
(a) 1310
(b) 1260
(c) 1220
(d) 1340
(e) 1280

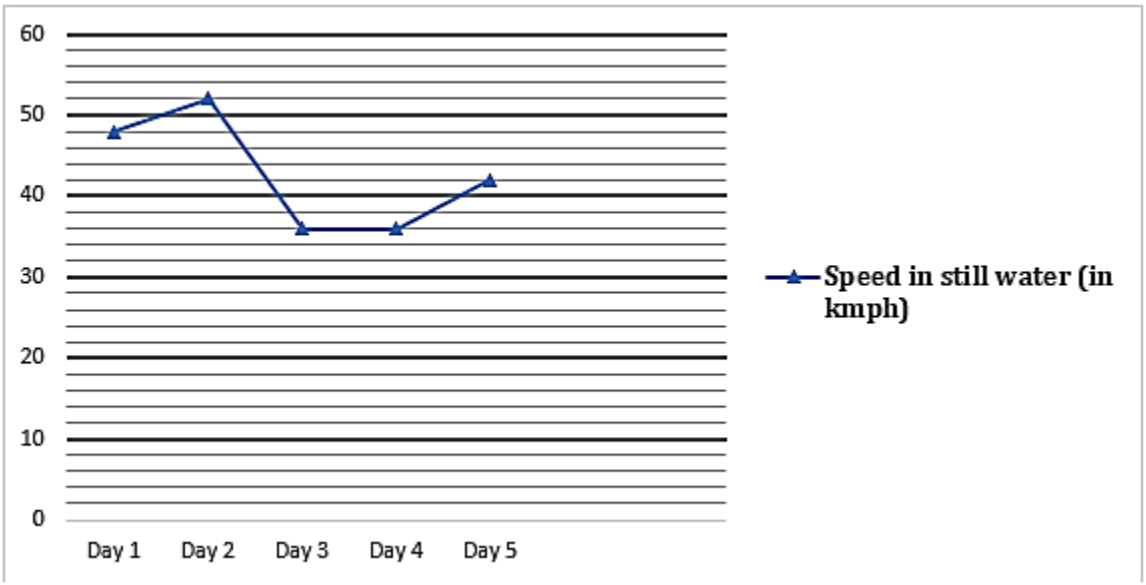
Q147. 1089.89 × 9.87 – 135.018 × 44.951 = ?
(a) 4675
(b) 4825
(c) 4725
(d) 4875
(e) 4775

Q148. 61.98 ÷ (31.03% of 200) + ? = 8.023
(a) 10
(b) 1
(c) 4
(d) 14
(e) 7

Q149. $1728.011 \div 11.99^3 + 10.96^3 = ?$
(a) 1221
(b) 1332
(c) 1728
(d) 1421
(e) 1561

Q150. 100.99 × 20.09 – 19.94 × 99.97 + 55.02 = ?
(a) 75
(b) 67
(c) 81
(d) 71
(e) 85

Directions (151-156): Line chart given below shows speed of boat in still water in five different days & table shows time taken to cover certain distance downstream. It also shows distance travelled in upstream by the boat in five different days. Study the data carefully and answer the following questions.



Days	Time taken in downstream (in hours)	Distance travelled in upstream (in km)
Day 1	---	56
Day 2	1.5	---
Day 3	---	40
Day 4	1.25	---
Day 5	---	48

Q151. If time taken by boat on day1 in upstream is 1.4 hours which is 12% more than the time taken by the same boat on day1 in downstream, then what is the distance travelled by boat on day1 in downstream?
(a) 30 km
(b) 40 km
(c) 50 km
(d) 70 km
(e) 60 km

Q152. If the speed of stream on day3 is 12 kmph and the ratio of the time taken by the boat to cover certain distances in upstream to downstream is 10:7, then what is the difference between the distance travelled by boat in upstream and that of in downstream on day3?
(a) 16 km
(b) 18 km
(c) 24 km
(d) 32 km
(e) 42 km

Q153. On day5, distance travelled by boat in downstream is 25% more than the distance travelled in upstream and the ratio of time taken by boat to cover the distance in upstream to downstream is 16:15. What is the speed of stream on day5 (in km/hr)?
(a) 9
(b) 8
(c) 4
(d) 5
(e) 6

Q154. If time taken in upstream is 2 hours, then find the speed of the current on day 5.
(a) 12 kmph
(b) 16 kmph
(c) 18 kmph
(d) 14 kmph
(e) none of these

Q155. The distance travelled by the boat in downstream on day4 and day 2 is 50 km and 84 km respectively. If the time taken in upstream on day2 and day4 is same as the time taken in downstream on same days, then find the difference between distance travelled by boat in upstream on day2 and day4?
(a) 23 km
(b) 44 km
(c) 24 km
(d) 32 km
(e) 42 km

Q156. On day 3, downstream distance travelled is 8 km more than 5 times the upstream distance. If total upstream and downstream time is 6 hours, then find the speed of current.
(a) 16 kmph
(b) 24 kmph
(c) 11 kmph
(d) 8 kmph
(e) None of these

Directions (157-160): The following questions are accompanied by two statements i.e. statement (I) and statement (II). You have to determine which statement (s) is/are sufficient to answer the questions.

Q157. Find the ratio of present age of A to age of B three years hence.

I. Two years hence the age of A will be $\frac{2}{3}rd$ of the present age of B.
II. The average of present age of A, B and C is 20 years.
(a) Only I alone
(b) Both I and II together are not sufficient
(c) Either I alone or II alone
(d) Only II alone
(e) Both I and II together are sufficient

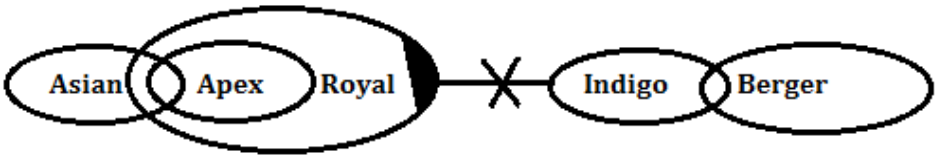
Q158. Find the value of (x+y).
I. 40% of x is 125% of y.
II. x – y = 50% of x + 36
(a) Either I alone or II alone
(b) Both I and II together are not sufficient
(c) Only I alone
(d) Both I and II together are sufficient
(e) Only II alone

Q159. The ratio of length to breadth of rectangle is 12 : 5, find the perimeter of the rectangle.
I. The diagonal of the rectangle is 13 cm.
II. The area of the rectangle is 60 cm^2.
(a) Only II alone
(b) Both I and II together are not sufficient
(c) Only I alone
(d) Both I and II together are sufficient
(e) Either I alone or II alone

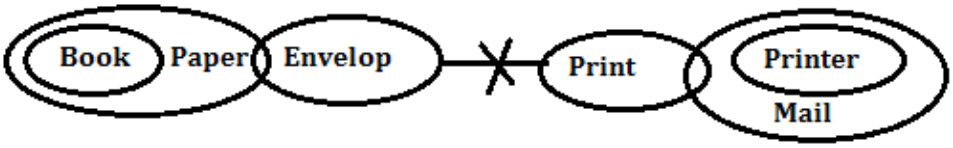
Q160. Find the total employees in the company.
I. The ratio of male employees to female employees in the company is 1 : 2
II. Total female employees are 560 and total male employees are 75% of female employees.
(a) Both I and II are together sufficient
(b) Only statement I
(c) Only statement II
(d) Both I and II together are not sufficient
(e) Either I or II alone

Solutions

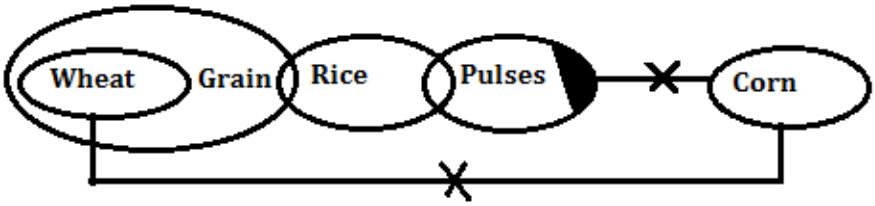
S1. Ans.(c)
Sol.



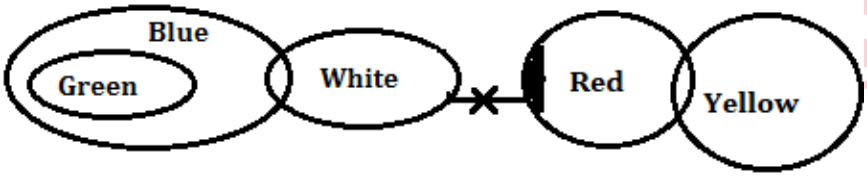
S2. Ans.(e)
Sol.



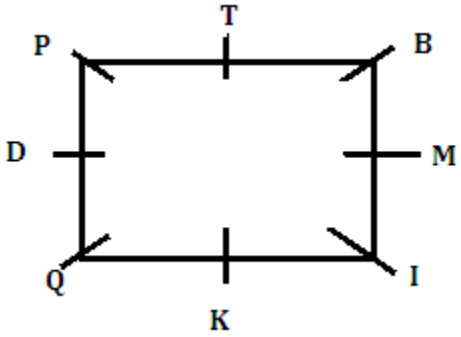
S3. Ans.(b)
Sol.

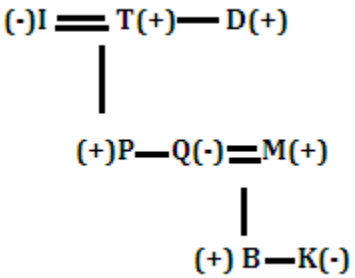


S4. Ans.(e)
Sol.



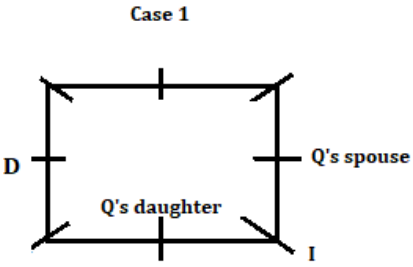
S5. Ans.(b)
Sol. Final arrangement –

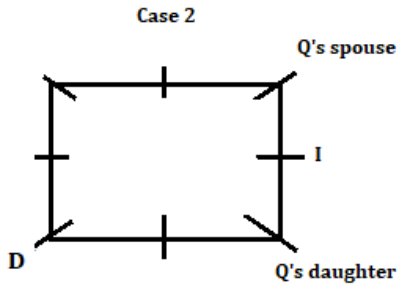


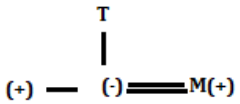


Clues- M is son in law of T. Q's only daughter sits second to the right of D. One person sits between Q's spouse and the one who is Q's daughter. D is unmarried and brother-in-law of I. T's only son sits opposite to I. I sits to the immediate right of Q's daughter.

Inference- Here we have 2 possible cases.

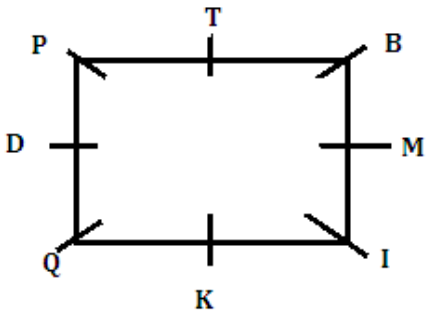


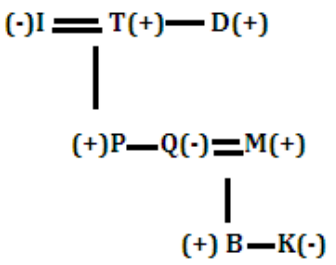




Clues- P sits adjacent to D. P neither sits adjacent to Q's daughter nor sits at the middle of the side. K is child of M who has two children. K sits adjacent to I and is unmarried. T sits immediate right of B. I's daughter sits opposite to B. Gender of B and T is same.

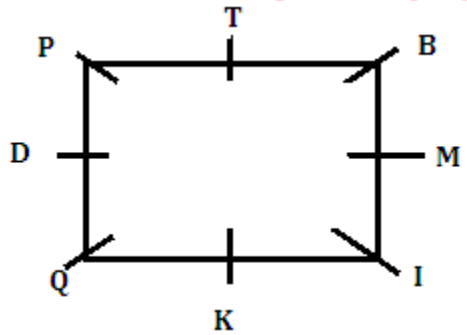
Inference- Here case 2 is ruled out now. So, the final arrangement is-

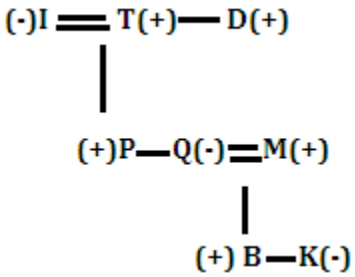




S6. Ans.(c)

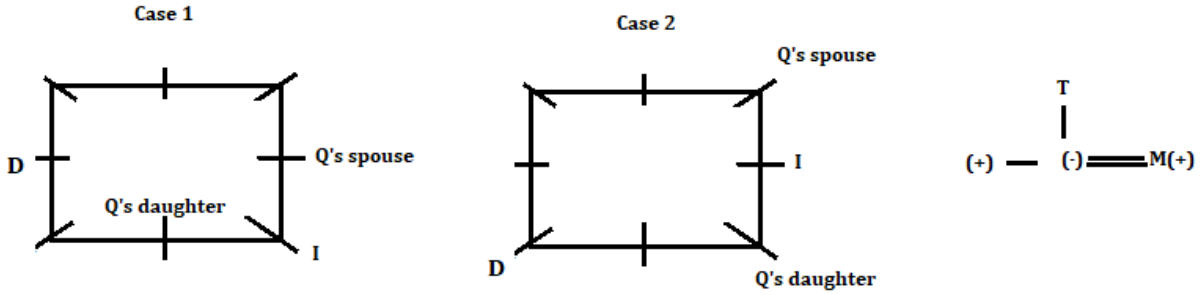
Sol. Final arrangement –





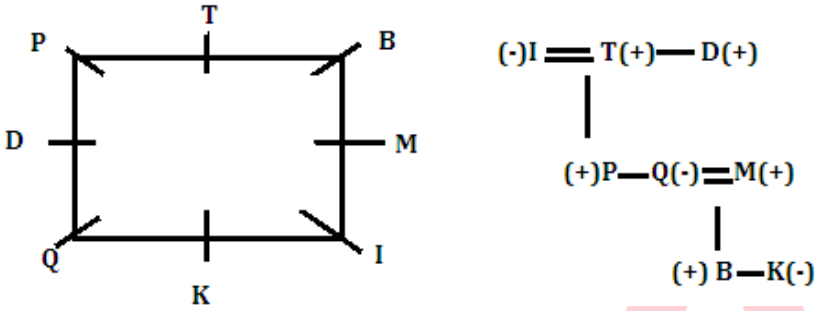
Clues- M is son in law of T. Q's only daughter sits second to the right of D. One person sits between Q's spouse and the one who is Q's daughter. D is unmarried and brother-in-law of I. T's only son sits opposite to I. I sits to the immediate right of Q's daughter.

Inference- Here we have 2 possible cases.



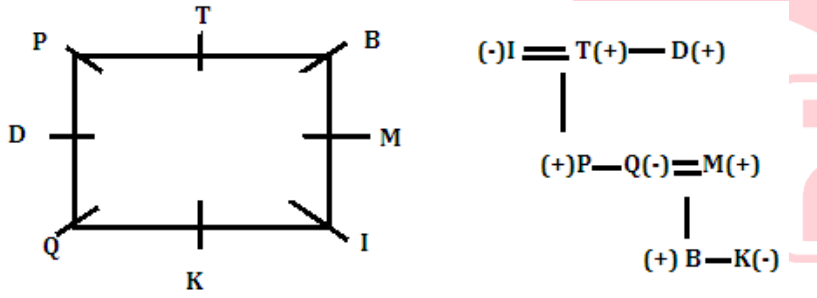
Clues- P sits adjacent to D. P neither sits adjacent to Q's daughter nor sits at the middle of the side. K is child of M who has two children. K sits adjacent to I and is unmarried. T sits immediate right of B. I's daughter sits opposite to B. Gender of B and T is same.

Inference- Here case 2 is ruled out now. So, the final arrangement is-



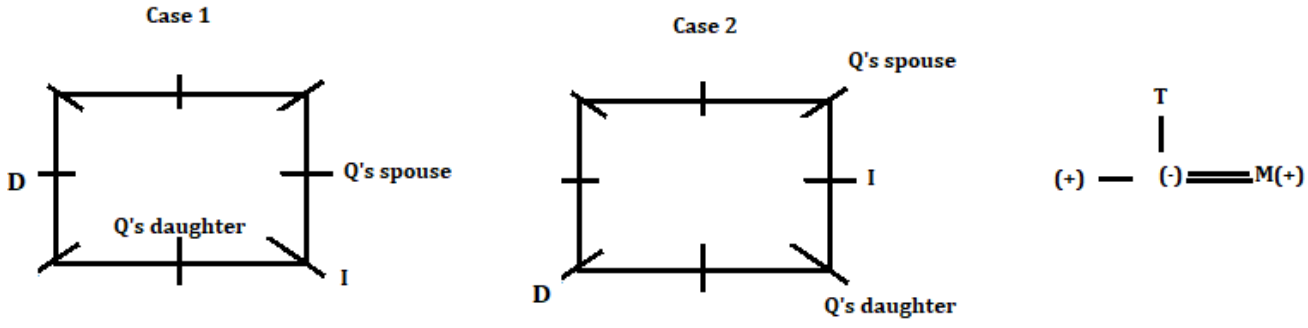
S7. Ans.(e)

Sol. Final arrangement –



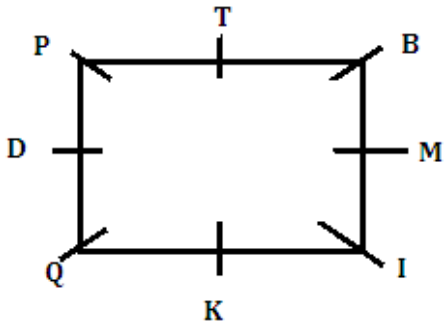
Clues- M is son in law of T. Q's only daughter sits second to the right of D. One person sits between Q's spouse and the one who is Q's daughter. D is unmarried and brother-in-law of I. T's only son sits opposite to I. I sits to the immediate right of Q's daughter.

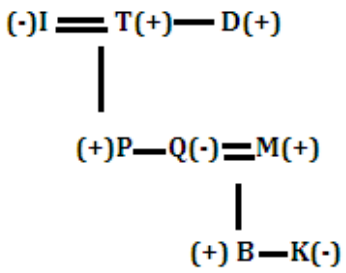
Inference- Here we have 2 possible cases.



Clues- P sits adjacent to D. P neither sits adjacent to Q's daughter nor sits at the middle of the side. K is child of M who has two children. K sits adjacent to I and is unmarried. T sits immediate right of B. I's daughter sits opposite to B. Gender of B and T is same.

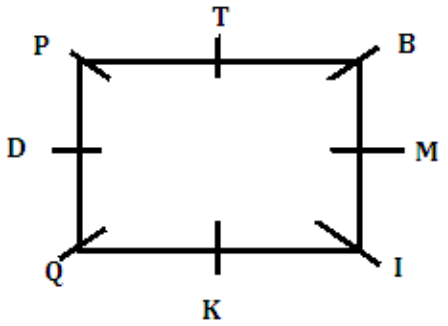
Inference- Here case 2 is ruled out now. So, the final arrangement is-

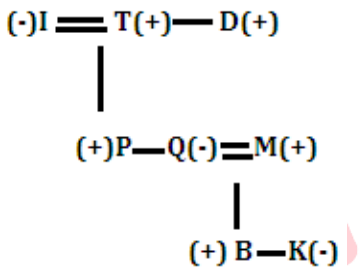




S8. Ans.(e)

Sol. Final arrangement –

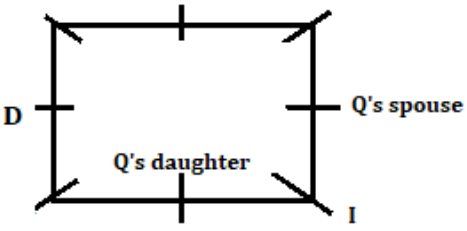




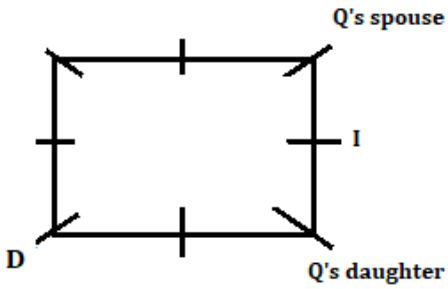
Clues- M is son in law of T. Q's only daughter sits second to the right of D. One person sits between Q's spouse and the one who is Q's daughter. D is unmarried and brother-in-law of I. T's only son sits opposite to I. I sits to the immediate right of Q's daughter.

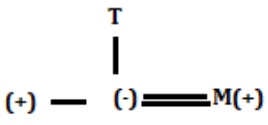
Inference- Here we have 2 possible cases.

Case 1



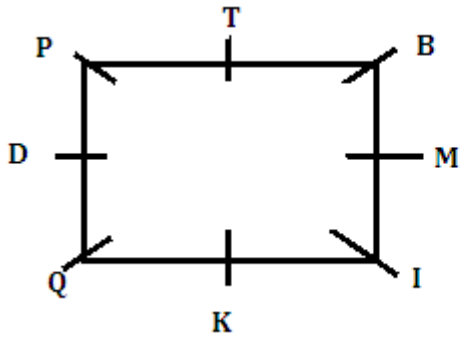
Case 2

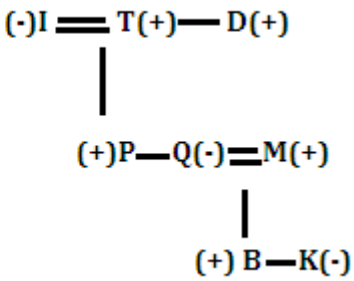




Clues- P sits adjacent to D. P neither sits adjacent to Q's daughter nor sits at the middle of the side. K is child of M who has two children. K sits adjacent to I and is unmarried. T sits immediate right of B. I's daughter sits opposite to B. Gender of B and T is same.

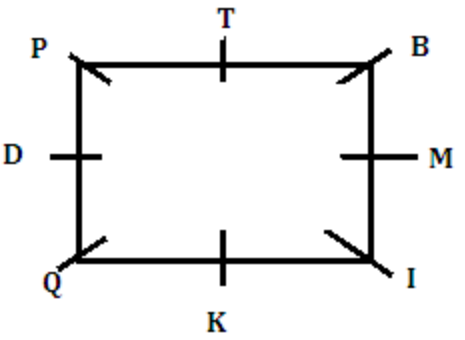
Inference- Here case 2 is ruled out now. So, the final arrangement is-

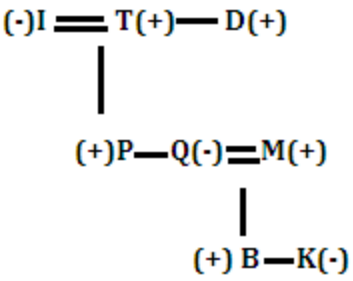




S9. Ans.(a)

Sol. Final arrangement –

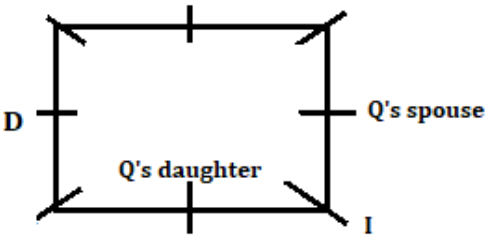




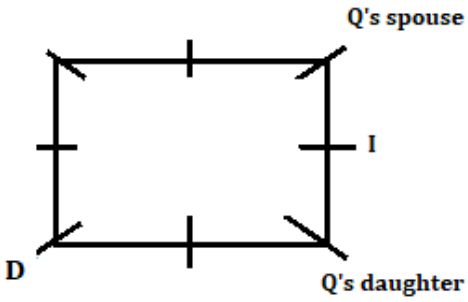
Clues- M is son in law of T. Q's only daughter sits second to the right of D. One person sits between Q's spouse and the one who is Q's daughter. D is unmarried and brother-in-law of I. T's only son sits opposite to I. I sits to the immediate right of Q's daughter.

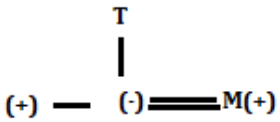
Inference- Here we have 2 possible cases.

Case 1



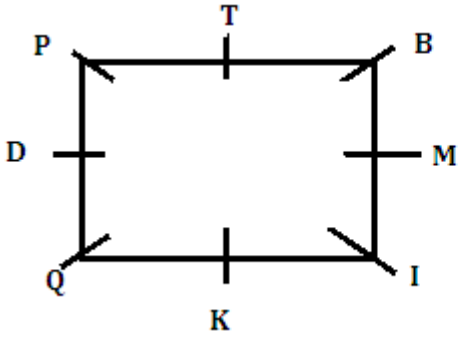
Case 2

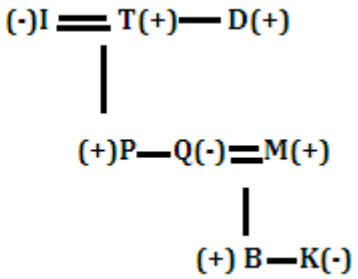




Clues- P sits adjacent to D. P neither sits adjacent to Q's daughter nor sits at the middle of the side. K is child of M who has two children. K sits adjacent to I and is unmarried. T sits immediate right of B. I's daughter sits opposite to B. Gender of B and T is same.

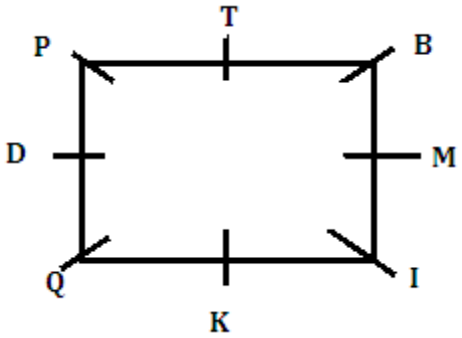
Inference- Here case 2 is ruled out now. So, the final arrangement is-

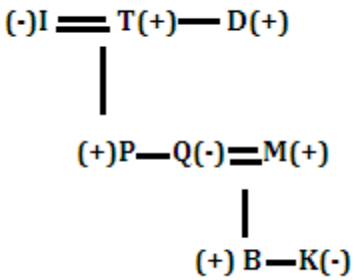




S10. Ans.(b)

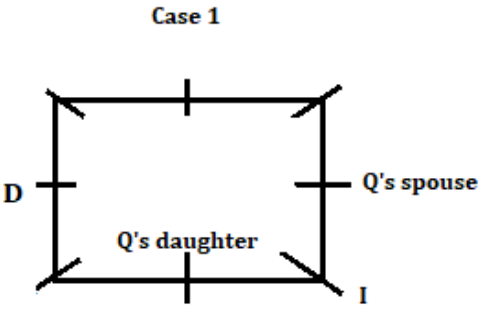
Sol. Final arrangement –

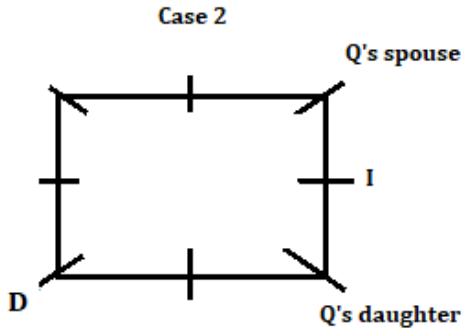


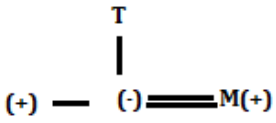


Clues- M is son in law of T. Q's only daughter sits second to the right of D. One person sits between Q's spouse and the one who is Q's daughter. D is unmarried and brother-in-law of I. T's only son sits opposite to I. I sits to the immediate right of Q's daughter.

Inference- Here we have 2 possible cases.

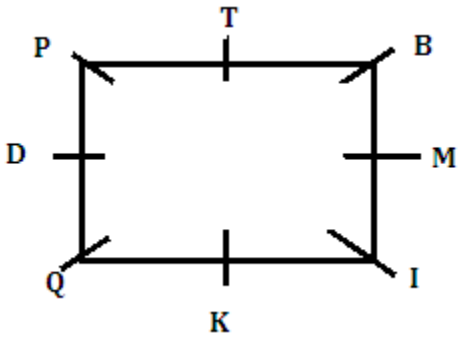


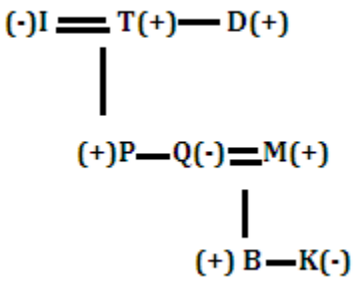




Clues- P sits adjacent to D. P neither sits adjacent to Q's daughter nor sits at the middle of the side. K is child of M who has two children. K sits adjacent to I and is unmarried. T sits immediate right of B. I's daughter sits opposite to B. Gender of B and T is same.

Inference- Here case 2 is ruled out now. So, the final arrangement is-





S11. Ans.(b)

Sol. In the first conclusion, nothing is mentioned about the NATO alliance.

We will consider the second conclusion because, in the statement it is clearly mentioned to improve the relationship between India and Australia.

Thus, only conclusion II follows.

S12. Ans.(b)

Sol. Final arrangement –

Floors	Persons	Ages
8	F	11
7	A	16
6	D	29
5	B	27
4	G	25
3	E	33
2	C	22
1	H	21

Clues- A lives on an odd numbered floor and has a perfect square age. B lives two floors below A. A's age is an even number and less than 36 years. The age difference between A and B is 11 years. G lives on an even number floor below B. H lives on the bottommost floor.

Inference- Here we have 3 possible cases.

Floors	Case 1		Case 2		Case 3	
	Persons	Ages	Persons	Ages	Persons	Ages
8						
7	A	16			A	16
6						
5	B	27	A	16	B	27
4					G	
3			B	27		
2	G		G			
1	H		H		H	

Clues- The number of persons lives below G is one more than the number of persons lives above the one whose age is 29 years. H is 6 years younger than B.
Inference- Here we get fix numbers of ages of A and B.

Floors	Case 1		Case 2		Case 3	
	Persons	Ages	Persons	Ages	Persons	Ages
8		29		29		
7	A	16			A	16
6						29
5	B	27	A	16	B	27
4					G	
3			B	27		
2	G		G			
1	H	21	H	21	H	21

Clues- E lives two floors above the one whose age is 21. The age difference between F and B is 16 years. F lives above D.
Inference- Here is only one possibility that F's age is 11 years. Case 2 is ruled out now because we can't place E.

Floors	Case 1		~~Case 2~~		Case 3	
	Persons	Ages	~~Persons~~	~~Ages~~	Persons	Ages
8		29		~~29~~	F	11
7	A	16			A	16
6	F	11			D/	29
5	B	27	~~A~~	~~16~~	B	27
4	D				G	
3	E		~~B~~	~~27~~	E	
2	G		~~G~~		D/	
1	H	21	~~H~~	~~21~~	H	21

Clues- C's age is an even number.
Inference- Here case 1 is ruled out now because C's age is odd number.

Floors	~~Case 1~~		Case 3	
	~~Persons~~	~~Ages~~	Persons	Ages
8	~~C~~	~~29~~	F	11
7	~~A~~	~~16~~	A	16
6	~~F~~	~~11~~	D	29
5	~~B~~	~~27~~	B	27
4	~~D~~		G	
3	~~E~~		E	
2	~~G~~		C	
1	~~H~~	~~21~~	H	21

Clues- E's age is multiple of 11 and more than D's age. One of the persons age is 22 years which is 3 years less than G's age.

Inference- E's age is 33 years.

Floors	Persons	Ages
8	F	11
7	A	16
6	D	29
5	B	27
4	G	25
3	E	33
2	C	22
1	H	21

33 years is the sum of the ages of F and C

S13. Ans.(e)

Sol. Final arrangement –

Floors	Persons	Ages
8	F	11
7	A	16
6	D	29
5	B	27
4	G	25
3	E	33
2	C	22
1	H	21

Clues- A lives on an odd numbered floor and has a perfect square age. B lives two floors below A. A's age is an even number and less than 36 years. The age difference between A and B is 11 years. G lives on an even number floor below B. H lives on the bottommost floor.

Inference- Here we have 3 possible cases.

Floors	Case 1		Case 2		Case 3	
	Persons	Ages	Persons	Ages	Persons	Ages
8						
7	A	16			A	16
6						
5	B	27	A	16	B	27
4					G	
3			B	27		
2	G		G			
1	H		H		H	

Clues- The number of persons lives below G is one more than the number of persons lives above the one whose age is 29 years. H is 6 years younger than B.

Inference- Here we get fix numbers of ages of A and B.

Floors	Case 1		Case 2		Case 3	
	Persons	Ages	Persons	Ages	Persons	Ages
8		29		29		
7	A	16			A	16
6						29
5	B	27	A	16	B	27
4					G	
3			B	27		
2	G		G			
1	H	21	H	21	H	21

Clues- E lives two floors above the one whose age is 21. The age difference between F and B is 16 years. F lives above D.

Inference- Here is only one possibility that F's age is 11 years. Case 2 is ruled out now because we can't place E.

Floors	Case 1		~~Case 2~~		Case 3	
	Persons	Ages	~~Persons~~	~~Ages~~	Persons	Ages
8		29		~~29~~	F	11
7	A	16			A	16
6	F	11			D/	29
5	B	27	~~A~~	~~16~~	B	27
4	D				G	
3	E		~~B~~	~~27~~	E	
2	G		~~G~~		D/	
1	H	21	~~H~~	~~21~~	H	21

Clues- C's age is an even number.

Inference- Here case 1 is ruled out now because C's age is odd number.

Floors	~~Case 1~~		Case 3	
	~~Persons~~	~~Ages~~	Persons	Ages
8	~~C~~	~~29~~	F	11
7	~~A~~	~~16~~	A	16
6	~~F~~	~~11~~	D	29
5	~~B~~	~~27~~	B	27
4	~~D~~		G	
3	~~E~~		E	
2	~~G~~		C	
1	~~H~~	~~21~~	H	21

Clues- E's age is multiple of 11 and more than D's age. One of the persons age is 22 years which is 3 years less than G's age.

Inference- E's age is 33 years.

Floors	Persons	Ages
8	F	11
7	A	16
6	D	29
5	B	27
4	G	25
3	E	33
2	C	22
1	H	21

Five persons live between the one whose age is 16 years and H

S14. Ans.(c)

Sol. Final arrangement –

Floors	Persons	Ages
8	F	11
7	A	16
6	D	29
5	B	27
4	G	25
3	E	33
2	C	22
1	H	21

Clues- A lives on an odd numbered floor and has a perfect square age. B lives two floors below A. A's age is an even number and less than 36 years. The age difference between A and B is 11 years. G lives on an even number floor below B. H lives on the bottommost floor.

Inference- Here we have 3 possible cases.

Floors	Case 1		Case 2		Case 3	
	Persons	Ages	Persons	Ages	Persons	Ages
8						
7	A	16			A	16
6						
5	B	27	A	16	B	27
4					G	
3			B	27		
2	G		G			
1	H		H		H	

Clues- The number of persons lives below G is one more than the number of persons lives above the one whose age is 29 years. H is 6 years younger than B.

Inference- Here we get fix numbers of ages of A and B.

Floors	Case 1		Case 2		Case 3	
	Persons	Ages	Persons	Ages	Persons	Ages
8		29		29		
7	A	16			A	16
6						29
5	B	27	A	16	B	27
4					G	
3			B	27		
2	G		G			
1	H	21	H	21	H	21

Clues- E lives two floors above the one whose age is 21. The age difference between F and B is 16 years. F lives above D.

Inference- Here is only one possibility that F's age is 11 years. Case 2 is ruled out now because we can't place E.

Floors	Case 1		~~Case 2~~		Case 3	
	Persons	Ages	~~Persons~~	~~Ages~~	Persons	Ages
8		29		~~29~~	F	11
7	A	16			A	16
6	F	11			D/	29
5	B	27	~~A~~	~~16~~	B	27
4	D				G	
3	E		~~B~~	~~27~~	E	
2	G		~~G~~		D/	
1	H	21	~~H~~	~~21~~	H	21

Clues- C's age is an even number.

Inference- Here case 1 is ruled out now because C's age is odd number.

Floors	~~Case 1~~		Case 3	
	~~Persons~~	~~Ages~~	Persons	Ages
8	~~C~~	~~29~~	F	11
7	~~A~~	~~16~~	A	16
6	~~F~~	~~11~~	D	29
5	~~B~~	~~27~~	B	27
4	~~D~~		G	
3	~~E~~		E	
2	~~G~~		C	
1	~~H~~	~~21~~	H	21

Clues- E's age is multiple of 11 and more than D's age. One of the persons age is 22 years which is 3 years less than G's age.

Inference- E's age is 33 years.

Floors	Persons	Ages
8	F	11
7	A	16
6	D	29
5	B	27
4	G	25
3	E	33
2	C	22
1	H	21

Only C lives on an even number floor

S15. Ans.(d)

Sol. Final arrangement –

Floors	Persons	Ages
8	F	11
7	A	16
6	D	29
5	B	27
4	G	25
3	E	33
2	C	22
1	H	21

Clues- A lives on an odd numbered floor and has a perfect square age. B lives two floors below A. A's age is an even number and less than 36 years. The age difference between A and B is 11 years. G lives on an even number floor below B. H lives on the bottommost floor.

Inference- Here we have 3 possible cases.

Floors	Case 1		Case 2		Case 3	
	Persons	Ages	Persons	Ages	Persons	Ages
8						
7	A	16			A	16
6						
5	B	27	A	16	B	27
4					G	
3			B	27		
2	G		G			
1	H		H		H	

Clues- The number of persons lives below G is one more than the number of persons lives above the one whose age is 29 years. H is 6 years younger than B.

Inference- Here we get fix numbers of ages of A and B.

Floors	Case 1		Case 2		Case 3	
	Persons	Ages	Persons	Ages	Persons	Ages
8		29		29		
7	A	16			A	16
6						29
5	B	27	A	16	B	27
4					G	
3			B	27		
2	G		G			
1	H	21	H	21	H	21

Clues- E lives two floors above the one whose age is 21. The age difference between F and B is 16 years. F lives above D.

Inference- Here is only one possibility that F's age is 11 years. Case 2 is ruled out now because we can't place E.

Floors	Case 1		~~Case 2~~		Case 3	
	Persons	Ages	~~Persons~~	~~Ages~~	Persons	Ages
8		29		~~29~~	F	11
7	A	16			A	16
6	F	11			D/	29
5	B	27	~~A~~	~~16~~	B	27
4	D				G	
3	E		~~B~~	~~27~~	E	
2	G		~~G~~		D/	
1	H	21	~~H~~	~~21~~	H	21

Clues- C's age is an even number.

Inference- Here case 1 is ruled out now because C's age is odd number.

Floors	~~Case 1~~		Case 3	
	~~Persons~~	~~Ages~~	Persons	Ages
8	~~C~~	~~29~~	F	11
7	~~A~~	~~16~~	A	16
6	~~F~~	~~11~~	D	29
5	~~B~~	~~27~~	B	27
4	~~D~~		G	
3	~~E~~		E	
2	~~G~~		C	
1	~~H~~	~~21~~	H	21

Clues- E's age is multiple of 11 and more than D's age. One of the persons age is 22 years which is 3 years less than G's age.

Inference- E's age is 33 years.

Floors	Persons	Ages
8	F	11
7	A	16
6	D	29
5	B	27
4	G	25
3	E	33
2	C	22
1	H	21

Sum of A's age and C's age is an even number is true

S16. Ans.(a)

Sol. Final arrangement –

Floors	Persons	Ages
8	F	11
7	A	16
6	D	29
5	B	27
4	G	25
3	E	33
2	C	22
1	H	21

Clues- A lives on an odd numbered floor and has a perfect square age. B lives two floors below A. A's age is an even number and less than 36 years. The age difference between A and B is 11 years. G lives on an even number floor below B. H lives on the bottommost floor.

Inference- Here we have 3 possible cases.

Floors	Case 1		Case 2		Case 3	
	Persons	Ages	Persons	Ages	Persons	Ages
8						
7	A	16			A	16
6						
5	B	27	A	16	B	27
4					G	
3			B	27		
2	G		G			
1	H		H		H	

Clues- The number of persons lives below G is one more than the number of persons lives above the one whose age is 29 years. H is 6 years younger than B.

Inference- Here we get fix numbers of ages of A and B.

Floors	Case 1		Case 2		Case 3	
	Persons	Ages	Persons	Ages	Persons	Ages
8		29		29		
7	A	16			A	16
6						29
5	B	27	A	16	B	27
4					G	
3			B	27		
2	G		G			
1	H	21	H	21	H	21

Clues- E lives two floors above the one whose age is 21. The age difference between F and B is 16 years. F lives above D.

Inference- Here is only one possibility that F's age is 11 years. Case 2 is ruled out now because we can't place E.

Floors	Case 1		~~Case 2~~		Case 3	
	Persons	Ages	~~Persons~~	~~Ages~~	Persons	Ages
8		29		~~29~~	F	11
7	A	16			A	16
6	F	11			D/	29
5	B	27	~~A~~	~~16~~	B	27
4	D				G	
3	E		~~B~~	~~27~~	E	
2	G		~~G~~		D/	
1	H	21	~~H~~	~~21~~	H	21

Clues- C's age is an even number.

Inference- Here case 1 is ruled out now because C's age is odd number.

Floors	~~Case 1~~		Case 3	
	~~Persons~~	~~Ages~~	Persons	Ages
8	~~C~~	~~29~~	F	11
7	~~A~~	~~16~~	A	16
6	~~F~~	~~11~~	D	29
5	~~B~~	~~27~~	B	27
4	~~D~~		G	
3	~~E~~		E	
2	~~G~~		C	
1	~~H~~	~~21~~	H	21

Clues- E's age is multiple of 11 and more than D's age. One of the persons age is 22 years which is 3 years less than G's age.

Inference- E's age is 33 years.

Floors	Persons	Ages
8	F	11
7	A	16
6	D	29
5	B	27
4	G	25
3	E	33
2	C	22
1	H	21

G is 25 years old

S17. Ans.(d)

S18. Ans.(b)

S19. Ans.(b)

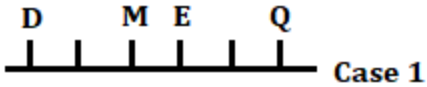
S20. Ans.(c)

S21. Ans.(c)

Sol. Final arrangement –

Clues- Two persons sit between M and Q. The number of persons sit between M and Q is one more than the number of persons sit between D and M. E sits 3rd to the right of D. Not more than two persons sit between M and E.

Inference- Here we have 2 possible cases.

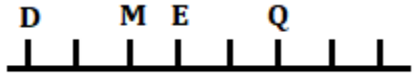


Case 1

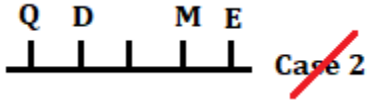
Case 2

Clues- The number of persons sit between D and E is same as the number of persons sit to the right of Q.

Inference- Here case 2 is ruled out now.



Case 1



~~Case 2~~

Clues- Three persons sit between D and N who sits 2nd to the right of A. There are as many persons sit between A and Y is same as the number of persons sit between D and A.

Inference-

Case 1

Clues- U sits 4th from the extreme ends and immediate neighbour of O. One person sits between Y and O. The number of persons sit to the right of Q is equal to the number of persons sit to the left of O.

Inference- So, the final arrangement is-

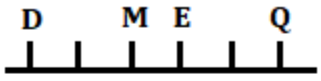
Twenty persons sit in the row

S22. Ans.(a)

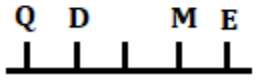
Sol. Final arrangement –

Clues- Two persons sit between M and Q. The number of persons sit between M and Q is one more than the number of persons sit between D and M. E sits 3rd to the right of D. Not more than two persons sit between M and E.

Inference- Here we have 2 possible cases.



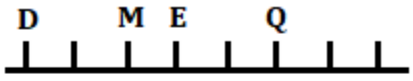
Case 1



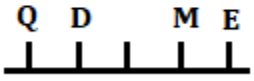
Case 2

Clues- The number of persons sit between D and E is same as the number of persons sit to the right of Q.

Inference- Here case 2 is ruled out now.



Case 1



Case 2

Clues- Three persons sit between D and N who sits 2nd to the right of A. There are as many persons sit between A and Y is same as the number of persons sit between D and A.

Inference-

Case 1

Clues- U sits 4th from the extreme ends and immediate neighbour of O. One person sits between Y and O. The number of persons sit to the right of Q is equal to the number of persons sit to the left of O.

Inference- So, the final arrangement is-

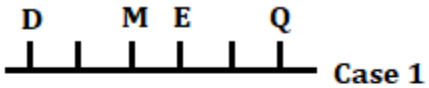
Seven persons sit between Y and the one who sits 5th to the right of U

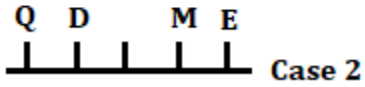
S23. Ans.(c)

Sol. Final arrangement –

Clues- Two persons sit between M and Q. The number of persons sit between M and Q is one more than the number of persons sit between D and M. E sits 3rd to the right of D. Not more than two persons sit between M and E.

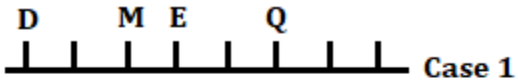
Inference- Here we have 2 possible cases.

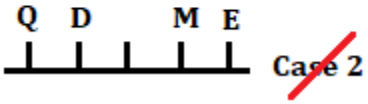




Clues- The number of persons sit between D and E is same as the number of persons sit to the right of Q.

Inference- Here case 2 is ruled out now.





Clues- Three persons sit between D and N who sits 2nd to the right of A. There are as many persons sit between A and Y is same as the number of persons sit between D and A.

Inference-

Clues- U sits 4th from the extreme ends and immediate neighbour of O. One person sits between Y and O. The number of persons sit to the right of Q is equal to the number of persons sit to the left of O.

Inference- So, the final arrangement is-

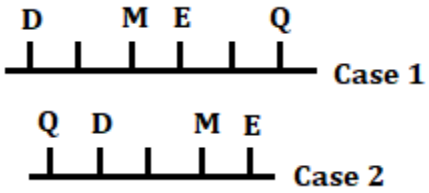
The number of persons sit between M and E is same as the number of persons sit between U and O

S24. Ans.(e)

Sol. Final arrangement –

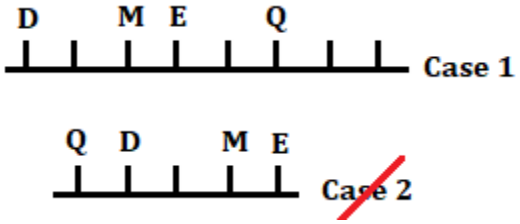
Clues- Two persons sit between M and Q. The number of persons sit between M and Q is one more than the number of persons sit between D and M. E sits 3rd to the right of D. Not more than two persons sit between M and E.

Inference- Here we have 2 possible cases.



Clues- The number of persons sit between D and E is same as the number of persons sit to the right of Q.

Inference- Here case 2 is ruled out now.



Clues- Three persons sit between D and N who sits 2nd to the right of A. There are as many persons sit between A and Y is same as the number of persons sit between D and A.

Inference-

Clues- U sits 4th from the extreme ends and immediate neighbour of O. One person sits between Y and O. The number of persons sit to the right of Q is equal to the number of persons sit to the left of O.

Inference- So, the final arrangement is-

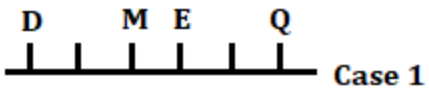
Only Y sits at extreme end

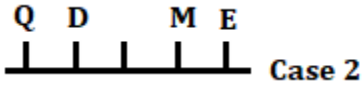
S25. Ans.(b)

Sol. Final arrangement –

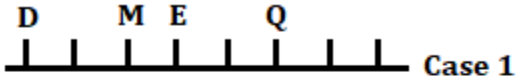
Clues- Two persons sit between M and Q. The number of persons sit between M and Q is one more than the number of persons sit between D and M. E sits 3rd to the right of D. Not more than two persons sit between M and E.

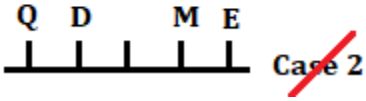
Inference- Here we have 2 possible cases.





Clues- The number of persons sit between D and E is same as the number of persons sit to the right of Q.
Inference- Here case 2 is ruled out now.





Clues- Three persons sit between D and N who sits 2nd to the right of A. There are as many persons sit between A and Y is same as the number of persons sit between D and A.
Inference-

Clues- U sits 4th from the extreme ends and immediate neighbour of O. One person sits between Y and O. The number of persons sit to the right of Q is equal to the number of persons sit to the left of O.
Inference- So, the final arrangement is-

7th to the right

S26. Ans.(b)
Sol. Final arrangement –

Months	Persons
March	K
April	F
May	P
June	I
July	N
August	J
September	Q
October	M

Clues- I attends the conference in the month having an even number of days. Two persons attends the conference between I and Q. N attends the conference two months before Q.
Inference- Here we have 3 possible cases.

Months	Case 1	Case 2	Case 3
	Persons	Persons	Persons
March			
April	I		N
May	N		
June		I	Q
July	Q	N	
August			
September		Q	I
October			

Clues- The number of persons attends the conference between N and Q is same as the number of persons attends the conference between F and I. I attends the conference after F. J attends the conference before M but after P. P attends the conference before N but not the first one to attend the conference.

Inference- Here case 1 and case 3 are ruled out now.

Months	~~Case 1~~	Case 2	~~Case 3~~
	~~Persons~~	Persons	~~Persons~~
March			
April	~~I~~	F	~~N~~
May	~~N~~	P	
June	~~F~~	I	~~Q~~
July	~~Q~~	N	~~F~~
August		J	
September		Q	~~I~~
October		M	

Clues- K is one of the persons who attends the conference.

Inference- So, the final arrangement is-

Months	Persons
March	K
April	F
May	P
June	I
July	N
August	J
September	Q
October	M

S27. Ans.(c)

Sol. Final arrangement –

Months	Persons
March	K
April	F
May	P
June	I
July	N
August	J
September	Q
October	M

Clues- I attends the conference in the month having an even number of days. Two persons attends the conference between I and Q. N attends the conference two months before Q.

Inference- Here we have 3 possible cases.

Months	Case 1	Case 2	Case 3
	Persons	Persons	Persons
March			
April	I		N
May	N		
June		I	Q
July	Q	N	
August			
September		Q	I
October			

Clues- The number of persons attends the conference between N and Q is same as the number of persons attends the conference between F and I. I attends the conference after F. J attends the conference before M but after P. P attends the conference before N but not the first one to attend the conference.

Inference- Here case 1 and case 3 are ruled out now.

Months	~~Case 1~~	Case 2	~~Case 3~~
	~~Persons~~	Persons	~~Persons~~
March			
April	~~I~~	F	~~N~~
May	~~N~~	P	
June	~~F~~	I	~~Q~~
July	~~Q~~	N	~~F~~
August		J	
September		Q	~~I~~
October		M	

Clues- K is one of the persons who attends the conference.

Inference- So, the final arrangement is-

Months	Persons
March	K
April	F
May	P
June	I
July	N
August	J
September	Q
October	M

S28. Ans.(e)

Sol. Final arrangement –

Months	Persons
March	K
April	F
May	P
June	I
July	N
August	J
September	Q
October	M

Clues- I attends the conference in the month having an even number of days. Two persons attends the conference between I and Q. N attends the conference two months before Q.

Inference- Here we have 3 possible cases.

Months	Case 1	Case 2	Case 3
	Persons	Persons	Persons
March			
April	I		N
May	N		
June		I	Q
July	Q	N	
August			
September		Q	I
October			

Clues- The number of persons attends the conference between N and Q is same as the number of persons attends the conference between F and I. I attends the conference after F. J attends the conference before M but after P. P attends the conference before N but not the first one to attend the conference.

Inference- Here case 1 and case 3 are ruled out now.

Months	~~Case 1~~ ~~Persons~~	Case 2 Persons	~~Case 3~~ ~~Persons~~
March			
April	~~I~~	F	~~N~~
May	~~N~~	P	
June	~~F~~	I	~~Q~~
July	~~Q~~	N	~~F~~
August		J	
September		Q	~~I~~
October		M	

Clues- K is one of the persons who attends the conference.
Inference- So, the final arrangement is-

Months	Persons
March	K
April	F
May	P
June	I
July	N
August	J
September	Q
October	M

S29. Ans.(c)
Sol. Option (a) & (b) supports the importance of farm ponds. Only (c) weakens its significance. It is clearly mention farm pond is cost effective and can boost farmers' income.

S30. Ans.(c)
Sol. The problem of lower water level has attracted the attention of the country. Farm pond can help in water control. As it is cost effective and beneficial for rural livelihoods, so it can be a viable investment option. Only option (c) is false in context of the statement.

S31. Ans.(d)
Sol. Final arrangement –

Designation	Person	Vegetables
General Manager (GM)	Q	Carrot
Deputy General Manager (DGM)	D	Broccoli
Manager	F	Asparagus
Assistant General Manager (AGM)	H	Cauliflower
Assistant Manager (AM)	Y	Corn
Section Officer (SO)	R	Cucumber
Sr. Accountant	U	Eggplant
Clerk	M	Green pepper

Clues- R is senior to the one who likes green pepper and junior to Assistant Manager (AM). D is two posts senior to the one who likes Cauliflower. The number of persons junior to R is one less than the number of persons senior to the one who likes cauliflower. Q is senior to D. Even number of persons designated between Q and the one who likes green pepper.

Inference-

Designation	Person	Vegetables
General Manager (GM)	Q	
Deputy General Manager (DGM)	D	
Manager		
Assistant General Manager (AGM)		cauliflower
Assistant Manager (AM)		
Section Officer (SO)	R	
Sr. Accountant		
Clerk		green pepper

Clues- F is not a Sr. accountant. U likes eggplant. H is just senior to the one who likes corn. One post gap between Y and F who likes asparagus. The one who likes carrot is just senior to the one who likes Broccoli. M is one of the persons.

Inference- So, the final arrangement is-

Designation	Person	Vegetables
General Manager (GM)	Q	Carrot
Deputy General Manager (DGM)	D	Broccoli
Manager	F	Asparagus
Assistant General Manager (AGM)	H	Cauliflower
Assistant Manager (AM)	Y	Corn
Section Officer (SO)	R	Cucumber
Sr. Accountant	U	Eggplant
Clerk	M	Green pepper

S32. Ans.(d)

Sol. Final arrangement –

Designation	Person	Vegetables
General Manager (GM)	Q	Carrot
Deputy General Manager (DGM)	D	Broccoli
Manager	F	Asparagus
Assistant General Manager (AGM)	H	Cauliflower
Assistant Manager (AM)	Y	Corn
Section Officer (SO)	R	Cucumber
Sr. Accountant	U	Eggplant
Clerk	M	Green pepper

Clues- R is senior to the one who likes green pepper and junior to Assistant Manager (AM). D is two posts senior to the one who likes Cauliflower. The number of persons junior to R is one less than the number of persons senior to the one who likes cauliflower. Q is senior to D. Even number of persons designated between Q and the one who likes green pepper.

Inference-

Designation	Person	Vegetables
General Manager (GM)	Q	
Deputy General Manager (DGM)	D	
Manager		
Assistant General Manager (AGM)		cauliflower
Assistant Manager (AM)		
Section Officer (SO)	R	
Sr. Accountant		
Clerk		green pepper

Clues- F is not a Sr. accountant. U likes eggplant. H is just senior to the one who likes corn. One post gap between Y and F who likes asparagus. The one who likes carrot is just senior to the one who likes Broccoli. M is one of the persons.

Inference- So, the final arrangement is-

Designation	Person	Vegetables
General Manager (GM)	Q	Carrot
Deputy General Manager (DGM)	D	Broccoli
Manager	F	Asparagus
Assistant General Manager (AGM)	H	Cauliflower
Assistant Manager (AM)	Y	Corn
Section Officer (SO)	R	Cucumber
Sr. Accountant	U	Eggplant
Clerk	M	Green pepper

S33. Ans.(a)

Sol. Final arrangement –

Designation	Person	Vegetables
General Manager (GM)	Q	Carrot
Deputy General Manager (DGM)	D	Broccoli
Manager	F	Asparagus
Assistant General Manager (AGM)	H	Cauliflower
Assistant Manager (AM)	Y	Corn
Section Officer (SO)	R	Cucumber
Sr. Accountant	U	Eggplant
Clerk	M	Green pepper

Clues- R is senior to the one who likes green pepper and junior to Assistant Manager (AM). D is two posts senior to the one who likes Cauliflower. The number of persons junior to R is one less than the number of persons senior to the one who likes cauliflower. Q is senior to D. Even number of persons designated between Q and the one who likes green pepper.

Inference-

Designation	Person	Vegetables
General Manager (GM)	Q	
Deputy General Manager (DGM)	D	
Manager		
Assistant General Manager (AGM)		cauliflower
Assistant Manager (AM)		
Section Officer (SO)	R	
Sr. Accountant		
Clerk		green pepper

Clues- F is not a Sr. accountant. U likes eggplant. H is just senior to the one who likes corn. One post gap between Y and F who likes asparagus. The one who likes carrot is just senior to the one who likes Broccoli. M is one of the persons.

Inference- So, the final arrangement is-

Designation	Person	Vegetables
General Manager (GM)	Q	Carrot
Deputy General Manager (DGM)	D	Broccoli
Manager	F	Asparagus
Assistant General Manager (AGM)	H	Cauliflower
Assistant Manager (AM)	Y	Corn
Section Officer (SO)	R	Cucumber
Sr. Accountant	U	Eggplant
Clerk	M	Green pepper

S34. Ans.(c)

Sol. Final arrangement –

Designation	Person	Vegetables
General Manager (GM)	Q	Carrot
Deputy General Manager (DGM)	D	Broccoli
Manager	F	Asparagus
Assistant General Manager (AGM)	H	Cauliflower
Assistant Manager (AM)	Y	Corn
Section Officer (SO)	R	Cucumber
Sr. Accountant	U	Eggplant
Clerk	M	Green pepper

Clues- R is senior to the one who likes green pepper and junior to Assistant Manager (AM). D is two posts senior to the one who likes Cauliflower. The number of persons junior to R is one less than the number of persons senior to the one who likes cauliflower. Q is senior to D. Even number of persons designated between Q and the one who likes green pepper.

Inference-

Designation	Person	Vegetables
General Manager (GM)	Q	
Deputy General Manager (DGM)	D	
Manager		
Assistant General Manager (AGM)		cauliflower
Assistant Manager (AM)		
Section Officer (SO)	R	
Sr. Accountant		
Clerk		green pepper

Clues- F is not a Sr. accountant. U likes eggplant. H is just senior to the one who likes corn. One post gap between Y and F who likes asparagus. The one who likes carrot is just senior to the one who likes Broccoli. M is one of the persons.

Inference- So, the final arrangement is-

Designation	Person	Vegetables
General Manager (GM)	Q	Carrot
Deputy General Manager (DGM)	D	Broccoli
Manager	F	Asparagus
Assistant General Manager (AGM)	H	Cauliflower
Assistant Manager (AM)	Y	Corn
Section Officer (SO)	R	Cucumber
Sr. Accountant	U	Eggplant
Clerk	M	Green pepper

S35. Ans.(a)

Sol. Final arrangement –

Designation	Person	Vegetables
General Manager (GM)	Q	Carrot
Deputy General Manager (DGM)	D	Broccoli
Manager	F	Asparagus
Assistant General Manager (AGM)	H	Cauliflower
Assistant Manager (AM)	Y	Corn
Section Officer (SO)	R	Cucumber
Sr. Accountant	U	Eggplant
Clerk	M	Green pepper

Clues- R is senior to the one who likes green pepper and junior to Assistant Manager (AM). D is two posts senior to the one who likes Cauliflower. The number of persons junior to R is one less than the number of persons senior to the one who likes cauliflower. Q is senior to D. Even number of persons designated between Q and the one who likes green pepper.

Inference-

Designation	Person	Vegetables
General Manager (GM)	Q	
Deputy General Manager (DGM)	D	
Manager		
Assistant General Manager (AGM)		cauliflower
Assistant Manager (AM)		
Section Officer (SO)	R	
Sr. Accountant		
Clerk		green pepper

Clues- F is not a Sr. accountant. U likes eggplant. H is just senior to the one who likes corn. One post gap between Y and F who likes asparagus. The one who likes carrot is just senior to the one who likes Broccoli. M is one of the persons.

Inference- So, the final arrangement is-

Designation	Person	Vegetables
General Manager (GM)	Q	Carrot
Deputy General Manager (DGM)	D	Broccoli
Manager	F	Asparagus
Assistant General Manager (AGM)	H	Cauliflower
Assistant Manager (AM)	Y	Corn
Section Officer (SO)	R	Cucumber
Sr. Accountant	U	Eggplant
Clerk	M	Green pepper

S36. Ans.(e)

Sol.

Logic:
Step I: First and last digit of the numbers removed.
Step II: Sum of the product of first half number and second half number
Step III: 10 is subtracted from even number and 10 is added to odd number added
Step IV: Numbers written in reverse order
Step V: Add all the digits with in the number till the unit digit and replace the number with it place value in alphabet

Input: 841782	**487156**	**389573**	**724739**	**329454**
Step I: 4178	8715	8957	2473	2945
Step II: 60	61	107	29	38
Step III: 50	71	117	39	28
Step IV: 5	17	711	93	82
Step V: E	H	I	C	A

S37. Ans.(c)

Sol.

Logic:
Step I: First and last digit of the numbers removed.
Step II: Sum of the product of first half number and second half number
Step III: 10 is subtracted from even number and 10 is added to odd number added
Step IV: Numbers written in reverse order
Step V: Add all the digits with in the number till the unit digit and replace the number with it place value in alphabet

Input: 841782	**487156**	**389573**	**724739**	**329454**
Step I: 4178	8715	8957	2473	2945
Step II: 60	61	107	29	38
Step III: 50	71	117	39	28
Step IV: 5	17	711	93	82
Step V: E	H	I	C	A

S38. Ans.(a)

Sol.

Logic:
Step I: First and last digit of the numbers removed.
Step II: Sum of the product of first half number and second half number
Step III: 10 is subtracted from even number and 10 is added to odd number added
Step IV: Numbers written in reverse order
Step V: Add all the digits with in the number till the unit digit and replace the number with it place value in alphabet

Input: 841782	487156	389573	724739	329454
Step I: 4178	8715	8957	2473	2945
Step II: 60	61	107	29	38
Step III: 50	71	117	39	28
Step IV: 5	17	711	93	82
Step V: E	H	I	C	A

S39. Ans.(e)

Sol.

Logic:

Step I: First and last digit of the numbers removed.

Step II: Sum of the product of first half number and second half number

Step III: 10 is subtracted from even number and 10 is added to odd number added

Step IV: Numbers written in reverse order

Step V: Add all the digits with in the number till the unit digit and replace the number with it place value in alphabet

Input: 841782	487156	389573	724739	329454
Step I: 4178	8715	8957	2473	2945
Step II: 60	61	107	29	38
Step III: 50	71	117	39	28
Step IV: 5	17	711	93	82
Step V: E	H	I	C	A

S40. Ans.(b)

Sol. Final arrangement –

Mysore	Patiala	Jaipur	Chandigarh
A (30)	Q (80)	Y (50)	K (20)
W (90)	F (40)	H (100)	L (60)
X (70)	G (10)		

Clues- K lives only with L but not in Patiala and Jaipur. Y lives in Jaipur. Q neither live with Y nor live in Mysore. W and X live in the same city but not live with Q and Y. F live with G and one more person in the same city. H lives in Jaipur. A and W are live in the same city.

Inference- Here we have 3 possible cases.

Case 1			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	Q	Y	W
L	F	H	X
	G		A

Case 2			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	W	Y	Q
L	X	H	F
	A		G

Case 3			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
W	Q	Y	K
X	F	H	L
A	G		

Clues- H likes the number which is a perfect square of even number. F likes the number which is four times of G likes and half of the number which is Q likes.

Inference-

Case 1			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	Q (80)	Y	W
L	F (40)	H (100)	X
	G (10)		A

Case 2			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	W	Y	Q (80)
L	X	H (100)	F (40)
	A		G (10)

Case 3			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
W	Q (80)	Y	K
X	F (40)	H (100)	L
A	G (10)		

Clues- The number which is Q likes is equal to the sum of the numbers like by K and L. The number which is W likes is equal to the sum of the numbers like by Q and G. L likes the number which is thrice of the number likes by K and twice of the number likes by A. Y likes the number which is less than the number likes by X. The one who likes 90 doesn't live in Chandigarh and Patiala.

Inference- Here case 1 and case 2 are ruled out now. So, the final arrangement is-

Mysore	**Patiala**	**Jaipur**	**Chandigarh**
A (30)	Q (80)	Y (50)	K (20)
W (90)	F (40)	H (100)	L (60)
X (70)	G (10)		

S41. Ans.(e)

Sol. Final arrangement –

Mysore	**Patiala**	**Jaipur**	**Chandigarh**
A (30)	Q (80)	Y (50)	K (20)
W (90)	F (40)	H (100)	L (60)
X (70)	G (10)		

Clues- K lives only with L but not in Patiala and Jaipur. Y lives in Jaipur. Q neither live with Y nor live in Mysore. W and X live in the same city but not live with Q and Y. F live with G and one more person in the same city. H lives in Jaipur. A and W are live in the same city.

Inference- Here we have 3 possible cases.

Case 1			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	Q	Y	W
L	F	H	X
	G		A

Case 2			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	W	Y	Q
L	X	H	F
	A		G

Case 3			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
W	Q	Y	K
X	F	H	L
A	G		

Clues- H likes the number which is a perfect square of even number. F likes the number which is four times of G likes and half of the number which is Q likes.

Inference-

Case 1			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	Q (80)	Y	W
L	F (40)	H (100)	X
	G (10)		A

Case 2			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	W	Y	Q (80)
L	X	H (100)	F (40)
	A		G (10)

Case 3			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
W	Q (80)	Y	K
X	F (40)	H (100)	L
A	G (10)		

Clues- The number which is Q likes is equal to the sum of the numbers like by K and L. The number which is W likes is equal to the sum of the numbers like by Q and G. L likes the number which is thrice of the number likes by K and twice of the number likes by A. Y likes the number which is less than the number likes by X. The one who likes 90 doesn't live in Chandigarh and Patiala.

Inference- Here case 1 and case 2 are ruled out now. So, the final arrangement is-

Mysore	Patiala	Jaipur	Chandigarh
A (30)	Q (80)	Y (50)	K (20)
W (90)	F (40)	H (100)	L (60)
X (70)	G (10)		

S42. Ans.(a)

Sol. Final arrangement –

Mysore	Patiala	Jaipur	Chandigarh
A (30)	Q (80)	Y (50)	K (20)
W (90)	F (40)	H (100)	L (60)
X (70)	G (10)		

Clues- K lives only with L but not in Patiala and Jaipur. Y lives in Jaipur. Q neither live with Y nor live in Mysore. W and X live in the same city but not live with Q and Y. F live with G and one more person in the same city. H lives in Jaipur. A and W are live in the same city.

Inference- Here we have 3 possible cases.

Case 1			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	Q	Y	W
L	F	H	X
	G		A

Case 2			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	W	Y	Q
L	X	H	F
	A		G

Case 3			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
W	Q	Y	K
X	F	H	L
A	G		

Clues- H likes the number which is a perfect square of even number. F likes the number which is four times of G likes and half of the number which is Q likes.

Inference-

Case 1			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	Q (80)	Y	W
L	F (40)	H (100)	X
	G (10)		A

Case 2			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	W	Y	Q (80)
L	X	H (100)	F (40)
	A		G (10)

Case 3			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
W	Q (80)	Y	K
X	F (40)	H (100)	L
A	G (10)		

Clues- The number which is Q likes is equal to the sum of the numbers like by K and L. The number which is W likes is equal to the sum of the numbers like by Q and G. L likes the number which is thrice of the number likes by K and twice of the number likes by A. Y likes the number which is less than the number likes by X. The one who likes 90 doesn't live in Chandigarh and Patiala.

Inference- Here case 1 and case 2 are ruled out now. So, the final arrangement is-

Mysore	**Patiala**	**Jaipur**	**Chandigarh**
A (30)	Q (80)	Y (50)	K (20)
W (90)	F (40)	H (100)	L (60)
X (70)	G (10)		

S43. Ans.(c)

Sol. Final arrangement –

Mysore	**Patiala**	**Jaipur**	**Chandigarh**
A (30)	Q (80)	Y (50)	K (20)
W (90)	F (40)	H (100)	L (60)
X (70)	G (10)		

Clues- K lives only with L but not in Patiala and Jaipur. Y lives in Jaipur. Q neither live with Y nor live in Mysore. W and X live in the same city but not live with Q and Y. F live with G and one more person in the same city. H lives in Jaipur. A and W are live in the same city.

Inference- Here we have 3 possible cases.

Case 1			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	Q	Y	W
L	F	H	X
	G		A

Case 2			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	W	Y	Q
L	X	H	F
	A		G

Case 3			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
W	Q	Y	K
X	F	H	L
A	G		

Clues- H likes the number which is a perfect square of even number. F likes the number which is four times of G likes and half of the number which is Q likes.

Inference-

Case 1			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	Q (80)	Y	W
L	F (40)	H (100)	X
	G (10)		A

Case 2			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	W	Y	Q (80)
L	X	H (100)	F (40)
	A		G (10)

Case 3			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
W	Q (80)	Y	K
X	F (40)	H (100)	L
A	G (10)		

Clues- The number which is Q likes is equal to the sum of the numbers like by K and L. The number which is W likes is equal to the sum of the numbers like by Q and G. L likes the number which is thrice of the number likes by K and twice of the number likes by A. Y likes the number which is less than the number likes by X. The one who likes 90 doesn't live in Chandigarh and Patiala.

Inference- Here case 1 and case 2 are ruled out now. So, the final arrangement is-

Mysore	Patiala	Jaipur	Chandigarh
A (30)	Q (80)	Y (50)	K (20)
W (90)	F (40)	H (100)	L (60)
X (70)	G (10)		

S44. Ans.(a)
Sol. Final arrangement –

Mysore	Patiala	Jaipur	Chandigarh
A (30)	Q (80)	Y (50)	K (20)
W (90)	F (40)	H (100)	L (60)
X (70)	G (10)		

Clues- K lives only with L but not in Patiala and Jaipur. Y lives in Jaipur. Q neither live with Y nor live in Mysore. W and X live in the same city but not live with Q and Y. F live with G and one more person in the same city. H lives in Jaipur. A and W are live in the same city.
Inference- Here we have 3 possible cases.

Case 1			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	Q	Y	W
L	F	H	X
	G		A

Case 2			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	W	Y	Q
L	X	H	F
	A		G

Case 3			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
W	Q	Y	K
X	F	H	L
A	G		

Clues- H likes the number which is a perfect square of even number. F likes the number which is four times of G likes and half of the number which is Q likes.
Inference-

Case 1			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	Q (80)	Y	W
L	F (40)	H (100)	X
	G (10)		A

Case 2			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
K	W	Y	Q (80)
L	X	H (100)	F (40)
	A		G (10)

Case 3			
Mysore	**Patiala**	**Jaipur**	**Chandigarh**
W	Q (80)	Y	K
X	F (40)	H (100)	L
A	G (10)		

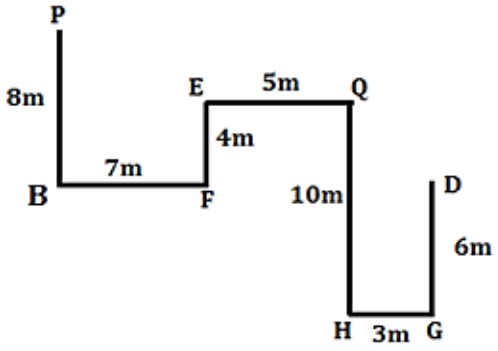
Clues- The number which is Q likes is equal to the sum of the numbers like by K and L. The number which is W likes is equal to the sum of the numbers like by Q and G. L likes the number which is thrice of the number likes by K and twice of the number likes by A. Y likes the number which is less than the number likes by X. The one who likes 90 doesn't live in Chandigarh and Patiala.

Inference- Here case 1 and case 2 are ruled out now. So, the final arrangement is-

Mysore	**Patiala**	**Jaipur**	**Chandigarh**
A (30)	Q (80)	Y (50)	K (20)
W (90)	F (40)	H (100)	L (60)
X (70)	G (10)		

S45. Ans.(c)

Sol.

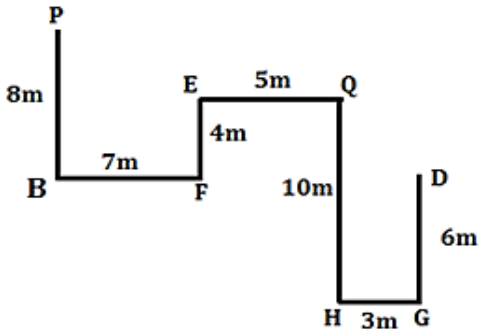


shortest distance between point D and point H= $3\sqrt{5}$m.

DH=$\sqrt{6^2 + 3^2} = \sqrt{36+9} = \sqrt{45} = 3\sqrt{5}$m

S46. Ans.(e)

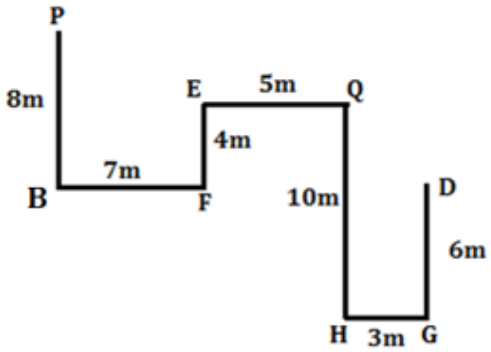
Sol.



In all options, first point is in north-west direction with respect to second point except in option e.

S47. Ans.(b)

Sol.



Point D is in East direction with respect to point B.

S48. Ans.(c)

Sol. Option (a)-False-Reason: It support the motive behind the verdict by High Court. If there will be provision of penalty, there will be fear and awareness to wear masks.

Option (b)-False-Reason: It supports the motive behind verdict.

Option (c)-True-Reason: If police personnel will be allowed driving without mask, they also can be carrier of deadly virus and other people will also be motivated in wrong direction.

Option (d) False-It also supports the motive behind verdict by High Court as wearing mask in public transport which will prevent the spread of the deadly virus.

S49. Ans.(b)

Sol. Option (I)-True-Reason: High court is giving verdict about the people in Delhi, it means they are assuming that all will follow the rules.

Option (II)-True-Reason: High court is giving importance to mask; they are terming it as "Suraksha Kavach". Surely, people will get aware.

Option (III)-False-Reason: Appeal to wear mask has been done, but due to this car will not be less on the road. As there is not any lockdown or curfew.

S50. Ans.(b)

Sol. Option (I) may be the effective course of action, it's not the fallout. Option (II) may be the fallout as management is careless, they are not taking appropriate steps. Option (III) may be the fallout as after a year there is no improvement in case and if PIL will be filed, Supreme court may look into the matter.

S51. Ans.(e)

Sol. To validate the answer, refer to the first paragraph which mentions," The newspaper industry has been in steady decline triggered by a loss in readership and ad revenue which have been migrating to other media, most notably digital."

S52. Ans.(e)
Sol. To validate the answer, refer to the first paragraph which mentions," While the declines have been ongoing for a number of years, the pandemic and ensuing sluggish economy impacted a number of core newspaper advertisers such as retail, movies and promoting community events. These categories cut back on their marketing budgets, accelerating declines in ad revenue"

S53. Ans.(d)
Sol. To validate the answer, refer to the first paragraph which mentions," Using a number of industry sources, Pew Research Center in their annual State of the News report, covered the latest newspaper trends. In 2020, the circulation of weekday newspapers was 22.3 million. In contrast, in 1990, the weekday newspaper circulation was 63.2 million. Since then, circulation has been steadily dropping, reaching an all-time low in 2020."

S54. Ans.(e)
Sol. Refer to the second paragraph which mentions," With the economic slowdown and most retail outlets and community events temporarily shut down, newspaper ad revenue declined sharply in 2020. For the year, ad revenue totaled a record low $8.8 billion, down nearly 30% from $12.45 billion in 2019. In a first, Pew Research notes newspapers in 2020, had generated more revenue from circulation than from advertising."

S55. Ans.(d)
Sol. Refer to the second paragraph which mentions," As newspaper revenue declines so has employment. In 2020 employees in the newspaper industry numbered 30,820 workers, less than half the 74,410 in 2006. Sadly, the employment number has fallen every year since then. In addition, at 55%, larger newspapers were more likely to have layoffs than smaller newspapers."

S56. Ans.(e)
Sol. Only statement (i) is correct with reference to the passage.
For statement (i), refer to the first paragraph which mentions," While the declines have been ongoing for a number of years, the pandemic and ensuing sluggish economy impacted a number of core newspaper advertisers such as retail, movies and promoting community events. These categories cut back on their marketing budgets, accelerating declines in ad revenue"
For statement (ii), refer to the last paragraph which mentions," According to a report from Poynter, with the pandemic, 85 local newsrooms were permanently shut"
For statement (iii), refer to the last paragraph which mentions," As newspaper revenue declines so has employment."

S57. Ans.(c)
Sol. 'Perpetually' is an antonym of 'temporarily'
deftly means in a way that is neatly skilful and quick in movement.
impeccably means in accordance with the highest standards; faultlessly.
perpetually means in a way that never ends or changes; constantly.
effrontery means insolent or impertinent behaviour.

S58. Ans.(d)
Sol. 'Mount' is a synonym of 'climbing'
dwindle means diminish gradually in size, amount, or strength.
rife means of common occurrence; widespread
perusal means the action of reading or examining something.
mount means grow larger or more numerous.

S59. Ans.(a)
Sol. The correct word for the given blank is 'emerged'
emerged means move out of or away from something and become visible.
reiterate means say something again or a number of times, typically for emphasis or clarity.
conducive means making a certain situation or outcome likely or possible.

S60. Ans.(e)
Sol. All the given statements are correct.
For (i), refer to the first paragraph which mentions," Using a number of industry sources, Pew Research Center in their annual State of the News report, covered the latest newspaper trends."
For (ii), refer to the first paragraph which mentions," In 2020, the circulation of weekday newspapers was 22.3 million."
For (iii), refer to the second paragraph which mentions," Digital newspapers share of ad revenue has been steadily **climbing**, in 2011 it had accounted for just 17% of ad dollars."
For (iv), refer to the second paragraph which mentions," For the year, ad revenue totaled a record low $8.8 billion, down nearly 30% from $12.45 billion in 2019."

S61. Ans.(d)
Sol. Refer to the first paragraph which mentions," This World Health Organization (WHO) award is in recognition of the work done by ……..for both rural and urban populations, with special focus on difficult-to-reach habitations."

S62. Ans.(e)
Sol. Refer to the first paragraph which mentions," Over the years, ASHAs have played an outstanding role in making India polio free, increasing routine immunisation coverage; reducing maternal mortality; improving new-born survival and in greater access to treatment for common illnesses."

S63. Ans.(b)
Sol. To validate the answer, refer to the second paragraph which mentions," The core of the ASHA programme has been an intention to build the capacity of community members in taking care of their own health and being partners in health services."

S64. Ans.(d)
Sol. To validate the answer, refer to the second paragraph which mentions," However, within a few years of implementation, the community health volunteer scheme met many hurdles and evaluations which followed, indicating that a key reason for sub-optimal success was a failure of community health volunteers to make a community connect. The lack of political will was another factor behind scaling down, before the community health volunteer programme was forgotten."

S65. Ans.(e)
Sol. Only statement first is correct with reference to the paragraph.
For (i) and (iii), refer to the first paragraph which mentions," The ASHAs were among the six awardees announced at the 75th World Health Assembly in Geneva, Switzerland."
For (ii), refer to the third paragraph which mentions," In 1975, a WHO monograph titled 'Health by the people'"

S66. Ans.(d)
Sol. The error lies in part (D). Here use of 'as well as' is incorrect because 'as well' is an adverb which means 'also', 'too' or 'in addition'. We usually use as well at the end of a clause. For example 'We look forward very much to seeing you again and to meeting your wife as well' while 'as well as' is a multi-word preposition which means 'in addition to' and it's used between two nouns. For example 'She has invited Jill as well as Kate.'

S67. Ans.(c)
Sol. 'Standard' is an antonym od 'extraordinary'
extraordinary means very unusual or remarkable.
bodacious means excellent, admirable, or attractive.
bounty means a sum paid by the state to encourage trade.
standard means used or accepted as normal or average.
reminiscence means a story told about a past event remembered by the narrator.

S68. Ans.(c)
Sol. 'Pliable' is a synonym of 'flexibility'
Flexibility means the ability to be easily modified
vivid means producing powerful feelings or strong, clear images in the mind
nimble means able to think and understand quickly.
pliable means easily bent; flexible.
timid means showing a lack of courage or confidence; easily frightened.

S69. Ans.(a)
Sol. The correct word for the given blank is 'agreed'
(a) agreed means have the same opinion about something; concur.
(b) consent means permission for something to happen or agreement to do something.
(c) relinquish means voluntarily cease to keep or claim; give up.
(d) embellished means make (something) more attractive by the addition of decorative details or features.
(e) augmented means having been made greater in size or value

S70. Ans.(c)
Sol. The correct word for the given blank is 'backbone'
(a) intensity means the quality of being intense.
(b) sophistication means the quality of being sophisticated.
(c) backbone means the chief support of a system or organization.
(d) alleviation means the action or process of making suffering, deficiency, or a problem less severe.
(e) cognizant means having knowledge or awareness.

S71. Ans.(e)
Sol. The correct word for the given blank is 'faith'
(a) pervasive means spreading widely throughout an area or a group of people.
(b) thought means an idea or opinion produced by thinking, or occurring suddenly in the mind.
(c) enormous means very large in size, quantity, or extent.
(d) lament means a passionate expression of grief or sorrow.
(e) faith means complete trust or confidence in someone or something

S72. Ans.(b)
Sol. The correct word for the given blank is 'embodied'
(a) rigid means unable to bend or be forced out of shape; not flexible.
(b) embodied means be an expression of or give a tangible or visible form to (an idea, quality, or feeling).
(c) prodigious means remarkably or impressively great in extent, size, or degree.
(d) lethargy means a lack of energy and enthusiasm.
(e) fiasco means a complete failure, especially a ludicrous or humiliating one.

S73. Ans.(d)
Sol. The correct word for the given blank is 'thriving'
(a) clamoring means shout loudly and insistently.
(b) renegading means become a person who deserts and betrays an organization, country, or set of principles.
(c) unravelling means undo
(d) thriving means prosperous and growing; flourishing.
(e) inferencing means the act or process of reaching a conclusion about something from known facts

S74. Ans.(c)
Sol. The correct word for the given blank is 'witnessed'
(a) ominous means giving the worrying impression that something bad is going to happen; threateningly inauspicious.
(b) insinuated means suggest or hint (something bad) in an indirect and unpleasant way.
(c) witnessed means see (an event, typically a crime or accident) happen.
(d) breather means a brief pause for rest.
(e) dormant means having normal physical functions suspended or slowed down for a period of time; in or as if in a deep sleep.

S75. Ans.(a)
Sol. The correct word for the given blank is 'broadly'
(a) broadly means in general and without considering minor details.
(b) unintentionally means not on purpose.
(c) proportionally means in a way that corresponds in size or amount to something else
(d) amply means enough or more than enough; plentifully.
(e) anxiously means in a manner resulting from or revealing anxiety.

S76. Ans.(c)
Sol. The correct word for the given blank is 'circumstances'
(a) permeates means spread throughout (something); pervade.
(b) natives means a local inhabitant.
(c) circumstances means a fact or condition connected with or relevant to an event or action.
(d) ramifications means a complex or unwelcome consequence of an action or event.
(e) exceptions means a person or thing that is excluded from a general statement or does not follow a rule.

S77. Ans.(d)
Sol. (A)-(C) should be interchanged in order to make sentence meaningful. Therefore the sentence will be," Educational loans, even with government collateral guarantee, are no answer, as the mounting debt of educational loans will cripple the economy of development and public welfare"

S78. Ans.(a)
Sol. (B)-(D) should be interchanged in order to make sentence meaningful. Therefore the sentence will be," Every Judge of the Supreme Court shall be appointed by the President by warrant under his hand and seal after consultation with such of the Judges of the Supreme Court"

S79. Ans.(c)
Sol. (B)-(C) and (A)- (D) should be interchanged in order to make sentence meaningful. Therefore the sentence will be," Ladakh is one of the highest regions of the world and its natural features consist mainly of high plains and deep valley.

S80. Ans.(a)
Sol. (B)-(D) should be interchanged in order to make sentence meaningful. Therefore the sentence will be," Though this warming trend has been going on for a long time, its pace has significantly increased in the last hundred years due to the burning of fossil fuels"

S81. Ans.(c)
Sol. (A)-(B) and (D)- (C) should be interchanged in order to make sentence meaningful. Therefore the sentence will be," Junk Food is very harmful that is slowly eating away the health of the present generation."

S82. Ans.(b)
Sol. The correct combinations to form contextually and grammatically correct sentences are 'A2E' and 'B1F'. Therefore, the correct sentences will be "The distinction between an asset and currency may not be so much legal as it is about the inherent characteristic of what is considered an asset or currency" and "Because blue is favored by so many people, it is often viewed as a non-threatening color that can seem conservative and traditional"

S83. Ans.(d)
Sol. The correct combination to form contextually and grammatically correct sentence is 'C2F'. Therefore, the correct sentence will be "An investigation has been opened into the blaze on Sunday in the parliament complex's oldest wing"

S84. Ans.(a)
Sol. The correct combinations to form contextually and grammatically correct sentence are 'C3D' and 'A2F'. Therefore, the correct sentences will be "There is no doubt that tobacco use is not only highly detrimental to public health but also puts economic burden" and "Although people believe that social networking sites are harmful in many ways, they are also very beneficial."

S85. Ans.(c)
Sol. The correct combination to form contextually and grammatically correct sentence is 'B2E'. Therefore, the correct sentence will be "Novak Djokovic was denied entry into Australia after his visa was cancelled following a 10-hour stand-off with the Australian Border Force at Melbourne airport"

S86. Ans.(e)
Sol. Only statement (i) is error-free. In statement (ii), 'importance' (noun) should be replaced with 'important' (adjective) to modify noun 'framework'. In statement (iii), 'contains' will be 'contain' because 'can' is a modal verb and followed by V1.

S87. Ans.(b)
Sol. Only statement (ii) is error-free. In statement (i), use 'the' before 'largest' because when we use a superlative adjective ('the tallest student') before the noun, use it with 'the'. In statement (iii), 'have' should be 'has' because it has been used here for 'water level' which is singular.

S88. Ans.(d)
Sol. Both sentences (i) and (iii) are error-free. In sentence (ii), 'effects' (noun) should be affects (verb).

S89. Ans.(c)
Sol. None of the given sentences is error-free. In statement (i), 'raise' should be 'raises' for singular noun. In sentence (ii), 'organize' should be 'organized' as the given sentence is in passive voice and its correct structure is 'is: am / is / are + past participle (3rd form of the verb)'. In sentence (iii), 'emits' should be 'emit' for noun 'cell phones' which is plural.

S90. Ans.(b)
Sol. Only statement (ii) is error-free. In statement (i), 'instinctive' (adjective) should be 'instinctively' (adverb) to modify noun 'know'. In sentence (iii), 'is' should be 'are' for 'people'.

S91. Ans.(b)
Sol. To find the 2's complement of a binary number, follow these steps:
1. Invert all the bits of the binary number (flip 0 to 1 and 1 to 0).
o The given binary number is 0101.
o After inverting, it becomes 1010.
2. Add 1 to the inverted binary number.
o 1010 + 1 = 1011. Therefore, the 2's complement of 0101 is **1011.**
Important Key Points
1. The 2's complement is commonly used to represent negative numbers in binary.
2. To calculate the 2's complement:
o First, invert all bits (1 becomes 0, and 0 becomes 1).
o Then add 1 to the inverted number.
3. The 2's complement method simplifies binary arithmetic, especially when working with signed numbers.
Knowledge Booster
In binary systems, 2's complement is widely used to represent signed integers.
The leftmost bit in the 2's complement representation indicates the sign of the number (0 for positive, 1 for negative).
This method allows for easy subtraction using addition, eliminating the need for separate subtraction circuits in digital computers.

S92. Ans.(b)
Sol. The Ctrl + V shortcut key is used **to paste the item that was previously copied or cut to the clipboard.** It is a standard keyboard shortcut for pasting in most operating systems and software applications.
Important Key Points
1. Ctrl + C is used to copy selected items (text, files, etc.).
2. Ctrl + X is used to cut the selected items.
3. Ctrl + V is used to paste the copied or cut items from the clipboard.
4. Keyboard shortcuts help improve efficiency in handling text and file management.
5. Many software applications, including word processors, spreadsheets, and file explorers, support the Ctrl + V shortcut.
Knowledge Booster
Clipboard: The clipboard is a temporary storage area for items that have been cut or copied. The data remains on the clipboard until new data is copied or the system is restarted.
Efficiency: Using keyboard shortcuts like Ctrl + C, Ctrl + X, and Ctrl + V can significantly speed up the process of copying, cutting, and pasting data.
Multitasking: These shortcuts are commonly used in various applications, from word processors to graphic design software, making tasks more streamlined.

S93. Ans.(b)
Sol. In MS PowerPoint, the footer option is located under the **Insert** tab. From this tab, you can add headers, footers, dates, and slide numbers to your slides by selecting the "Header & Footer" option.
Important Key Points
1. The **Insert** tab allows you to add various elements to your slides, including text boxes, images, tables, and footers.
2. The **Header & Footer** option lets you insert footers, dates, and slide numbers on all or selected slides.
3. You can customize the content of the footer, such as adding text or a slide number.
Knowledge Booster
Footers in PowerPoint allow you to display additional information, such as dates, slide numbers, or author names, at the bottom of every slide.
Headers & Footers can be customized for individual slides or applied to the entire presentation.
Adding footers can help improve the professionalism of your presentations by including details like slide numbers and dates, which can help guide your audience.

S94. Ans.(c)
Sol. The **.xls** extension is used for files created by **Microsoft Excel**, typically representing **Excel spreadsheets**. It was the default file format for Excel workbooks prior to Excel 2007, after which the newer **.xlsx** format was introduced.
Important Key Points
1. **.xls** is a file extension used by Microsoft Excel for storing spreadsheet data.
2. Files with this extension may contain data in rows and columns, including formulas, charts, and formatting.
3. The newer version of Excel saves files with the **.xlsx** extension, which offers improved features like better data compression and compatibility.
4. **Excel files** are commonly used for managing data, performing calculations, and creating charts and graphs.
Knowledge Booster
Excel is widely used in business, finance, and data analysis for creating and managing spreadsheets.
The **.xls** format supports features such as multiple worksheets, complex formulas, and formatting options like cell colors and borders.
With the introduction of **.xlsx** in Excel 2007, the newer format is more secure and capable of handling larger data sizes more efficiently, but **.xls** remains compatible with older versions of Excel.

S95. Ans.(b)
Sol. The **.wav** extension is associated with **audio files**. It stands for **Waveform Audio File Format** and is commonly used for storing uncompressed audio data, providing high-quality sound. The format was developed by Microsoft and IBM.
Important Key Points
1. **.wav** files store audio data in a raw, uncompressed format, resulting in large file sizes but high sound quality.
2. This format is often used in professional audio editing and recording due to its lossless nature.
3. Other common audio file formats include **.mp3**, which uses compression to reduce file size at the cost of some audio quality.

Knowledge Booster

WAV files are lossless, meaning they preserve all the audio data, making them ideal for sound engineers and audio editors who require the highest quality.

Unlike **.mp3** or other compressed formats, **.wav** files do not lose data during the compression process, but they require more storage space.

.wav files are supported on most media players and are often used for short sound effects or loops in multimedia applications.

S96. Ans.(a)

Sol. Cache is a type of **volatile memory**, which means it loses its stored data when the power is turned off. Cache memory is used to store frequently accessed data and instructions for quick access by the CPU, making it much faster than main memory.

Important Key Points

1. **Cache memory** is volatile and provides faster access to data compared to RAM.
2. It stores copies of data from frequently used main memory locations, reducing CPU access time.
3. Cache is classified into levels: L1, L2, and L3, each differing in speed and size.

Knowledge Booster

Volatile memory refers to memory that requires power to maintain the stored information. Once power is lost, the data is erased.

Cache memory is located close to or within the CPU to ensure quick access to critical data and instructions.

Non-volatile memory types, such as hard drives and SSDs, retain data even when power is off, unlike cache memory.

S97. Ans.(c)

Sol. The **Themes** option is located under the **Design** tab in MS PowerPoint. Themes allow you to apply a consistent look and feel to your slides, including background designs, font styles, and colors.

Important Key Points

1. The **Design** tab allows users to apply themes, customize slide sizes, and set background styles.
2. Themes in PowerPoint help in maintaining uniformity in design across all slides in a presentation.
3. You can customize themes by changing the colors, fonts, and effects to suit the presentation's purpose.

Knowledge Booster

Themes in PowerPoint ensure that your presentation has a professional appearance by applying pre-designed layouts and color schemes.

You can switch themes anytime during the creation of the presentation, and it will automatically update the entire slide deck.

Customizing themes allows you to adapt the default themes to align with corporate branding or personal preferences.

S98. Ans.(c)

Sol. A **Trojan Horse** does not self-replicate. Unlike viruses and worms, a Trojan Horse relies on users to execute it by disguising itself as legitimate software. Once activated, it can cause harm to the system but does not spread itself to other files or systems automatically.

Important Key Points

1. **Viruses** and **worms** can replicate themselves and spread to other systems or files without user intervention.
2. A **Trojan Horse** requires human action to activate, typically by being downloaded or executed.
3. **Bacteria** is a biological organism that can self-replicate, but this is outside the realm of computer systems.
4. **Spyware** is designed to secretly monitor and collect data from users but generally does not replicate itself.

Knowledge Booster

Viruses attach themselves to files or programs and spread when the infected file is opened or executed.
Worms are similar to viruses but can spread across networks without the need for a host file.
Trojan Horses are often used to create backdoors into systems, allowing unauthorized access, but they do not spread independently.
Spyware is primarily used to collect personal or sensitive information from a user's device and is not designed to replicate or spread.

S99. Ans.(c)

Sol. A **Monitor** is an output device. It displays visual information generated by the computer, allowing users to see and interact with the processed data. Output devices are used to convey information from the computer to the user.

Important Key Points

1. Output devices are used to send processed data from the computer to the user, either in visual, auditory, or printed form.
2. Examples of output devices include **monitors**, **printers**, and **speakers**.
3. Input devices, like keyboards and mice, are used to provide data and control signals to the computer.

Knowledge Booster

Monitor: Displays visual output, such as text, images, and videos.
Printer: An output device that produces hard copies of digital documents or images.
Speakers: Output devices that convert digital audio signals into audible sound.
Input Devices: Devices like keyboards, mice, and microphones allow users to input data and commands into the computer system.

S100. Ans.(a)

Sol. The **Ctrl +]** keyboard shortcut is used to **increase the font size** of the selected text in applications like Microsoft Word. Each press increases the font size by one point.

Important Key Points

1. **Ctrl +]** increases the font size, while **Ctrl + [** decreases the font size in applications like Microsoft Word and PowerPoint.
2. These shortcuts provide a quick way to adjust the size of text without needing to use the mouse or navigate through menus.
3. Changing the font size can improve readability and emphasize specific parts of a document.

Knowledge Booster
Keyboard shortcuts like **Ctrl +]** and **Ctrl + [** can save time and increase productivity when formatting documents.
Font size adjustments are useful in presentations, reports, and documents to emphasize headings or make the content more legible.
Understanding and using various keyboard shortcuts allows users to work more efficiently across different applications.

S101. Ans.(b)
Sol. Spam refers to unsolicited, irrelevant, or inappropriate messages sent over the internet, typically in bulk, especially through email. It is often sent to advertise products, services, or scams and can be an annoyance to users.
Important Key Points
1. **Spam** is unsolicited bulk messages, most commonly sent via email, but it can also be found in social media, forums, and instant messaging.
2. Spam can sometimes contain links to phishing websites or malware, posing a security threat.
3. Email providers use spam filters to automatically detect and block spam messages from reaching users' inboxes.
Knowledge Booster
Phishing is a technique used to deceive users into revealing sensitive information, often disguised as a legitimate email or message.
Adware refers to software that automatically displays or downloads advertisements, often bundled with free programs.
Malware is a broad term used to describe malicious software like viruses, worms, and trojans.
Spam not only clutters inboxes but can also expose users to potential security risks if they click on malicious links or attachments.

S102. Ans.(c)
Sol. Google Chrome is not an operating system; it is a web browser developed by Google. The operating system developed by Google is called **Chrome OS**, not Chrome. The other options—**Windows**, **Linux**, **macOS**, and **Android**—are all operating systems.
Important Key Points
1. **Windows**, **Linux**, **macOS**, and **Android** are operating systems that manage hardware and software resources on different devices.
2. **Chrome** is a web browser, while **Chrome OS** is an operating system designed primarily for Chromebooks.
3. Operating systems are responsible for managing files, executing applications, and controlling hardware resources.
Knowledge Booster
Windows is the most widely used operating system for personal computers.
Linux is an open-source operating system often used in servers and desktops.
macOS is the operating system used in Apple's Macintosh computers.
Android is a mobile operating system primarily used in smartphones and tablets.

S103. Ans.(d)
Sol. The **Animations** tab in MS PowerPoint is used to add animation effects to slides. This tab allows you to apply various entrance, exit, and emphasis animations to text and objects, as well as motion paths.
Important Key Points
1. The **Animations** tab provides tools for applying and customizing animations to objects, such as text, images, or charts.
2. You can control the sequence and timing of animations to create dynamic presentations.
3. There are different types of animations, including **entrance**, **exit**, **emphasis**, and **motion paths**.
Knowledge Booster
Animations can make presentations more engaging by controlling how elements appear, move, or disappear on the slide.
In addition to applying animations, you can use the **Animation Pane** to fine-tune the order and timing of animations.
Transitions, found in the **Transitions** tab, differ from animations and apply visual effects when moving from one slide to another.

S104. Ans.(c)
Sol. Photoshop is not a product of MS Office. It is a product of **Adobe Systems** and is used primarily for image editing and graphic design. The other options—**Microsoft Word**, **Microsoft Excel**, **Microsoft PowerPoint**, and **Microsoft Outlook**—are all part of the **Microsoft Office** suite.
Important Key Points
1. **Microsoft Office** is a suite of productivity software that includes Word, Excel, PowerPoint, Outlook, and other applications.
2. **Photoshop** is a standalone image editing software developed by Adobe, not included in the Microsoft Office suite.
3. MS Office products are used for tasks like document creation, spreadsheet management, presentations, and email communication.
Knowledge Booster
Microsoft Word is used for word processing and creating documents.
Microsoft Excel is used for creating and managing spreadsheets and performing data analysis.
Microsoft PowerPoint is used for creating presentations with slides.
Microsoft Outlook is used for email and calendar management.
Adobe Photoshop is a powerful tool for graphic design, image editing, and photo manipulation.

S105. Ans.(d)
Sol. Norton is an antivirus software that helps protect computers and devices from viruses, malware, and other security threats. It scans, detects, and removes harmful software to keep systems safe.
Important Key Points
1. **Antivirus software** is designed to detect, prevent, and remove malicious software (malware) from computers and networks.
2. Examples of popular antivirus software include **Norton**, **McAfee**, **Avast**, and **Kaspersky**.
3. Antivirus programs provide real-time protection and regular system scans to keep devices secure.

Knowledge Booster
Antivirus software not only detects and removes viruses but also provides protection against malware, spyware, and ransomware.
Regular updates are essential for antivirus software to stay effective against new and emerging threats.
Some antivirus programs offer additional features like firewall protection, web browsing security, and parental controls.

S106. Ans.(a)
Sol. Pressing the **Esc** (Escape) key on the keyboard stops the slide show in Microsoft PowerPoint and returns the user to the normal view or editing mode.
Important Key Points
1. The **Esc** key is commonly used to stop or exit full-screen modes, such as slide shows or presentations.
2. **Shift + F5** starts the slide show from the current slide, while **F5** starts it from the beginning.
3. Other keyboard shortcuts, like **Alt + Tab**, are used to switch between open applications but do not stop the slide show.
Knowledge Booster
The **Esc** key is a versatile key used to cancel or stop various operations in software applications.
PowerPoint offers several keyboard shortcuts for navigating and controlling presentations, such as **F5** (start slide show) and **Shift + F5** (start from the current slide).
Stopping the slide show using the **Esc** key is one of the fastest ways to exit presentation mode.

S107. Ans.(c)
Sol. macOS is the operating system used by Apple desktops and laptops. It is a Unix-based operating system developed by Apple Inc. specifically for its Macintosh line of computers.
Important Key Points
1. **macOS** is the operating system for Apple's desktop and laptop computers, such as the iMac, MacBook, and Mac Mini.
2. **Windows** is primarily used for PCs, while **Linux** is an open-source OS used across various platforms.
3. **iOS** is the operating system used for Apple's mobile devices, like the iPhone and iPad, whereas **Android** is used by many non-Apple smartphones and tablets.
Knowledge Booster
macOS provides a user-friendly graphical interface with features like the Dock, Finder, and Spotlight.
Windows is the most widely used operating system for personal computers globally.
Linux is known for its flexibility and is widely used in servers and specialized systems.
iOS and **Android** are mobile operating systems, each dominating different segments of the smartphone market.

S108. Ans.(a)
Sol. An external port, such as a **USB port** or **parallel port**, connects the motherboard to external devices like a **printer**. These ports provide an interface for external peripherals to communicate with the computer.

Important Key Points

1. External ports like **USB**, **parallel**, and **Ethernet** ports connect peripherals such as printers, external drives, and networking equipment to the computer.
2. Internal components like the **processor**, **RAM**, and **hard disk** are connected directly to the motherboard via internal slots and ports.
3. Printers are usually connected through **USB** ports in modern computers, although some may use wireless connections or older parallel ports.

Knowledge Booster

External ports allow communication between the computer and peripherals, providing a flexible interface for connecting multiple devices.
Common external ports include **USB**, **Ethernet**, **HDMI**, and **VGA** for connecting a wide range of devices.
Older printers used **parallel ports**, but most modern printers connect via **USB** or wirelessly over a network.

S109. Ans.(b)

Sol. PROM (Programmable Read-Only Memory) can be **programmed only once**. After the initial programming, the data written to PROM is permanent and cannot be modified or erased. It is a type of non-volatile memory, meaning it retains its data even when the power is turned off.

Important Key Points

1. **PROM** is non-volatile memory, meaning the data remains intact even when power is lost.
2. Once a **PROM** chip has been programmed, the data cannot be changed or erased.
3. **EPROM** (Erasable Programmable Read-Only Memory) and **EEPROM** (Electrically Erasable Programmable Read-Only Memory) are other types of ROM that can be erased and reprogrammed.

Knowledge Booster

PROM is used in applications where the data needs to be permanently stored after being programmed, such as in firmware.
EPROM and **EEPROM** can be erased and reprogrammed, unlike PROM.
PROM is programmed using a special device known as a **PROM programmer**.

S110. Ans.(c)

Sol. Drafts are used in email to save **unfinished or unsent emails**. If an email is not ready to be sent or needs further editing, it can be saved as a draft and revisited later for completion and sending.

Important Key Points

1. The **Drafts** folder stores emails that are partially written or not yet ready to be sent.
2. Drafts can be edited, completed, and sent later when the user is ready.
3. Saving an email as a draft ensures that work on the email isn't lost if the user needs to close the email client or take a break.

Knowledge Booster

Drafts are particularly useful for lengthy emails or emails that require input or attachments that may not be immediately available.
Most email services automatically save drafts periodically to ensure no content is lost in case of interruptions (such as loss of power or closing the email application).
Once a draft email is completed and sent, it moves from the **Drafts** folder to the **Sent** folder.

S111. Ans.(c)
Sol.
Let bottles manufactured by B in 2022 be 3x
Bottles manufactured by A in 2023 = $3x \times \frac{4}{3} = 4x$
Bottles manufactured by A in 2022 = 4x+25
The bottles manufactured by C in 2023 = $\frac{4}{5} \times (4x + 25)$
$(4x + 25) + 3x + 26 = 52 \times 3$
$7x + 51 = 156$
$7x = 105$
$x = 15$

Companies	Bottles manufactured in 2022	Bottles manufactured in 2023
A	85	60
B	45	
C	26	68

Bottles manufactured by B in 2023 = $\frac{5}{4} \times 60 = 75$
Required ratio = $45 : 75 = 3:5$

S112. Ans.(c)
Sol.
Let bottles manufactured by B in 2022 be 3x
Bottles manufactured by A in 2023 = $3x \times \frac{4}{3} = 4x$
Bottles manufactured by A in 2022 = 4x+25
The bottles manufactured by C in 2023 = $\frac{4}{5} \times (4x + 25)$
$(4x + 25) + 3x + 26 = 52 \times 3$
$7x + 51 = 156$
$7x = 105$
$x = 15$

Companies	Bottles manufactured in 2022	Bottles manufactured in 2023
A	85	60
B	45	
C	26	68

Required percentage = $\frac{26}{60} \times 100 = 43.33 \approx 43\%$

S113. Ans.(e)
Sol.
Let bottles manufactured by B in 2022 be 3x
Bottles manufactured by A in 2023 = $3x \times \frac{4}{3} = 4x$

Bottles manufactured by A in 2022 = 4x+25

The bottles manufactured by C in 2023 = $\frac{4}{5} \times (4x + 25)$

$(4x + 25) + 3x + 26 = 52 \times 3$

$7x + 51 = 156$

$7x = 105$

$x = 15$

Companies	Bottles manufactured in 2022	Bottles manufactured in 2023
A	85	60
B	45	
C	26	68

Bottles manufactured A in 2022 and 2023 = 85+60=145

We no data about bottles manufactured by B in 2023

So, can't be determined

S114. Ans.(d)

Sol.

Let bottles manufactured by B in 2022 be 3x

Bottles manufactured by A in 2023 = $3x \times \frac{4}{3} = 4x$

Bottles manufactured by A in 2022 = 4x+25

The bottles manufactured by C in 2023 = $\frac{4}{5} \times (4x + 25)$

$(4x + 25) + 3x + 26 = 52 \times 3$

$7x + 51 = 156$

$7x = 105$

$x = 15$

Companies	Bottles manufactured in 2022	Bottles manufactured in 2023
A	85	60
B	45	
C	26	68

Bottles manufactured by B in 2021 = $\frac{68}{4} \times 3 = 51$

Required sum = $51 + 45 = 96$

S115. Ans.(b)

Sol.

Let bottles manufactured by B in 2022 be 3x

Bottles manufactured by A in 2023 = $3x \times \frac{4}{3} = 4x$

Bottles manufactured by A in 2022 = 4x+25

The bottles manufactured by C in 2023 = $\frac{4}{5} \times (4x + 25)$

$(4x + 25) + 3x + 26 = 52 \times 3$
$7x + 51 = 156$
$7x = 105$
$x = 15$

Companies	Bottles manufactured in 2022	Bottles manufactured in 2023
A	85	60
B	45	
C	26	68

Required revenue $= \frac{1}{2} \times 26 \times 8 = Rs.104$

S116. Ans.(e)
Sol. The pattern of the series:
4 × 1 = 4
4 × 2 = 8
8 × 3 = 24
24 × 4 = 96
96 × 5 = 480

S117. Ans.(c)
Sol. The pattern of the series:
13 × 2 + 1 = 27
13 × 3 + 1 = 40
13 × 4 + 1 = 53
13 × 5 + 1 = 66
13 × 6 + 1 = 79
13 × 7 + 1 = **92**

S118. Ans.(e)
Sol. The pattern of the series:
$101 + 1^3 = 102$
$102 + 2^3 = 110$
$110 + 3^3 = 137$
$137 + 4^3 = 201$
$201 + 5^3 =$ **326**

S119. Ans.(b)
Sol. The pattern of the series:
1110 + (12 × 1) = 1122
1122 + (12 × 2) = 1146
1146 + (12 × 3) = **1182**
1182 + (12 × 4) = 1230
1230 + (12 × 5) = 1290

S120. Ans.(c)

Sol. The pattern of the series:

$22 + 2^3 = 30$

$30 + 3^3 = 57$

$57 + 5^3 = 182$

$182 + 7^3 = 525$

$525 + 11^3 = \mathbf{1856}$

S121. Ans.(c)

Sol.

For metro,

Total people travelling from metro = 330

Males travelling from metro = $\frac{5}{11} \times 330 = 150$

Females traveling from metro = 330 − 150 = 180

Similarly,

Transportations	Total people travelling	Males	Females
Metro	330	150	180
Autos	360	240	120
Cars	300	130	170
Buses	450	200	250

Males traveling from autos on Sunday = $\frac{65}{100} \times 180 = 117$

Total people travelling from Autos on Sunday = $\frac{450}{2} = 225$

Females travelling from autos on Sunday = $225 - 117 = 108$

S122. Ans.(d)

Sol.

For metro,

Total people travelling from metro = 330

Males travelling from metro = $\frac{5}{11} \times 330 = 150$

Females traveling from metro = 330 − 150 = 180

Similarly,

Transportations	Total people travelling	Males	Females
Metro	330	150	180
Autos	360	240	120
Cars	300	130	170
Buses	450	200	250

ATQ,

$240 \times Y + 6000 \times 120 = 330Y$

$720000 = 90Y$

$8000 = Y$

Required value = $8000 \times 0.5 = 4000$

S123. Ans.(e)
Sol.
For metro,
Total people travelling from metro = 330
Males travelling from metro = $\frac{5}{11} \times 330 = 150$
Females traveling from metro = 330 – 150 = 180
Similarly,

Transportations	Total people travelling	Males	Females
Metro	330	150	180
Autos	360	240	120
Cars	300	130	170
Buses	450	200	250

School going females using cars = $170 \times \frac{11}{17} = 110$
Office going females using cars = $170 \times \frac{6}{17} = 60$
Office going males using cars = 75% of 60 = 45
School going males using cars = 130 – 45 = 85
Required ratio = 85: 110 = 17:22

S124. Ans.(a)
Sol.
For metro,
Total people travelling from metro = 330
Males travelling from metro = $\frac{5}{11} \times 330 = 150$
Females traveling from metro = 330 – 150 = 180
Similarly,

Transportations	Total people travelling	Males	Females
Metro	330	150	180
Autos	360	240	120
Cars	300	130	170
Buses	450	200	250

Females travelling from Rickshaws = $\mathbf{240 \times 3 - (180 + 120) = 420}$
The males traveling from Rickshaws = $\frac{3}{5} \times \mathbf{200 = 120}$
Required percentage = $\frac{120}{420} \times 100 = 28\frac{4}{7}\%$

S125. Ans.(b)
Sol.
For metro,
Total people travelling from metro = 330
Males travelling from metro = $\frac{5}{11} \times 330 = 150$
Females traveling from metro = 330 – 150 = 180

Similarly,

Transportations	Total people travelling	Males	Females
Metro	330	150	180
Autos	360	240	120
Cars	300	130	170
Buses	450	200	250

X = (170+250)-(150+240)
X = 30
$X^2 = 900$

S126. Ans.(e)
Sol.
I. $x^2 + 10x - 75 = 0$
$x^2 + 15x - 5x - 75 = 0$
$x(x + 15) - 5(x + 15) = 0$
$(x - 5)(x + 15) = 0$
$x = 5, -15$
II. $y^2 + 13y + 22 = 0$
$y^2 + 11y + 2y + 22 = 0$
$y(y + 11) + 2(y + 11) = 0$
$(y + 2)(y + 11) = 0$
$y = -2, -11$
So, no relation can be established between x and y.

S127. Ans.(a)
Sol.
I. $y^2 + 16y + 55 = 0$
$y^2 + 11y + 5y + 55 = 0$
$y(y + 11) + 5(y + 11) = 0$
$(y + 5)(y + 11) = 0$
$y = -5, -11$
II. $2x^2 - 3x - 14 = 0$
$2x^2 - 7x + 4x - 14 = 0$
$x(2x - 7) + 2(2x - 7) = 0$
$(x + 2)(2x - 7) = 0$
$x = -2, \frac{7}{2}$
So, x>y

S128. Ans.(d)
Sol.
I. $y = \sqrt{169}$
$y = 13$
II $4x^2 = 676$
$x^2 = 169$
$x = -13, 13$
So, x≤y

S129. Ans.(c)

Sol.

I. $3x^2 - 5x - 28 = 0$

$3x^2 - 12x + 7x - 28 = 0$

$3x(x-4) + 7(x-4) = 0$

$(3x+7)(x-4) = 0$

$x = -\frac{7}{3}, 4$

II. $y^2 - 10y + 25 = 0$

$y^2 - 5y - 5y + 25 = 0$

$y(y-5) - 5(y-5) = 0$

$(y-5)(y-5) = 0$

$y = 5, 5$

So, x<y

S130. Ans.(e)

Sol.

I. $x^2 + 7x - 18 = 0$

$x^2 + 9x - 2x - 18 = 0$

x(x+9) – 2 (x+9) =0

(x+9) (x-2) =0

$x = -9, 2$

II. $y^2 - y - 42 = 0$

$y^2 - 7y + 6y - 42 = 0$

$(y+6)(y-7) = 0$

$y = -6, 7$

So, no relation can be established between x and y.

S131. Ans.(d)

Sol.

Departments	Employees
IT	$\frac{72}{360} \times 700 = 140$
Production	$\frac{64.8}{360} \times 700 = 126$
Manufacturing	$\frac{90}{360} \times 700 = 175$
HR	$\frac{79.2}{360} \times 700 = 154$
Supplier	$\frac{54}{360} \times 700 = 105$

Let female employees in IT = x
Male employees in IT = x – 50
ATQ.
$x + x - 50 = 140$
$2x = 190$
$x = 95$
Required answer = 154 - 45 = 109

S132. Ans.(e)

Sol.

Departments	Employees
IT	$\frac{72}{360} \times 700 = 140$
Production	$\frac{64.8}{360} \times 700 = 126$
Manufacturing	$\frac{90}{360} \times 700 = 175$
HR	$\frac{79.2}{360} \times 700 = 154$
Supplier	$\frac{54}{360} \times 700 = 105$

Required ratio = 140+126 : 154+105
266 : 259 = 38 :37

S133. Ans.(d)

Sol.

Departments	Employees
IT	$\frac{72}{360} \times 700 = 140$
Production	$\frac{64.8}{360} \times 700 = 126$
Manufacturing	$\frac{90}{360} \times 700 = 175$
HR	$\frac{79.2}{360} \times 700 = 154$
Supplier	$\frac{54}{360} \times 700 = 105$

Required percentage = $\frac{90}{360} \times 100 = 25\%$

S134. Ans.(b)
Sol.

Departments	Employees
IT	$\frac{72}{360} \times 700 = 140$
Production	$\frac{64.8}{360} \times 700 = 126$
Manufacturing	$\frac{90}{360} \times 700 = 175$
HR	$\frac{79.2}{360} \times 700 = 154$
Supplier	$\frac{54}{360} \times 700 = 105$

Required difference = (105+175)-(126+154)
= 280-280 = 0

S135. Ans.(a)
Sol.

Departments	Employees
IT	$\frac{72}{360} \times 700 = 140$
Production	$\frac{64.8}{360} \times 700 = 126$
Manufacturing	$\frac{90}{360} \times 700 = 175$
HR	$\frac{79.2}{360} \times 700 = 154$
Supplier	$\frac{54}{360} \times 700 = 105$

Number of employees in marketing = $140 \times \frac{125}{100} = 175$

Required percentage = $\frac{(175-105)}{175} \times 100 = 40\%$

S136. Ans.(e)
Sol.

Time taken by C = $\frac{2}{3} \times 36 = 24\ days$

Time taken by A = $\frac{5}{4} \times 24 = 30\ days$

Total work = 360 (LCM of 24, 30 and 36)

Efficiency of C= $\frac{360}{24} = 15\ units/days$

Efficiency of A = $\frac{360}{30} = 12\ units/days$

Efficiency of B = $\frac{360}{36} = 10\ units/days$

Required days = $\frac{360}{(15+12+10)}$ = 9.729 ≈10 days

S137. Ans.(e)

Sol.

Let speed of stream be 2x km/hr.

So, speed of boat in still water = $2x \times \frac{250}{100} = 5x$ km/hr.

ATQ,

$\frac{126}{(5x-2x)} - \frac{126}{(5x+2x)} = 4$

$\frac{126}{3x} - \frac{126}{7x} = 4$

$x = 6$

Required answer = 5x – 2x = 3x = 18 km/hr

S138. Ans.(b)

Sol.

ATQ,

$R\% = \frac{3rd\ year\ C.I. - 2nd\ year\ C.I.}{2nd\ year\ C.I} \times 100$

$= \frac{3967.5 - 3450}{3450} \times 100$

$= 15\%$

S139. Ans.(d)

Sol.

Let the four numbers be a, b, c, d

ATQ,

$b = 3a;\ \ c = 6b$

$a : b : c = 1 : 3 : 18\ or\ x : 3x : 18x$

$\frac{a+b+c}{3} = 66$

$x = 9$

$d = 4 + 66 = 70$

Required average $= \frac{a+d}{2} = \frac{9+70}{2} = 39.5$

S140. Ans.(d)

Sol.

Time taken by car X to travels from A to B $= \frac{100}{50} = 2$ **hours**

Total distance travel by car Y from A to C $= 2 \times 60 = 120$ **km**

Distance between C and B $= 120 - 100 = 20$ **km**

S141. Ans.(c)

Sol. Let the investment of Ram and Shyam be Rs. 3P and Rs. 4P respectively.

Let Ram and Shyam invested for 'a' months and 'b' months respectively

ATQ –

$\frac{3P \times a}{4P \times b} = \frac{2700}{5100-2700}$

$\frac{3a}{4b} = \frac{9}{8}$

a: b = 3m: 2m

ATQ,

3m – 2m = 3

m = 3

Investment period of Ram = 9 months

S142. Ans.(c)

Sol. Let the present age of husband be 11x

Present age of wife is 8x

Present age of son is 3 years

Now,

Sum of ages of all three after 5 years = 25 ×3=75 years

Sum of present age of all the three = 75 – 15 = 60 years

11x + 8x + 3 = 60 years

19x = 57

x = 3

Present age of father = 33 years

When son is 10 years old

Age of father = 40 years

S143. Ans.(b)

Sol.

Let cost price be Rs.100a

Selling price = $100a \times \frac{112.5}{100} = Rs.112.5a$

Marked price = $\frac{112.5a}{75} \times 100 = Rs.150a$

Mark up percentage = $\frac{150a-100a}{100a} \times 100 = 50\%$

Value of X = 50

Required value = $\frac{50}{2} = 25$

S144. Ans.(b)

Sol.

Quantity of water = $60 \times \frac{5}{12} = 25\ liters$

Quantity of milk = 60 – 25 = 35 liters

Now water left after replacement = $25 - 24 \times \frac{5}{12} = 25 - 10 = 15\ liters$

Milk left after replacement = $35 - 24 \times \frac{7}{12} = 35 - 14 = 21\ liters$

New quantity of milk = 21 + 10 = 31 liters

Required ratio = 31: 15: 24

S145. Ans.(e)
Sol.
Let the speed of the train be a m/s.
ATQ,
$\frac{X+50+X}{19} = \frac{X}{9}$
$18X + 450 = 19X$
$X = 450\ m$
$a = \frac{450}{9} = 50\ m/s$
Required time = $\frac{450+250}{50+72\times\frac{5}{18}} = \frac{700}{70} = 10\ sec.$

S146. Ans.(e)
Sol. ? = 2549 + 2556 – 1841 – 1984
? = 5105 – 3825
? = 1280

S147. Ans.(b)
Sol. ? = 1090 × 10 – 135 ×45
? = 10900 – 6075
? = 4825

S148. Ans.(e)
Sol. 62 / (31 × 2) + ? = 8
? + 1 = 8
? = 7

S149. Ans.(b)
Sol. 1728/1728 + 1331 = ?
? = 1332

S150. Ans.(a)
Sol. ? = 2020 – 2000 + 55
? = 75

S151. Ans.(d)
Sol.
Let speed of current be x kmph
Time taken in upstream = $\frac{56}{48-x} = 1.4$
$(48 - x) \times 1.4 = 56$
x = 8
Time taken in downstream = $1.4 \times \frac{100}{112} = 1.25$
Let the distance covered in downstream be D km
$\frac{D}{48+8} = 1.25$
D = 70 km

S152. Ans.(a)
Sol.
Time taken in upstream on day3 = $\frac{40}{36-12} \times 60 = 100\ minutes$
Time taken in downstream on day3 = $\frac{7}{10} \times 100 = 70\ minutes$
Distance travelled by boat on day3 in downstream = $(36 + 12) \times \frac{70}{60} = 56km$
Required difference = 56 - 40 = 16 km

S153. Ans.(e)
Sol.
Let Speed of stream be x kmph
Distance travelled by boat in downstream on day5 = $\frac{125}{100} \times 48 = 60\ km$
$\frac{\frac{48}{(42-x)}}{\frac{60}{42+x}} = \frac{16}{15}$
960/(42 + x)= 720/(42-x)
30240 + 720x = 40320-960x
x = 6 kmph

S154. Ans.(c)
Sol.
Upstream speed = $\frac{48}{2} = 24kmph$
Speed of the current = 42 – 24 = 18 kmph

S155. Ans.(d)
Sol.
Speed of stream on day2 = x kmph
Speed of stream on day4 = y kmph
$\frac{84}{52 + x} = 1.5$
x = 4 kmph
$\frac{50}{36 + y} = 1.25$
y = 4 kmph
Distance travelled in upstream on day2 = $(52 - 4) \times 1.5 = 72\ km$
Distance travelled in upstream on day4 = (36-4) × 1.25 = 40 km
Required distance = 72 - 40 = 32 km

S156. Ans.(a)
Sol.
Downstream distance = $5 \times 40 + 8 = 208\ km$
Let speed of the current be y kmph

ATQ, $\frac{208}{36+y}+\frac{40}{36-y}=6$

Using options

y = 16 kmph

S157. Ans.(b)

Sol.

Let present age of A be 'a' and B be 'b'

Form I. $(a+2)=\frac{2b}{3}$

3a + 6 = 2b

2b − 3a = 6

From II. Let present age of C = c

So, a + b + c = 60

We have no information about age of C, so we can't determine any of the given present age

S158. Ans.(d)

Sol.

From I. $\frac{40}{100}\times x=\frac{125}{100}\times y$

40x =125y

8x = 25y

x : y = 25 : 8

From II. $x-y=\frac{x}{2}+36$

x = 2y + 72

From I and II. Let x and y be 25a & 8a respectively

25a = 16a + 72

9a = 72

a = 8

So, x = 200

And y = 64

So, both I and II together sufficient

S159. Ans.(e)

Sol. Let the length of rectangle be 12x and breadth of the rectangle 5x

From I. $\sqrt{144x^2+25x^2}=13$

13x = 13

x = 1

Required perimeter = 2(12+5) =34 cm

From II. $12x\times 5x=60$

x = 1

Required perimeter = 2(12+5) =34 cm

So, either I alone or II alone

S160. Ans.(c)

Sol. From I. Let male employees and female employees in the company be x and 2x respectively

From II. Female employees = 560

Male employees = $560 \times \frac{75}{100} = 420$

Total employees in the company = 560 + 420 = 960

So, we can answer from II only