SBI PO Prelims Previous Year Paper 2022 Mock 3

Directions (1-8): Read the passage carefully and answer the following questions.

Between 1900 and now, developed countries have benefitted from industrial development, which also led to greenhouse gas (GHG) emissions. Developing countries were **relatively** late in starting out on economic development. They may be contributing to emissions now, but that is a weak reason to ask them to stop economic development. A farmer in rural Africa can claim that his country has not added to emissions historically, but because of the U.S. or Russia's industrialisation, his agriculture yields are declining. Or an urban worker in South America has to work, without choice, in unforgiving heat wave conditions caused by the developed world's emissions of the past. Therefore, options like financing the developing or underdeveloped countries by the developed world have often been discussed.

A paper published by Springer Link earlier this year shows that emissions attributable to the U.S. over 1990-2014 caused losses that are concentrated around 1–2% of per capita GDP across nations in South America, Africa, and South and Southeast Asia, where temperature changes have likely impacted labour productivity and agricultural yields.

But emissions may have also helped a few countries, such as those in Northern Europe and Canada. Moody's Analytics estimates that by the middle of the century, Canada would see a rise in GDP of 0.3% (about $9 billion a year) as warmer climates **spur** agriculture and labour productivity. The Canadian Climate Institute cautioned that such a claim was not wholly true and that other factors must be considered. For example, climate change-spurred floods could cost Canada $17 billion annually by 2050.

In this war of words, the only _____ is the fast-approaching calamity. The UN Environment Programme's annual emissions gap report for 2022 released late last month said the "international community is falling far short of the Paris goals, with no credible pathway to 1.5°C in place. Only an urgent system-wide transformation can avoid climate disaster.... The world must cut emissions by 45% to avoid global catastrophe."

Q1. Why can developing countries specifically not be asked to stop industrialisation?
(a) Developing countries do not produce emissions as much as developed countries.
(b) Developing countries do not emit large amounts of greenhouse gases.
(c) Developing countries cannot afford to stop their economic progress.
(d) Emissions for developing countries are decreasing in amount every year.
(e) None of these

Q2. How has industrialisation in developed countries affected the other countries of the world?
(I) Stunted industrialisation due to economic advantage of developed countries.
(II) There has been a decline in agriculture in many countries due to emissions.
(III) Working conditions in these countries have worsened due to change in climate.
(a) I and II
(b) Only II
(c) II and III
(d) Only III
(e) All of these
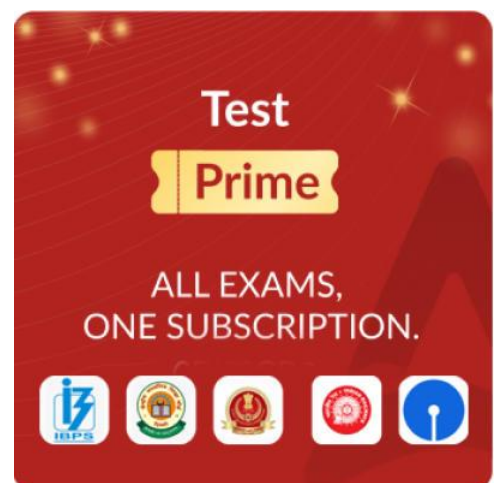
Q3. What conflict finds an explicit reference in the passage?
(a) If climate change really poses a threat to all countries
(b) If industrialisation really leads to climate change
(c) If climate change is overall beneficial to some countries
(d) If industrialisation can feasibly be stopped from harming the environment
(e) If developed countries should curb emissions more

Q4. Why is there a need to take steps to cut back emissions by developed countries?
(a) Countries all around the world suffer from the consequences of climate change regardless for who is to blame.
(b) Economic development in many countries suffers due to climate change resulting from emissions.
(c) Underdeveloped countries especially bear the consequences of climate change due to tropical climates.
(d) Both a) and b)
(e) All of these

Q5. Which of the following is true with respect to the passage?
(a) The author suggests that developed countries should aid other countries in financing and healthcare.
(b) Global emissions must be decreased to 45% of the current amount to avoid a global disaster
(c) The international community has failed to bring down the temperature 1.5 degrees Celsius by 2022.
(d) Canada floods caused a damage worth 17 billion dollars by 2022 due to climate change.
(e) All are false

Q6. Which of the following most appropriately fill the blank given in the passage?
(a) dilemma
(b) certainty
(c) appeal
(d) decision
(e) prospect

Q7. Which of the following is most similar in meaning to the word "spur" as is highlighted in the passage?
(a) induce
(b) protect
(c) prevent
(d) dispense
(e) provide

Q8. Which of the following is most similar in meaning to the word "relatively" as is highlighted in the passage?
(a) merely
(b) especially
(c) repetitively
(d) comparatively
(e) disproportionately

Directions (9-14): Read each sentence to find out whether there is any grammatical or idiomatic error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is 'No error', the answer is (E). (Ignore errors of punctuation, if any.)

Q9. E-commerce companies made (A) /delivery their core competence (B) /by putting boots on the (C) /ground and even drones in the sky. (D) /No error(E)

(a) A
(b) B
(c) D
(d) C
(e) No error

Q10. The ubiquitous growth of the internet and the rise of **(A)** /e-commerce have fuelled hyper lapse consumerism, which **(B)** / refers not only to the kinds of products been sold but **(C)** /also to the ease with which consumers order them. **(D)** / No error**(E)**
(a) A
(b) C
(c) D
(d) B
(e) No error

Q11. A storehouse of nutrients, **(A)** / the drumstick is a **(B)** /common part of the **(C)** / daily diet in southern India **(D)**/ No error**(E)**
(a) A
(b) C
(c) D
(d) B
(e) No error

Q12. For the classical period, there have **(A)** / been significant contributions from **(B)** / literary personalities belonging to **(C)** / Sri Lanka's Tamils to Tamil literature **(D)**/ No error**(E)**
(a) B
(b) A
(c) D
(d) C
(e) No error

Q13. The sunlight from the old and **(A)** /arched window of the gallery was **(B)** /falling on the panels of painting **(C)** / making a shadow-like triangles **(D)**/ No error**(E)**
(a) A
(b) C
(c) D
(d) B
(e) No error

Q14. Sitting in the sun, away from **(A)**/everyone who had done him **(B)**/ harm in the past, he quietly **(C)**/listen to those who roamed by **(D)**/ No error**(E)**
(a)A
(b)B
(c)C
(d)D
(e)No Error

Directions (15-16): In each sentence, four words are highlighted, which may or may not be correctly placed. Choose the correct replacement within the highlighted words so that the sentence thus formed will be grammatically and logically correct.

Q15. The **period** (A) study showed a/an **predominance** (B) of the Omicron BA.2 variant **outcompeting** (C) the BA.1 over a/an **current** (D)in eastern Uttar Pradesh.
(a)Only (A)-(B)
(b)Only (A)-(C) and (B)-(D)
(c)Only (C)-(D)
(d)Only (A)-(D)
(e)No replacement needed

Q16. The US is a particularly **vociferous** (A) opponent, and is **sanctions** (B) **threatening** (C)against European companies **involved** (D)in the project.
(a)Only (C)-(B)
(b)Only (A)-(C) and (B)-(D)
(c)Only (C)-(D)
(d)Only (A)-(D)
(e)No replacement needed

Directions (17-22): Rearrange the following sentences in the proper sequence to form a meaningful paragraph; then answer the questions given below them.
(A) The Green Revolution of the 1960s brought about a marked improvement in the yield of agricultural crops such as rice and wheat
(B) India saw a threefold increase in rice yield per hectare
(C) It was based on the use of newly developed high-yielding crop varieties in conjunction with the intense use of irrigation, chemical fertilisers and pesticides
(D) Now, 50 years later, some negative effects of this intense methodology are becoming apparent- nitrogen fertilisers pose environmental hazards, and agricultural soil is increasingly fatigued.
(E) Subsequently, to obtain more food for the world's growing population, forests and grasslands would have to be converted to farms in order to produce food.

Q17. Which of the following should be the **FIRST** statement after rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Q18. Which of the following should be the **THIRD** statement after rearrangement?
(a) B
(b) C
(c) D
(d) A
(e) E

Q19. Which of the following should be the **SECOND** statement after rearrangement?
(a) A
(b) C
(c)D
(d)E
(e)B

Q20. Which of the following should be the **FIFTH** statement after rearrangement?
(a)B
(b)C
(c)D
(d)A
(e)E

Q21. Which of the following should be the **FOURTH** statement after rearrangement?
(a)A
(b)B
(c) E
(d) C
(e) D

Q22. Which of the following should be the correct arrangement of the sentences?
(a) ACBDE
(b) BCADE
(c) CDAEB
(d) DABEC
(e) None of the above

Directions (23-24): In each question a word is given and with respect to that three sentences are given using that word. Choose the sentence(s) that has/have the correct usage of the word.

Q23. Insensate
(i) Due to an attack of an illness, his body has become permanently **insensate**.
(ii) An **insensate** driver will drive recklessly and endangering both his life and the lives of others.
(iii) When you viewed the handbag up close, you could tell it was an **insensate** knockoff.
(a) All of these
(b) Only (i)
(c) Both (ii) & (iii)
(d) Both (i) & (ii)
(e) Only (iii)

Q24. Ingenious
(i) Over the previous two days he had been feeling increasingly tired, **ingenious**, polyureic, and thirsty
(ii) Although you are a fast runner, it is **ingenious** to think you can catch that car on foot.
(iii) It's quite an **ingenious** method considering the time and the era that he was – he grew up in
(a)All of these
(b) Only (i)
(c) Both (ii)
(d) Both (i) & (ii)
(e) Only (iii)

Directions (25-30): In each of the questions given below four words are given in bold. These words may or may not be in their correct position. Following each sentence four sequences are provided. Select the sequence of the words which will make the given sentence contextually meaningful. If the words are correct at their current positions, then choose option (E) as your answer

Q25. It is true that a large percentage of **variant (A)**, both fully vaccinated and even **boosted (B)** and the unvaccinated were **infected (C)** with one or more of Omicron **people (D)** sub-lineages.
(a) ABDC
(b) ACBD
(c) DBCA
(d) DCAB
(e) No interchange required

Q26. The Rajasthan government by organising the **giving (A)** Mahakumbh of rural sports in the state is not **only(B)** strengthening the infrastructure, but also **first** (**C**)birth to a new sports culture by promoting **rural(D)** sports.
(a) CBAD
(b) DBCA
(c) ABDC
(d) ACDB
(e) No interchange required

Q27. People who spent **mentally(A)** than six hours working on a **more (B)** taxing assignment had higher **brain (C)** of glutamate, which can disrupt **levels (D)** functions.
(a) DABC
(b) ABDC
(c) BADC
(d) CADB
(e) No interchange required

Q28. It may take a few more days for the **during(A)** people to return to their **houses (B)** and clean up their **habitations (C)** that were filled with mud deposited **tribal (D)** the floods.
(a) DCBA
(b) CDBA
(c) ABDC
(d) DABC
(e) No interchange required

Q29. The programme aims at a **promote** (**A**) revival of millets in farms and plates to **comprehensive(B)** climate resilient farming and **deficiency (C)** to addressing micronutrient **contribute(D)**.
(a) ABDC
(b) CADB
(c) DCAB
(d) BADC
(e) No interchange required

Q30. There is a **buzz (A)** in India about the **permanent (B)** of the country becoming a **prospects (C) member(D)** of the United Nations Security Council.
(a)ACBD
(b)BDAC
(c)CBDA
(d)CBAD
(e)No rearrangement required

Q31. A, B and C are partners in a business. Their investment are Rs. 5,000, Rs.7,000 & Rs.10,000 respectively. B get 12% profit of total profit for managing the business. The remaining profit is divided among them in the ratio of their investment at the end of the year. If the profit of B is Rs.2,500 less than the sum of the profit of A & C together, then what was the profit earned by A ?
(a) Rs. 3,500
(b) Rs. 3,250
(c) Rs. 3,000
(d) Rs. 2,700
(e) Rs. 2,500

Q32. Two trains running in opposite direction and cross a pole in 25 seconds and 32 seconds respectively. If they cross each other in 28 seconds, then find the ratio of their speed.
(a) 4: 5
(b) 2: 1
(c) 2: 3
(d) 4:3
(e) 1: 3

Q33. Mukesh invests Rs.2Z in simple interest at the rate of 20% p.a. for X years & receive simple interest as Rs. Z. If Sonu invest Rs. 3Z under simple interest at the rate of Y % p.a. for X years and receive simple interest Rs. 2Z, then find X is what % of Y?
(a) 6.66%
(b) 10%
(c) 7.250%
(d) 8.50%
(e) 9.375%

Q34. A vessel contains 250 liters of mixture of alcohol and water in the ratio of 7:3. 45 liters of mixture is added in container, which contain water and alcohol in the ratio of 5:4. Find the difference in the amount of water and alcohol in the final mixture.
(a) 95 lit.
(b) 55 lit.
(c) 65 lit.
(d) 85 lit.
(e) 75 lit.

Q35. A shopkeeper marked an article 60% above the cost price & sold it after two consecutive discount 20% and 25%. Find the marked price, if the difference between selling price and cost price is Rs. 220.
(a) Rs. 4,800
(b) Rs. 5,800
(c) Rs. 8,800
(d) Rs. 7,800
(e) Rs. 6,800

Directions (36-40): In each question two equations numbered (I) and (II) are given. You should solve both the equations and mark appropriate answer.

Q36.

I. $3x^2 - 14x + 8 = 0$

II. $3y^2 - 20y + 12 = 0$

(a) If x=y or no relation can be established

(b) If x>y

(c) If x<y

(d) If x≥y

(e) If x≤y

Q37.

I. $6x^2 + 23x + 21 = 0$

II. $3y^2 - 14y - 5 = 0$

(a) If x=y or no relation can be established

(b) If x>y

(c) If x<y

(d) If x≥y

(e) If x≤y

Q38.

I. $2x^2 - 17x + 36 = 0$

II. $y^2 - y - 12 = 0$

(a) If x=y or no relation can be established

(b) If x>y

(c) If x<y

(d) If x≥y

(e) If x≤y

Q39.

I. $x^2 + 14x + 45 = 0$

II. $3y^2 - y - 10 = 0$

(a) If x=y or no relation can be established

(b) If x>y

(c) If x<y

(d) If x≥y

(e) If x≤y

Q40.

I. $4x^2 - 17x + 116 = 3x^2 + 4x + \sqrt{64}$

II. $(y + 14)(y - 14) = 60$
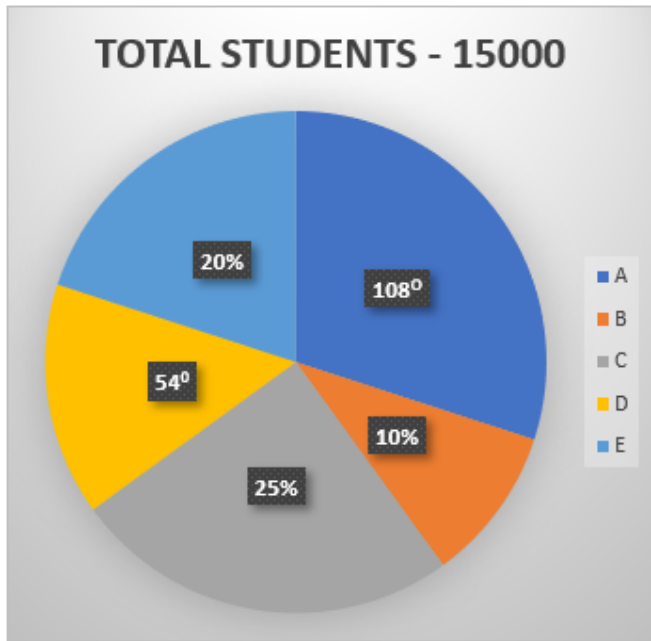
(a) If x=y or no relation can be established

(b) If x>y

(c) If x<y

(d) If x≥y

(e) If x≤y

Directions (41-45): The following pie chart gives information about the distribution of no. of students in five government schools. Read the following pie chart carefully and answer the following questions given below.

TOTAL STUDENTS - 15000

Q41. If 30% and 20% of students in school A and D are girls respectively then find how many boys are present in the in the school A and D?
(a) 4150
(b) 2250
(c) 3150
(d) 4950
(e) 4880

Q42. Find the average of students studying in school A, D and E?
(a) 1050
(b) 2250
(c) 7890
(d) 3250
(e) 4525

Q43. If the fee of students studying in B, C and D is Rs 50, Rs 30 and Rs 40 respectively. Find the total fee collection in these schools.
(a) 277500
(b) 378700
(c) 322322
(d) 250040
(e) 354700

Q44. Find the difference of students studying in A and D together and B and C together?
(a) 1000
(b) 2500
(c) 1500
(d) 9000
(e) 3460

Q45. Find the difference of student studying in A and the average number student studying in C and D together?
(a) 550
(b) 400
(c) 2500
(d) 2250
(e) 1500

Q46. The breadth and length of a bigger rectangle are 93 cm and 152 cm respectively. If breadth of smaller rectangle is 1/3rd of the breadth of bigger rectangle and length of smaller rectangle is 1/4th of the length of bigger rectangle, then find the area of smaller rectangle.
(a) 938 cm²
(b) 1328 cm²
(c) 1178 cm²
(d) 1018 cm²
(e) 1248 cm²

Q47. Average age of a family of five persons, five years ago was 36 years. In between these five years the family adopted a child. Now at present the average age of the family is same as it was five years ago. Find the present age of the child.
(a) 6 years
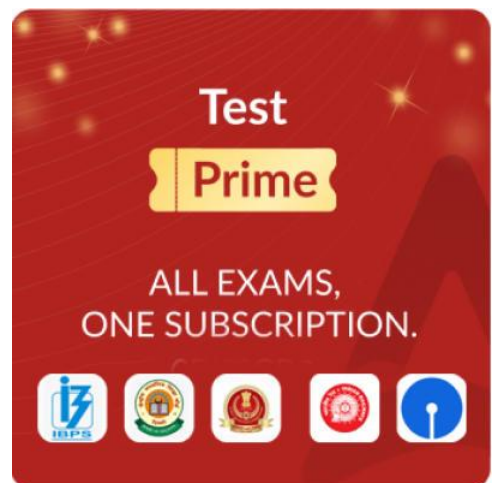(b) 9 years
(c) 17 years
(d) 11 years
(e) 14 years

Q48. Tashu sold an article at a profit of 30% to Mahi who further sold the same article to Jony at a loss of 10%. If Jony sold the article to Khushi for Rs. 2691 at a profit of 15%, then find the cost priced of the article for Tashu.
(a) Rs. 2,600
(b) Rs. 2,000
(c) Rs. 2,500
(d) Rs. 1,800
(e) Rs. 2,250

Q49. Find the average of five consecutive natural numbers, if the largest number is 40% more than the lowest number.
(a) 10
(b) 19
(c) 17
(d) 15
(e) 12

Q50. A boat covers 22.4 km in downstream in 48 minutes and the speed of the stream is 40% of the speed of the boat in still water. Find the ratio of time taken by boat to cover 54 km in upstream to the time taken by boat to cover 210 km in downstream respectively?

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

Q51. An amount is divided among Deepak, Shivam and Prashant. Amount received by Deepak is Rs. 40 more than 40% of total amount and amount received by Shivam is Rs. 5 more than 25% of total amount, while amount received by Prashant is 32% of total amount. Find the amount received by Shivam.
(a) Rs.480
(b) Rs.640
(c) Rs.540
(d) Rs.450
(e) Rs.380

Q52. 14 men working together can complete a piece of work in 18 days while 21 women working together can complete same work in 20 days. If a child is 20% less efficient than a man, then find the time taken to complete the same work by 15 children working together.
(a) 28 days
(b) 21 days
(c) 24 days
(d) 20 days
(e) 18 days

Q53. Average weight of 38 children in the class is 15 kg. If 4 children left the class whose average weight is 40 kg and 2 students joined the class whose average weight is 35 years, then find the average weight of all children in the class.
(a) 55 kg
(b) 40/3 kg
(c) 43 kg
(d) 41/9 kg
(e) 34 kg

Q54. A person travelled 750 km by train, 440 km by bus and 210 km by car. It took 25 hours in all. If the ratio of speed of car to bus is 7:11 and ratio of speed bus to train is 11:25, then find is the speed of bus?
(a) 44 km/h
(b) 62 km/h
(c) 56km/h
(d) 32 km/h
(e) 23 km/h

Q55. Time taken by pipes A, B and C together to fill a tank is 45 minutes and time taken by pipes B and C together to fill the same tank is 75 minutes. If pipe B is 100% more efficient than pipe C, then find time taken by pipe A and B together to fill the same tank.
(a) 56.25 minutes
(b) 50.25 minutes
(c) 46.25 minutes
(d) 54.25 minutes
(e) None of the above

Directions (56-60): The bar graph shows the total number of people (men and women) and the number of men visiting five different yoga centers (P, Q, R, S, and T) in a town. Read the following bar graph carefully and answer the questions given below.
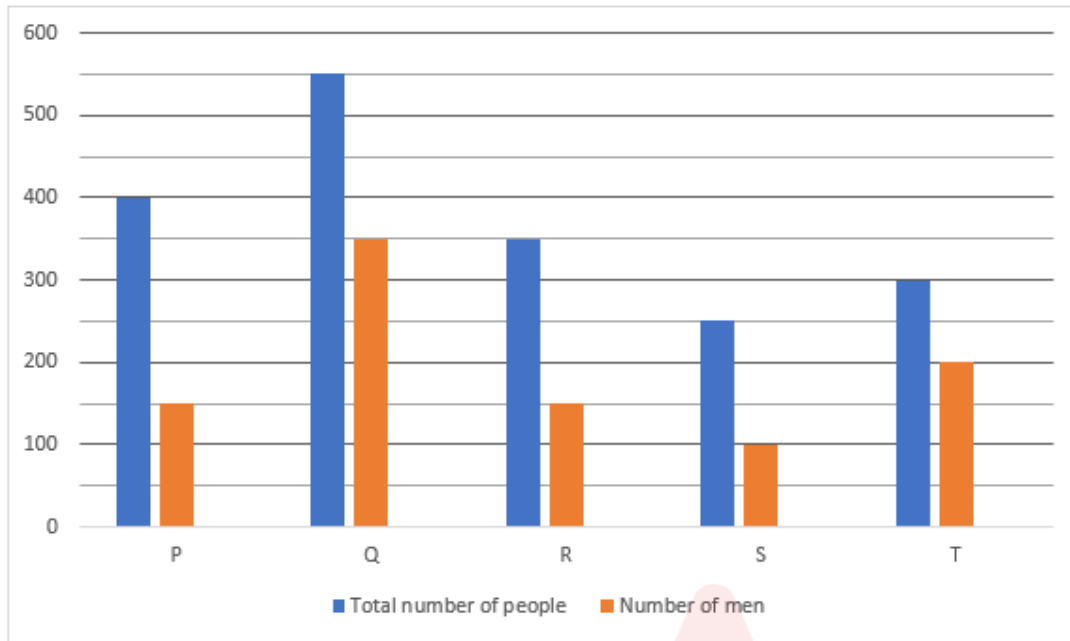
Q56. The number of women visiting yoga Centre Q is what % the number of men visiting yoga Centre T?
(a) 33⅓%
(b) 25%
(c) 50%
(d) 75%
(e) 100%

Q57. Find the ratio between total number of women visiting yoga Centre P and S together to total number of men visiting yoga Centre R and P together.
(a) 8:7
(b) 2:3
(c) 5:7
(d) 4:3
(e) 2:5

Q58. Find the difference between average number of men visiting yoga Centre T and Q together and average number of women visiting yoga Centre P and R together.
(a) 100
(b) 75
(c) 50
(d) 25
(e) 125

Q59. Find the average of total number of women in visiting all yoga centers.
(a) 210
(b) 180
(c) 255
(d) 168
(e) 322

Q60. If 40% women visiting in yoga Centre T are unmarried and 55% men visiting in that Centre are married, then find the total number of unmarried men and unmarried women who visit yoga Centre T together.
(a) 130
(b) 150
(c) 170
(d) 110
(e) 90

Directions (61-65): What approximate value will come in place of question mark (?) in the following questions (You are not expected to calculate the exact value).

Q61. $\frac{?+4.97}{39.789\ \%\ of\ 450.22} \times (5.012)^2 = (19.92)^2 - (14.897)^2$
(a) 1255
(b) 1355
(c) 1455
(d) 1155
(e) 1055

Q62. $\sqrt{24.98} + \sqrt[8]{214} +? = \frac{2}{5} \times (49.79\ \%\ of\ 650.232)$
(a) 69
(b) 87
(c) 128
(d) 119
(e) 102

Q63. (680.25+914.95)÷4.85=?+65.22 % of 199.67
(a) 178
(b) 185
(c) 189
(d) 192
(e) 198

Q64. $845.023 + 97.98 + 6.81 =? \times \frac{18.73}{23.012}$
(a) 780
(b) 1320
(c) 1020
(d) 980
(e) 1150

Q65. $39.842\%\ of\ \sqrt{3022} + 50.11\%\ of\ 2129.74 =?$
(a) 989
(b) 1087
(c) 1054
(d) 972
(e) 957

Directions (66-70): Study the following information carefully and answer the questions given below.

Ten persons A, B, C, D, E, F, G, H, I, and J are sitting in a parallel row such that five persons sit in each row but not necessarily in the same order. Persons sit in row 1 face south direction and the persons sit in row 2 face north direction. Persons sit in row 1 face the persons sit in row 2 and vice versa. Consecutive named person according to alphabetical order neither sit adjacent nor opposite to each other.

J sits 3rd to the right of G and either of them sit at the extreme end of the row. One person sits between H and I and none of them sit at any extreme end of the row. B sits 2nd to the right of F who sits diagonally opposite to D. C faces the one who sits 3rd to the left of A who doesn't face south.

Q66. Who among the following sits second to the right of D?
(a) G
(b) B
(c) A
(d) I
(e) None of these

Q67. Who sits second to the right of F?
(a) G
(b) B
(c) C
(d) E
(e) None of these

Q68. Number of persons sit to the left of _____ is same as the number of persons sit to the right of _____.
(a) J, F
(b) I, J
(c) A, H
(d) D, B
(e) F, G

Q69. How many persons sit between D and E?
(a) None
(b) Two
(c) Three
(d) One
(e) None of these

Q70. Who among the following sits to the right of I?
(a) J
(b) A
(c) C
(d) F
(e) None of these

Directions (71-72): Study the following information carefully and answer the given questions.
In a certain code language,
'calendar published university exam' is coded as 'zq ie mn as'
'important schedule published university' is coded as 'mn bn st ie'
'important time university exam' is coded as 'cd as mn bn'
'calendar exam student test' is coded as 'zq as zx yx'

Q71. Which of the following is the code for 'schedule'?
(a) st
(b) bn
(c) ie
(d) mn
(e) None of these

Q72. Which of the following word is coded as 'bn'?
(a) time
(b) exam
(c) schedule
(d) Important
(e) None of these

Directions (73-77): Study the following information carefully and answer the questions given below.
A certain number of persons are sitting in a row facing south direction. G sits 4th to the right of W who sits 3rd to the left of P. The number of persons sit between P and W is same as the number of persons sit to the right of G. E sits 3rd to the left of A. Six persons sits between E and F. Odd prime number of persons sit between G and H who doesn't sit to the right of A. Five persons sit between P and A. Four persons sit to the left of A.

Q73. Who sits 3rd to the right of A?
(a) F
(b) H
(c) G
(d) W
(e) None of these

Q74. Who sits 2nd from the right end of the row?
(a) E
(b) W
(c) H
(d) P
(e) Unknown person

Q75. How many persons sit between H and W?
(a) Five
(b) Six
(c) Four
(d) Three
(e) None of these

Q76. What is the position of W with respect to E?
(a) 7th to the right
(b) Immediate left
(c) 6th to the right
(d) 5th to the left
(e) None of these

Q77. How many persons are sitting in the row?
(a) 13
(b) 14
(c) 15
(d) 16
(e) None of these

Q78. If it is possible to make a meaningful word from 1st, 2nd, 4th, and 5th letters from left end of word "PRUDENTIAL", then which will be the 2nd letter of the meaningful word from left end (using each letter once)? If no such meaningful word be formed, then mark the answer as 'Y'. If more than one meaningful word can be formed then mark the answer as 'X'.
(a) Y
(b) P
(c) D
(d) E
(e) X

Directions (79-80): In these questions, the relationship between different elements is shown in the statements. The statements are followed by conclusions. Study the conclusions based on the given statements and select the appropriate answer:

Q79. Statements:
P≤O>Q<W>X>F≥L=B
Conclusion
I: O>X
II: W>L
(a) If only conclusion I true
(b) If only conclusion II true
(c) If either conclusion I or II true
(d) If neither conclusion I nor II true
(e) If both conclusions I and II true

Q80. Statements:
E>P= L≥O=M≤V=Z>A
Conclusion
I: E>M
II: O<Z
(a) If only conclusion I true
(b) If only conclusion II true
(c) If either conclusion I or II true
(d) If neither conclusion I nor II true
(e) If both conclusions I and II true

Directions (81-83): 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 conclusions logically follows from the given statements, disregarding commonly known facts.

Q81. Statements:
Some Dog are Cat.
No Horse is Dog.
Only a few Cat is Rat.
Conclusions:
I. All Rat is Dog is a possibility.
II. Some Cat is not Horse
(a) Only I follows
(b) Both I and II follow
(c) Only II follows
(d) None follows
(e) None of these

Q82. Statements:
Only Purple is Yellow.
All olive is purple.
Only a few Green is Olive.
Conclusions:
I. Some Olive is Yellow is a possibility
II. Some Purple is Green is a possibility
(a) Only I follows
(b) Both I and II follow
(c) Only II follows
(d) Either I or II follows
(e) None follows

Q83. Statements:
All Book are Paper.
No Paper is Test.
All Book is Marks.
Conclusions:
I. Some Marks is not Test
II. All Test is Book.
(a) Only II follows
(b) Both I and II follow
(c) Only I follows
(d) Either I or II follows
(e) None follows

Directions (84-86): Study the following information carefully and answer the questions given below.
Point K is 6m south of point T and 10m west of point B. Point F is 5m to the east of point C. Point S is 12m to the north of point A and 9m to the west of point T. Point F is 7m to the south of point B.

Q84. What is the total distance from point K to point C?
(a) 22m
(b) 25m
(c) 31m
(d) 34m
(e) 28m

Q85. 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) S-K

(b) K-F

(c) C-B

(d) T-F

(e) A-C

Q86. What is the shortest distance between point S and point K?

(a) 117m

(b) $\sqrt{113}$m

(c) 231m

(d) $2\sqrt{15}$m

(e) $\sqrt{117}$m

Directions (87-91): Study the following information carefully and answer the questions given below:

Eight persons R, S, T, U, V, W, X, Y are going to attend different events (but not necessarily in the same order) on two different dates i.e., 11 or 28 of four given months viz. September, October, November and December.

R attends an event on odd date in the month which has even numbers of days. Two persons are attending an event between S and R. No one attend an event between S and W. S and W does not attend event in same month. There are as many persons attend event before T is same as attend after Y. V attend event just after Y but not on odd date. U does not attend an event after X.

Q87. Who among the following attends the event on 11th of November?

(a) W

(b) T

(c) S

(d) U

(e) None of these

Q88. Who among the following attend event immediately before T?

(a) W

(b) X

(c) S

(d) U

(e) None of these

Q89. How many persons attend an event between V and W?

(a) One

(b) Three

(c) Four

(d) Two

(e) None of these

Q90. S goes in which of the following month?

(a) November

(b) September

(c) December

(d) October

(e) Either October or December

Q91. Which of the following pair attend event in the same month?
(a) S and U
(b) X and V
(c) U and V
(d) T and Y
(e) U and Y

Directions (92-96): Study the following information carefully and answer the questions given below-
Eight persons are living on different floors of a nine-storey building. Ground floor is numbered as 1st floor and just above the 1st floor is numbered as 2nd floor and so on till the topmost floor is numbered as 9th floor. There is one vacant floor.
More than three floors gap between Q and U both of them live on even numbered floors. R lives below Q and no one live between them. The number of persons live above R is same as the number of persons live below T. The number of persons live between R and T is half than the number of persons live below V. S lives three floors above W and lives on an even numbered floor. Odd numbered floors gap between P and V. R does not live on even numbered floor.

Q92. How many persons live between R and U?
(a) 2
(b) More than 4
(c) 4
(d) 3
(e) None of these

Q93. Which of the following is true regarding to S?
(a) V lives just below S
(b) S lives on the 6th floor
(c) U lives below S but not just below
(d) More than four persons live above S
(e) None is true

Q94. 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) P
(b) R
(c) W
(d) V
(e) Q

Q95. The number of floors gap between V and U is same as the number of persons live between ___ and ___.
(a) P, S
(b) S, Q
(c) U, R
(d) W, V
(e) Q, V

Q96. Which of the following combination is correct?
(a) 7th floor- V
(b) 5th floor- T
(c) 8th floor- Q
(d) 2nd floor- P
(e) 9th floor- W

Directions (97-99): Study the following information carefully and answer the question given below-

Six books B, C, D, F, N and V contain different number of pages are arranged in descending order from left end according to the number of pages.

Book N contains least pages of odd prime numbered pages but less than 7. Number of books between book N and book F is same as the number of books between book C and book F. Book B contains just least pages than book F which contains thrice number of pages than book N. The book which contains just more pages than book V contains the pages which is square of the sum of the number of pages of book N and book F. The book which contains 150 pages is not contains maximum number of pages.

Q97. What is the total number of pages of book V and F?
(a) 65 pages
(b) 52 pages
(c) 55 pages
(d) 165 pages
(e) 155 pages

**Q98. How many books contain a greater number of pages than book B?**
(a) Four
(b) One
(c) Two
(d) Three
(e) None of these

Q99. What is the sum of the number of pages of book C, V, F and N?
(a) 570 pages
(b) 470 pages
(c) 350 pages
(d) 430 pages
(e) None of these

Q100. In a certain code "FRIDAY" is coded as "SGJEZB" and "LAPTOP" is coded as "BMQUQP", then what will be the code for the word "CIRCLE"?
(a) JSDSMF
(b) DJDSMF
(c) JDSDFM
(d) DJSMFS
(e) None of these
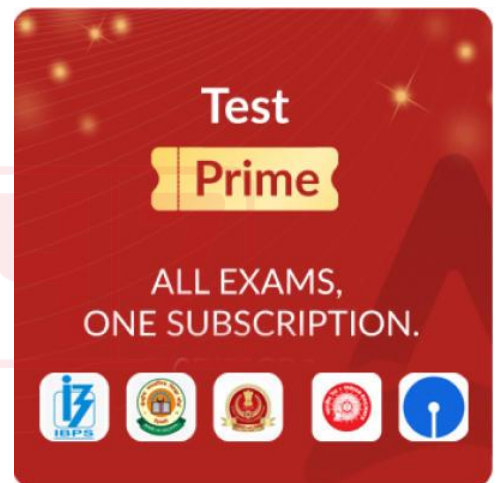
S1. Ans.(c)
Sol. Refer to the lines in the first paragraph which state, "Developing countries were relatively late in starting out on economic development. They may be contributing to emissions now, but that is a weak reason to ask them to stop economic development."

S2. Ans.(c)
Sol. For justification of the answer, refer to the lines in the first paragraph which state, "A farmer in rural Africa can claim that his country has not added to emissions historically, but because of the U.S. or Russia's industrialisation, his agriculture yields are declining. Or an urban worker in South America has to work, without choice, in unforgiving heat wave conditions caused by the developed world's emissions of the past."

S3. Ans.(c)
Sol. This conundrum is proposed in the third paragraph, in the justification of option (c) is given by the entirety of the paragraph, using the example of effects of climate change on Canada.

S4. Ans.(d)
Sol. While options (a) and (b) are correct and can be verified by facts throughout the passage, option (c) is not a valid answer as not all developing countries must lie in cold temperatures and the same argument goes for underdeveloped countries. Also, it has been established that even countries with cold temperature suffer the consequences of climate change. Thus, option (d) is correct.

S5. Ans.(c)
Sol. Option (a) states, among other things, financing healthcare, and this is not mentioned in the passage and thus is wrong.
Option (b) states that the goal is to decrease emissions "to" 45 degrees Celsius while according to the passage, the goal is to decrease the emissions "by" 45 degrees Celsius. Thus, option (b) is wrong.
Option (d) gives the cost estimate of Canada floods till 2022, while in the passage it is mentioned to be the cost by 2050. Thus, option (d) is wrong too.
The only option that is right is option (c) as can be verified by the lines, "The UN Environment Programme's annual emissions gap report for 2022 released late last month said the 'international community is falling far short of the Paris goals, with no credible pathway to 1.5°C in place.'"

S6. Ans.(b)
Sol. Certainty – firm conviction that something is the case.
Dilemma - a difficult situation or problem.
Appeal- make a serious, urgent, or heartfelt request.
Decision- a conclusion or resolution reached after consideration.
Prospect- the possibility or likelihood of some future event occurring.

S7. Ans.(a)
Sol. Spur- to encourage an activity or development
Induce – bring about or give rise to.
Protect- aim to preserve
Prevent- keep (something) from happening.
Dispense- distribute or provide (a service or information) to a number of people.
Provide- make available for use; supply.

S8. Ans.(d)

Sol. Comparatively- to a moderate degree as compared to something else; relatively.

Merely- just; only

Especially- to a great extent; very much.

Repetitively- in a way that involves doing or saying the same thing several times

Disproportionately- to an extent that is too large or too small in comparison with something else.

S9. Ans.(e)

Sol. The sentence is correct as it is and no error is there in any part. Hence, option (e) seems to be the appropriate answer choice.

S10. Ans.(b)

Sol. The error is in part (C) of the sentence. The use of 'been' is wrong since all the other parts of the sentence is in present tense whereas 'been' is a past form of verb. So, 'being' should come in place of it. Hence, option (b) is the correct answer choice.

S11. Ans.(e)

Sol. There is no error in any part of the sentence. Option (e) is, thus, the most appropriate choice.

S12. Ans.(b)

Sol. The error is in part (A) of the sentence. The use of 'for' is wrong because it is used to show a period of time, in the past, present or future. The word 'since' is used to refer to a time (an action that begun in the past and is still continuing)

S13. Ans.(c)

Sol. The error is in part (D) of the sentence. The use of 'triangles' with the article "a" is wrong. Hence, option (c) is the correct answer choice.

S14. Ans.(d)

Sol. The error lies in part D. In this, 'listen' must be changed to 'listened' as the sentence is in past and require past tense (listened) of the given verb.

S15. Ans.(d)

Sol. The correct interchange that would give a meaningful sentence is between the words, 'period' and 'current'. Thus, the statement will be, "The current study showed a predominance of the Omicron BA.2 variant outcompeting the BA.1 over a period in eastern Uttar Pradesh"

S16. Ans.(a)

Sol. The correct interchange that would give a meaningful sentence is between the words 'sanctions' and 'threatening'. Thus, the statement will be, "The US is a particularly vociferous opponent, and is threatening sanctions against European companies involved in the project."

S17. Ans.(a)

Sol. Going through the given sentences, the first sentence should be an introductory line about Green Revolution i.e., (A). The sentence following that should be regarding what the Green Revolution is based on i.e., (C). Then, the next sentence should talk about what all it manifested so (B) should follow (C). The following sentence talks about the ill effects of Green Revolution. Finally, the last sentence talks about more such ill effects like farmlands replacing forests i.e., (E). So, the correct arrangement is ACBDE.

S18. Ans.(a)
Sol. Going through the given sentences, the first sentence should be an introductory line about Green Revolution i.e., (A). The sentence following that should be regarding what the Green Revolution is based on i.e., (C). Then, the next sentence should talk about what all it manifested so (B) should follow (C). The following sentence talks about the ill effects of Green Revolution. Finally, the last sentence talks about more such ill effects like farmlands replacing forests i.e., (E). So, the correct arrangement is ACBDE.

S19. Ans.(b)
Sol. Going through the given sentences, the first sentence should be an introductory line about Green Revolution i.e., (A). The sentence following that should be regarding what the Green Revolution is based on i.e., (C). Then, the next sentence should talk about what all it manifested so (B) should follow (C). The following sentence talks about the ill effects of Green Revolution. Finally, the last sentence talks about more such ill effects like farmlands replacing forests i.e., (E). So, the correct arrangement is ACBDE.

S20. Ans.(e)
Sol. Going through the given sentences, the first sentence should be an introductory line about Green Revolution i.e., (A). The sentence following that should be regarding what the Green Revolution is based on i.e., (C). Then, the next sentence should talk about what all it manifested so (B) should follow (C). The following sentence talks about the ill effects of Green Revolution. Finally, the last sentence talks about more such ill effects like farmlands replacing forests i.e., (E). So, the correct arrangement is ACBDE.

S21. Ans.(e)
Sol. Going through the given sentences, the first sentence should be an introductory line about Green Revolution i.e., (A). The sentence following that should be regarding what the Green Revolution is based on i.e., (C). Then, the next sentence should talk about what all it manifested so (B) should follow (C). The following sentence talks about the ill effects of Green Revolution. Finally, the last sentence talks about more such ill effects like farmlands replacing forests i.e., (E). So, the correct arrangement is ACBDE.

S22. Ans.(a)
Sol. Going through the given sentences, the first sentence should be an introductory line about Green Revolution i.e., (A). The sentence following that should be regarding what the Green Revolution is based on i.e., (C). Then, the next sentence should talk about what all it manifested so (B) should follow (C). The following sentence talks about the ill effects of Green Revolution. Finally, the last sentence talks about more such ill effects like farmlands replacing forests i.e., (E). So, the correct arrangement is ACBDE.

S23. Ans.(d)
Sol. The sentences that have the correct usage of the highlighted word are option (ii) and (i). Insensate means devoid of feeling and consciousness and animation.

S24. Ans.(e)
Sol. 'Ingenious' means clever, original, and inventive. Thus, only option (iii) as the correct usage of the highlighted word.

S25. Ans.(c)
Sol. As the given sentence is talking about people being infected with one or two sub-lineages of Omicron, so on the basis of this information, the correct arrangement of the words would be DBCA.

S26. Ans.(a)
Sol. As the given sentence is talking about the Rajasthan government organising the Mahakumbh of sports, it further states that the state by doing this is not only improving its infrastructure, but also promoting a rich sports culture. So, on the basis of this information, the correct arrangement of the words would be CBAD.

S27. Ans.(c)
Sol. As the given sentence is talking about brain- function decline in people who spend more than six hours on a taxing assignment. So, on the basis of this information, the correct arrangement of the words would be BADC.

S28. Ans.(a)
Sol. As the given sentence is talking about the flood waters entering the tribal peoples' habitations and the tribals taking few more days to return to their houses filled with mud, so on the basis of this given information, the correct arrangement of the words would be DCBA.

S29. Ans.(d)
Sol. As the given sentence is talking about a programme that aims at comprehensive revival of millets in farms to promote climate resilient farming and eliminate micronutrient deficiency's on the basis of the given information, the correct arrangement of the words would be BADC.

S30. Ans.(a)
Sol. The correct rearrangement of the highlighted words is ACBD. Therefore, the sentences will be, "There is a buzz in India about the prospects of the country becoming a permanent member of the United Nations Security Council."

S31. Ans.(e)
Sol.

The ratio of profit share A, B & C
$= 5,000 \times 12 : 7,000 \times 12 : 10,000 \times 12$
$= 5 : 7 : 10$
Let the total profit is $= 100u$
B get profit of total profit for managing the business $= 12u$
Remaining profit divide among their investment $= 100u - 12u = 88u$
A get $= 88u \times \frac{5}{22} = 20u$
B get $= 88u \times \frac{7}{22} = 28u$
C get $= 88 \times \frac{10}{22} = 40u$
B get total profit $= 12u + 28u = 40u$
According to ques.
$60u - 40u = 2500$
$20u = 2500$
$1u = 125$
Profit earned by A $= 20u = 20 \times 125 = 2,500 = $ Rs. 2,500

S32. Ans.(d)
Sol. Let the speed of the train A and B is x m/s, y m/s respectively
So, length of train A $= 25x$ m
And, length of train B $= 32y$ m
Trains running in opposite direction, their relative speed $= (x+y)$ m/sec
According to ques.
$\frac{25x + 32y}{(x + y)} = 28$
$25x + 32y = 28x + 28y$
$3x = 4y$
So, required ratio $= \frac{x}{y} = \frac{4}{3}$

S33. Ans.(e)
Sol.

For Mukesh simple interest = $2Z \times \frac{20}{100} \times X = Z$

$X = \frac{5}{2}$

For Sonu simple interest = $3Z \times \frac{Y}{100} \times X = 2Z$

$3Z \times \frac{Y}{100} \times \frac{5}{2} = 2Z$

$Y = \frac{80}{3}$

Required % = $\frac{\frac{5}{2}}{\frac{80}{3}} \times 100 = \frac{75}{8} = 9.375\%$

S34. Ans.(a)
Sol.

Quantity of alcohol in initial mixture = $250 \times \frac{7}{10} = 175 \ lit.$

Quantity of water in initial mixture = $250 \times \frac{3}{10} = 75 \ lit.$

Total quantity of alcohol in final mixture = $175 + 45 \times \frac{4}{9} = 195 \ lit.$

Total quantity of water in final mixture = $75 + 45 \times \frac{5}{9} = 100 \ lit$

So, required difference = $195 - 100 = 95 \ lit.$

S35. Ans.(c)
Sol.

Let the cost price = 100x

So, marked price = $100x \times \frac{160}{100} = 160x$

Article sold it two consecutive discount 20% and 25%

So, selling price is = $160x \times \frac{80}{100} \times \frac{75}{100} = 96x$

Difference between selling price and cost price is Rs.220

$$100x - 96x = 220$$
$$4x = 220$$
$$x = 55$$

Marked price of an article = $55 \times 160 = Rs.\,8,800$

S36. Ans.(a)
Sol.

I. $3x^2 - 14x + 8 = 0$
$3x^2 - 12x - 2x + 8 = 0$
$3x(x - 4) - 2(x - 4) = 0$
$(3x - 2)(x - 4) = 0$
$x = 4, \frac{2}{3}$

II. $3y^2 - 20y + 12 = 0$
$3y^2 - 18y - 2y + 12 = 0$
$3y(y - 6) - 2(y - 6) = 0$
$(3y - 2)(y - 6) = 0$
$y = 6, \frac{2}{3}$

No relation can be established

S37. Ans.(c)
Sol.
I. $6x^2 + 23x + 21 = 0$
$6x^2 + 9x + 14x + 21 = 0$
$3x(2x + 3) + 7(2x + 3) = 0$
$(3x + 7)(2x + 3) = 0$
$x = \dfrac{-7}{3}, \dfrac{-3}{2}$
II. $3y^2 - 14y - 5 = 0$
$3y^2 - 15y + y - 5 = 0$
$3y(y - 5) + 1(y - 5) = 0$
$(3y + 1)(y - 5) = 0$
$y = \dfrac{-1}{3}, 5$
x<y

S38. Ans.(d)
Sol.
I. $2x^2 - 17x + 36 = 0$
$2x^2 - 8x - 9x + 36 = 0$
$2x(x - 4) - 9(x - 4) = 0$
$(2x - 9)(x - 4) = 0$
$x = \dfrac{9}{2}, 4$
II. $y^2 - y - 12 = 0$
$y^2 + 3y - 4y - 12 = 0$
$y(y + 3) - 4(y + 3) = 0$
$(y + 3)(y - 4) = 0$
$y = -3, 4$
x ≥ y

S39. Ans.(c)
Sol.
I. $x^2 + 14x + 45 = 0$
$x^2 + 9x + 5x + 45 = 0$
$x(x + 9) + 5(x + 9) = 0$
$(x + 9)(x + 5) = 0$
$x = -9, -5$
II. $3y^2 - y - 10 = 0$
$3y^2 - 6y + 5y - 10 = 0$
$3y(y - 2) + 5(y - 2) = 0$
$(3y + 5)(y - 2) = 0$
$y = 2, \dfrac{-5}{3}$
So, y > x

S40. Ans.(a)
Sol.
I. $4x^2 - 17x + 116 = 3x^2 + 4x + \sqrt{64}$
$x^2 - 21x + 108 = 0$
$x^2 - 12x - 9x + 108 = 0$
$x(x - 12) - 9(x - 12) = 0$
$(x - 9)(x - 12) = 0$
$x = 9, 12$
II. $(y + 14)(y - 14) = 60$
$y^2 - 196 = 60$
$y^2 = 256$
$y = 14, -14$
So, no relation

S41. Ans.(d)
Sol.
Number of students in A = $\frac{108 \times 100}{360}$ = 30%

$= \frac{30}{100} \times 15000 = 4500$

Number of girls in A = $4500 \times \frac{30}{100} = 1350$
Number of boys in A = 4500-1350= 3150
Similarly in school D number of students= $\frac{54 \times 100}{360} = 15\%$
$= \frac{15}{100} \times 15000 = 2250$
Number of girls in school D = $\frac{20}{100} \times 2250 = 450$
Number of boys in D = 2250-450= 1800
Total number of boys in A and D = 3150+1800= 4950

S42. Ans.(d)
Sol.
Students in A= $\frac{30}{100} \times 15000 = 4500$
Students in D= $\frac{15}{100} \times 15000 = 2250$
Student in E= $\frac{20}{100} \times 15000 = 3000$
Average= $\frac{4500+2250+3000}{3} = \frac{9750}{3} = 3250$

S43. Ans.(a)
Sol.
Student in B= $15000 \times \frac{10}{100} = 1500$ Fee in B = $1500 \times 50 = 75000$
Student in C= $15000 \times \frac{25}{100} = 3750$ Fee in C = $3750 \times 30 = 112500$
Student in D= $15000 \times \frac{15}{100} = 2250$ Fee in D = $2250 \times 40 = 90000$
Sum of total fee in school B, C and D= 277500

S44. Ans.(c)
Sol. Student studying in A and D together = 4500+2250= 6750
Student studying in B and C together = 1500+3750= 5250
Difference = 6750-5250= 1500

S45. Ans.(e)
Sol.
Student studying in A = 4500
Students studying in C and D= 6000
Average of C and D $= \frac{6000}{2} = 3000$
Required difference= 4500-3000=1500

S46. Ans.(c)
Sol.
Breadth of smaller rectangle $= 93 \times \frac{1}{3} = 31$cm
Length of smaller rectangle $= 152 \times \frac{1}{4} = 38$ cm
Area of smaller rectangle $= 31 \times 38 = 1178$ cm²

S47. Ans.(d)
Sol. Sum of the present age of the family excluding child = 5(36+5)=205 years
Sum of the present age of the family including child = 6×36=216 years
Present age of the child = 216-205=11 years

S48. Ans.(b)
Sol. Let the cost price of the article for Tashu = Rs. 100x
Then, selling price of article by Tashu to Mahi $= 100x \times \frac{130}{100} = $ Rs. 130x
selling price of article by Mahi to Jony $= 130x \times \frac{90}{100} = $ Rs. 117x
selling price of article by Jony to Khushi $= 117x \times \frac{115}{100} = $ Rs. 134.55x
So, 134.55x=2691
Cost price of the article for Tashu $= 100 \times \frac{2691}{134.55} = $ Rs. 2,000

S49. Ans.(e)
Sol.
Let the natural no. $= x, x + 1, x + 2, x + 3, x + 4$
According to ques.
$x + 4 = \frac{140}{100} \times x$
$x = 10$
So, the number are = 10, 11, 12, 13, 14
So, required average = 12

S50. Ans.(b)
Sol.
Ratio of speed of boat in still water to speed of stream = 100% : 40% = 5 : 2
Let the speed of boat in still water and speed of stream be 5s km/hr and 2s km/hr respectively
Downstream speed of boat = $22.4 \times \frac{60}{48} = 28$ km/hr
ATQ –
(5s + 2s) = 28
s = 4 km/hr
So, Upstream speed of boat = $(5 \times 4 - 2 \times 4) = 12$ km/hr
Required ratio = $\frac{\frac{54}{12}}{\frac{210}{28}} = 3 : 5$

S51. Ans.(e)
Sol. Let total amount be Rs. X
Amount received by Deepak = $\left(X \times \frac{40}{100} + 40\right) = Rs. (0.4X + 40)$
Amount received by Shivam = $\left(X \times \frac{25}{100} + 5\right) = Rs. (0.25X + 5)$
And, amount received by Prashant = $\left(X \times \frac{32}{100}\right) = Rs. 0.32X$
ATQ,
$0.4X + 40 + 0.25X + 5 + 0.32X = X$
$X = 1500$ Rs.
Hence, amount received by Shivam = $(0.25X + 5) = Rs.380$

S52. Ans.(b)
Sol. Let efficiency of a man & a woman be m units/day & w units/day respectively.
ATQ,
$14 \times m \times 18 = 21 \times w \times 20$
$\frac{m}{w} = \frac{5}{3}$
Let m & w be 5a & 3a respectively.
Hence, total work = $14 \times 5a \times 18 = 1260a$ units
So, efficiency of a child = $\frac{80}{100} \times 5a = 4a$ units/day
Hence, required time = $\frac{1260a}{4a \times 15} = 21$ days

S53. Ans.(b)
Sol.
Total 38 children weight in the class = $38 \times 15 = 570 \, kg$
Total weight of 4 children who left the class = $40 \times 4 = 160 \, kg$
Total weight of 2 children who joined the class = $35 \times 2 = 70 \, kg$
Average weight of all children in the class $\frac{570-160+70}{38-4+2} = \frac{480}{36}$
$= \frac{40}{3} \, kg$

S54. Ans.(a)
Sol.

Let the speed of bus, train and car be $11x, 25x$ & $7x$

Time taken by train to cover 750 km = $\frac{750}{25x}$

Time taken by bus to cover 440 km = $\frac{440}{11x}$

Time taken by car to cover 210 km = $\frac{210}{7x}$

According to ques.

$\frac{750}{25x} + \frac{440}{11x} + \frac{210}{7x} = 25$

$\frac{30}{x} + \frac{40}{x} + \frac{30}{x} = 25$

$\frac{100}{x} = 25$

$x = 4$

Speed of bus = $11x = 11 \times 4 = 44 \, km/h$

S55. Ans.(a)
Sol.

Let total capacity of tank be 225 units (LCM of 45 & 75)

So, efficiency of pipes A, B & C together = $\frac{225}{45}$ = 5 units/minute

And, efficiency of pipes B & C together = $\frac{225}{75}$ = 3 units/minute

So, efficiency of pipe A = 5 − 3 = 2 units/minute

Now, efficiency of pipe B = $3 \times \frac{200}{300}$ = 2 units/minute

So, required time = $\frac{225}{2+2}$ = 56.25 minutes

S56. Ans.(e)
Sol.

Required percentage = $\frac{550-350}{200} \times 100 = 100\%$

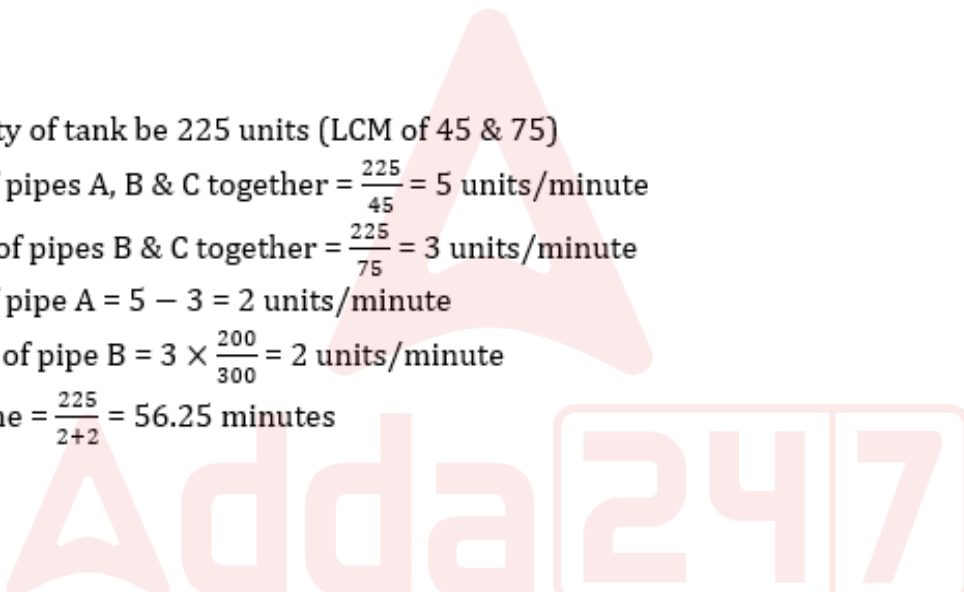**S57. Ans.(d)**
Sol. Required ratio = (400-150)+(250-100) :(150+150)

= (250+150) :300

= 400 :300=4 :3

S58. Ans.(c)
Sol.

Required difference = $\frac{200+350}{2} - \frac{250+200}{2} = 275 - 225 = 50$

S59. Ans.(b)
Sol.

$$\text{Required average} = \frac{(400-150)+(550-350)+(350-150)+(250-100)+(300-200)}{5}$$

$$= \frac{250+200+200+150+100}{5}$$

$$= \frac{900}{5} = 180$$

S60. Ans.(a)
Sol.

Total number of women visiting yoga centre T = $300 - 200 = 100$

Number of unmarried women visiting yoga centre T = $100 \times \frac{40}{100} = 40$

Number of unmarried men visiting in yoga centre T = $200 \times \frac{45}{100} = 90$

Total number of unmarried men and women who visiting yoga Centre T together = 40+90
= 130

S61. Ans.(a)
Sol.

$$\frac{?+4.97}{39.789\% \text{ of } 450.22} \times 5.012^2 = 19.92^2 - 14.897^2$$

$$\frac{?+5}{40\% \text{ of } 450} \times 5^2 = 20^2 - 15^2$$

$$\frac{?+5}{180} \times 25 = 175$$

$$? = 1255$$

S62. Ans.(d)
Sol.

$$\sqrt{24.98} + \sqrt[8]{214} + ? = \frac{2}{5} \times (49.79\% \text{ of } 650.232)$$

$$\sqrt{25} + \sqrt[8]{216} + ? = \frac{2}{5} \times (50\% \text{ of } 650)$$

$$5 + 6 + ? = 130$$

$$? = 119$$

S63. Ans.(c)
Sol. $(680.25+914.95) \div 4.85 = ?+65.22\%$ of 199.67
$(680+915) \div 5 = ?+65\%$ of 200
$319 = ?+130$
$? = 189$

S64. Ans.(e)
Sol.

$$845.023 + 97.98 + 6.81 =? \times \frac{18.73}{23.012}$$

$$845 + 98 + 7 =? \times \frac{19}{23}$$

$$950 =? \times \frac{19}{23}$$

$$? = 1150$$

S65. Ans.(b)
Sol.

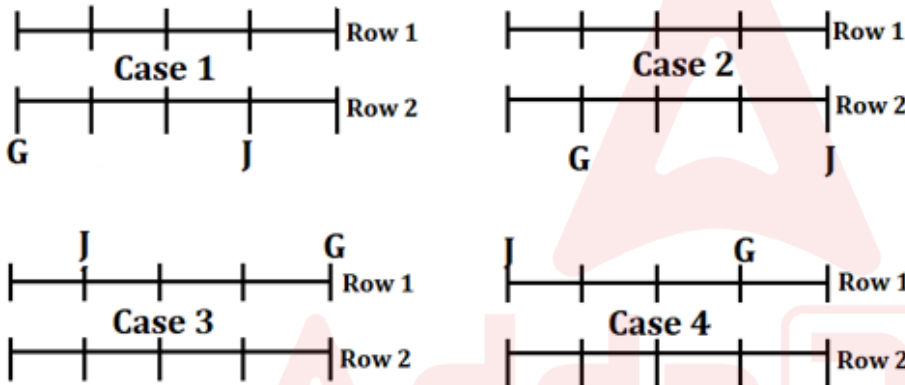$$39.842\% \ of \ \sqrt{3022} + 50.11\% \ of \ 2129.74 =?$$

$$\frac{40}{100} \times \sqrt{3025} + \frac{50}{100} \times 2130 =?$$

$$\frac{40}{100} \times 55 + 1065 =?$$

$$1087 =?$$

S66. Ans.(e)
Sol. J sits 3rd to the right of G and either of them sit at the extreme end of the row. There are four possible cases: -

One person sits between H and I and none of them sit at any extreme end of the row, so they will sit according as per the condition i.e., consecutive named person according to alphabetical order neither sit adjacent nor opposite to each other. B sits 2nd to the right of F who sits diagonally opposite to D, so case 1 and case 3 is ruled out here.

C faces the one who sits 3rd to the left of A who doesn't face south, so case 2 is cancelled here

```
 A    I    B    H    E
 ├────┼────┼────┼────┤ Row 1
        Case 2
 ├────┼────┼────┼────┤ Row 2
 D    G         C    J
```

```
 J    C         G    D
 ├────┼────┼────┼────┤ Row 1
        Case 4
 ├────┼────┼────┼────┤ Row 2
 F    H    B    I    A
```

We know, E is one of the persons thus the final arrangement is: -

```
 J    C    E    G    D
 ├────┼────┼────┼────┤ Row 1

 ├────┼────┼────┼────┤ Row 2
 F    H    B    I    A
```

E sits 2nd to the right of D.

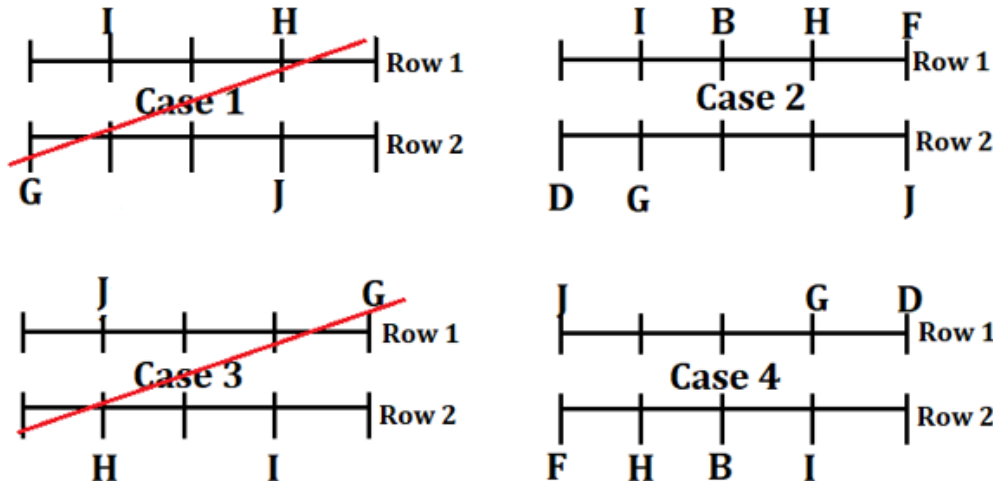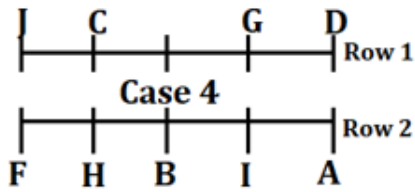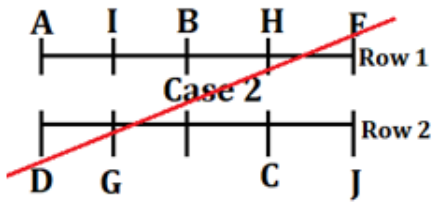## S67. Ans.(b)
Sol. J sits 3rd to the right of G and either of them sit at the extreme end of the row. There are four possible cases: -

```
 ├────┼────┼────┼────┤ Row 1          ├────┼────┼────┼────┤ Row 1
        Case 1                               Case 2
 ├────┼────┼────┼────┤ Row 2          ├────┼────┼────┼────┤ Row 2
 G              J                     G              J
```

```
 J              G                     J              G
 ├────┼────┼────┼────┤ Row 1          ├────┼────┼────┼────┤ Row 1
        Case 3                               Case 4
 ├────┼────┼────┼────┤ Row 2          ├────┼────┼────┼────┤ Row 2
```
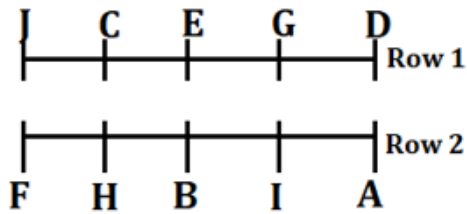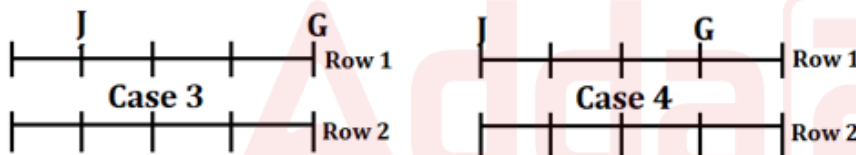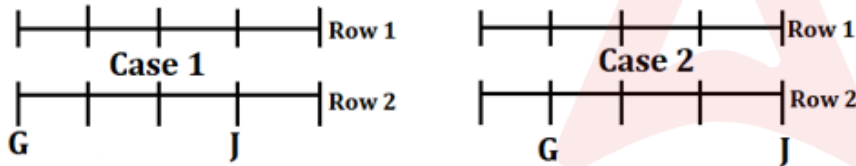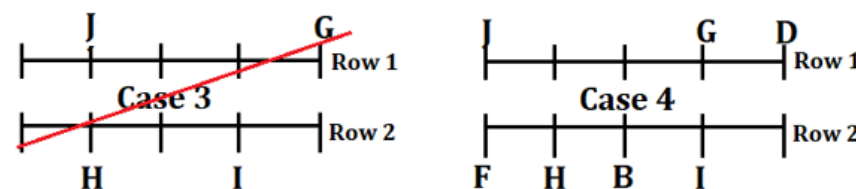
One person sits between H and I and none of them sit at any extreme end of the row, so they will sit according as per the condition i.e., consecutive named person according to alphabetical order neither sit adjacent nor opposite to each other. B sits 2nd to the right of F who sits diagonally opposite to D, so case 1 and case 3 is ruled out here.

```
 I         H                          I    B    H    F
 ├────┼────┼────┼────┤ Row 1          ├────┼────┼────┼────┤ Row 1
        Case 1                               Case 2
 ├────┼────┼────┼────┤ Row 2          ├────┼────┼────┼────┤ Row 2
 G              J                     D    G              J
```

```
 J              G                     J              G    D
 ├────┼────┼────┼────┤ Row 1          ├────┼────┼────┼────┤ Row 1
        Case 3                               Case 4
 ├────┼────┼────┼────┤ Row 2          ├────┼────┼────┼────┤ Row 2
 H         I                          F    H    B    I
```

C faces the one who sits 3rd to the left of A who doesn't face south, so case 2 is cancelled here

---

A   I   B   H   E   Row 1
          Case 2
                            Row 2
D   G   C   J

J   C   G   D   Row 1
          Case 4
                            Row 2
F   H   B   I   A

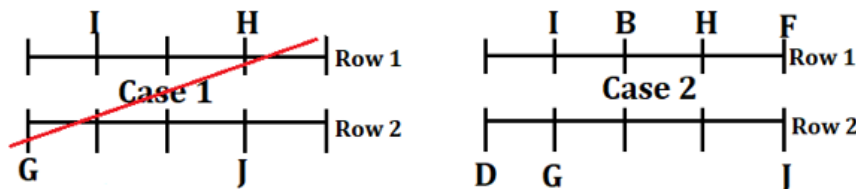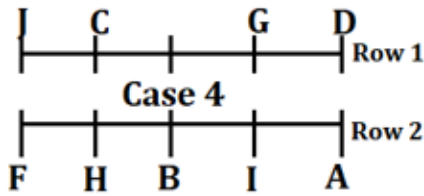We know, E is one of the persons thus the final arrangement is: -

J   C   E   G   D   Row 1

                            Row 2
F   H   B   I   A
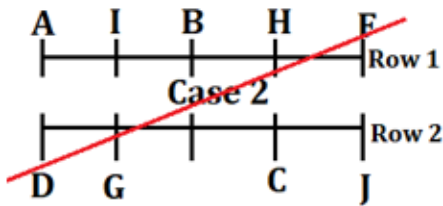
B sits 2nd to the right of F.

S68. Ans.(a)
Sol. J sits 3rd to the right of G and either of them sit at the extreme end of the row. There are four possible cases: -

Row 1   Row 1
     Case 1   Case 2
Row 2   Row 2
G   J   G   J

     J   G   J   G
Row 1   Row 1
     Case 3   Case 4
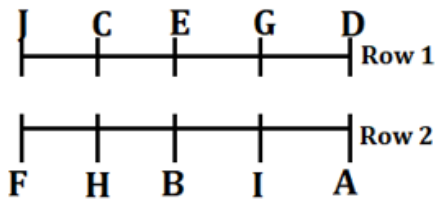Row 2   Row 2

One person sits between H and I and none of them sit at any extreme end of the row, so they will sit according as per the condition i.e., consecutive named person according to alphabetical order neither sit adjacent nor opposite to each other. B sits 2nd to the right of F who sits diagonally opposite to D, so case 1 and case 3 is ruled out here.

     I   H   I   B   H   F
Row 1   Row 1
     Case 1   Case 2
Row 2   Row 2
G   J   D   G   J

     J   G   J   G   D
Row 1   Row 1
     Case 3   Case 4
Row 2   Row 2
     H   I   F   H   B   I

C faces the one who sits 3rd to the left of A who doesn't face south, so case 2 is cancelled here

A   I   B   H   E Row 1

Case 2

Row 2

D G   C   J

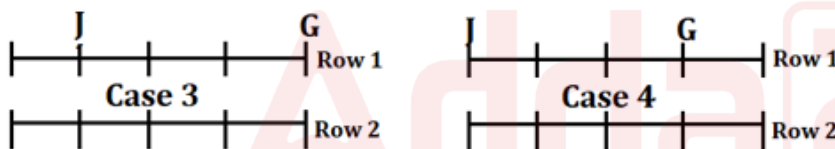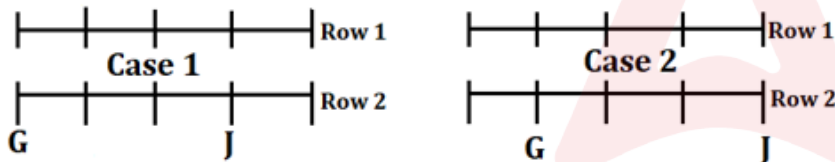J   C   G   D Row 1

Case 4

Row 2

F H B I A

We know, E is one of the persons thus the final arrangement is: -

J   C   E   G   D Row 1

Row 2

F H B I A

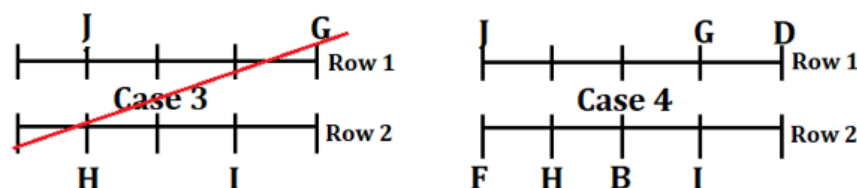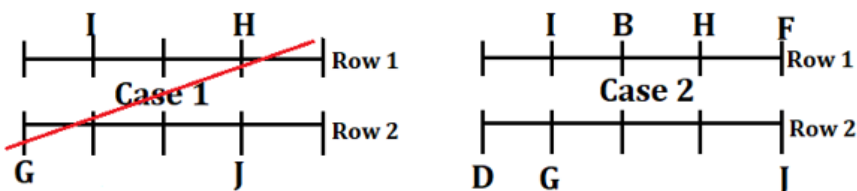Number of persons sit to the left of J is same as the number of persons sit to the right of F.

S69. Ans.(d)
Sol. J sits 3rd to the right of G and either of them sit at the extreme end of the row. There are four possible cases: -

Case 1   Row 1

Row 2

G   J

Case 2   Row 1

Row 2

G   J

J   G Row 1

Case 3   Row 2

J   G Row 1

Case 4   Row 2

One person sits between H and I and none of them sit at any extreme end of the row, so they will sit according as per the condition i.e., consecutive named person according to alphabetical order neither sit adjacent nor opposite to each other. B sits 2nd to the right of F who sits diagonally opposite to D, so case 1 and case 3 is ruled out here.

I   H Row 1

Case 1

Row 2

G   J

I   B H F Row 1

Case 2

Row 2

D G   J

J   G Row 1

Case 3

Row 2

H   I

J   G D Row 1

Case 4

Row 2

F H B I

C faces the one who sits 3rd to the left of A who doesn't face south, so case 2 is cancelled here

Case 2

Case 4
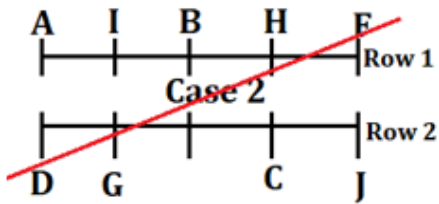
We know, E is one of the persons thus the final arrangement is: -

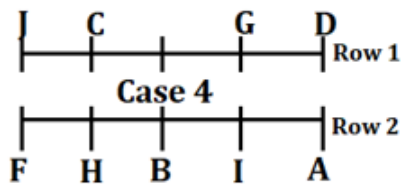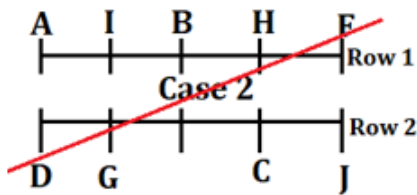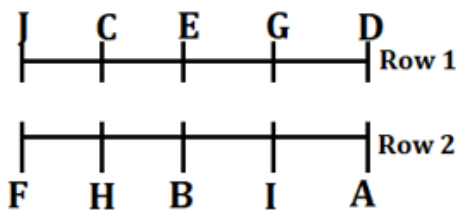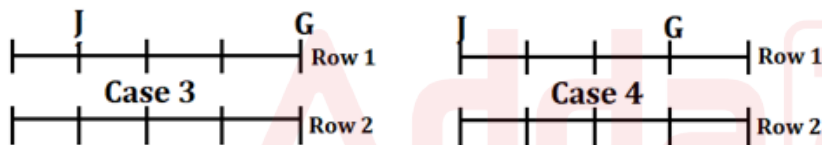One person sits between D and E.

S70. Ans.(b)
Sol. J sits 3rd to the right of G and either of them sit at the extreme end of the row. There are four possible cases: -

One person sits between H and I and none of them sit at any extreme end of the row, so they will sit according as per the condition i.e., consecutive named person according to alphabetical order neither sit adjacent nor opposite to each other. B sits 2nd to the right of F who sits diagonally opposite to D, so case 1 and case 3 is ruled out here.
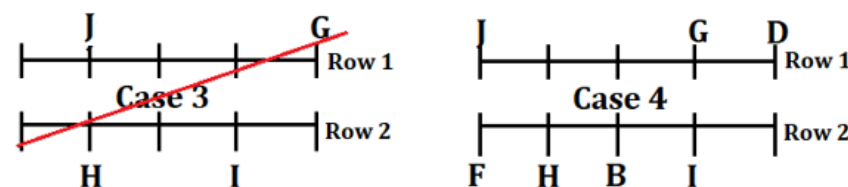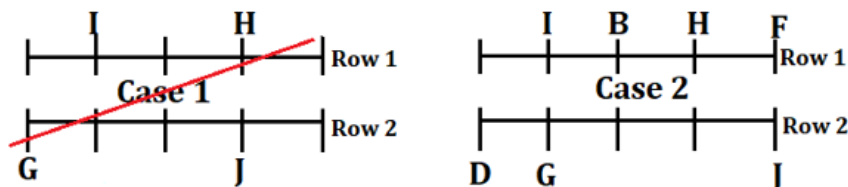
C faces the one who sits 3rd to the left of A who doesn't face south, so case 2 is cancelled here
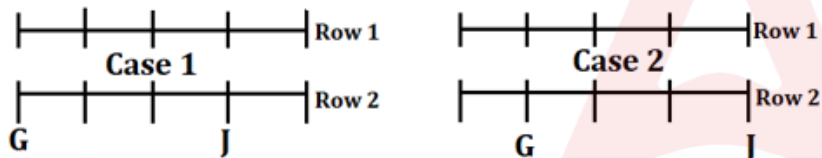
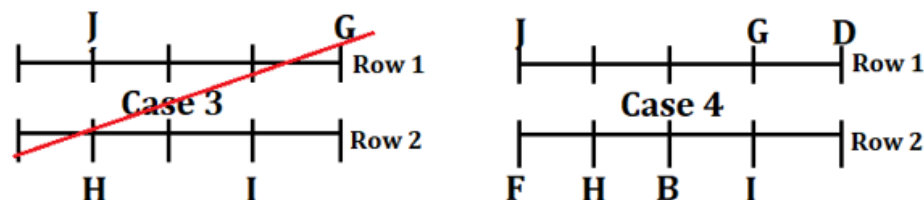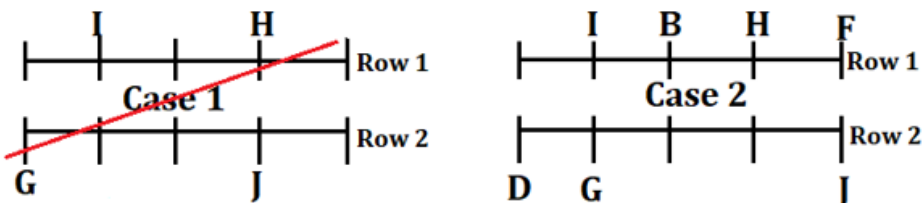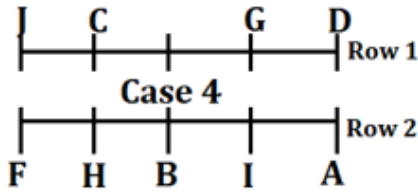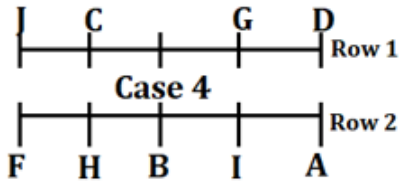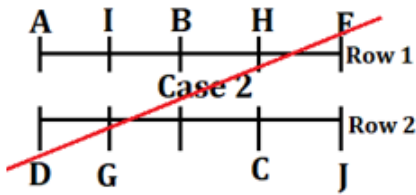We know, E is one of the persons thus the final arrangement is: -
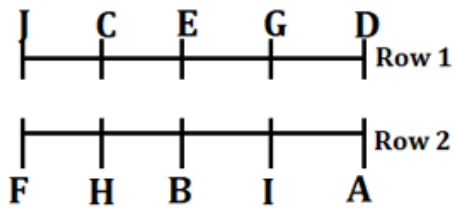
A sits to the right of I.

S71. Ans.(a)
Sol.

Word	Code
University	mn
Published	ie
Exam	as
Important	bn
Time	cd
Calendar	zq
Schedule	st
Student/test	zx/yx

S72. Ans.(d)
Sol.

Word	Code
University	mn
Published	ie
Exam	as
Important	bn
Time	cd
Calendar	zq
Schedule	st
Student/test	zx/yx

S73. Ans.(d)
Sol. G sits 4th to the right of W who sits 3rd to the left of P. The number of persons sit between P and W is same as the number of persons sit to the right of G.
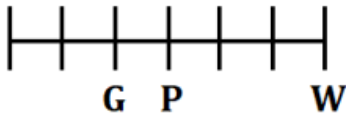
Five persons sit between P and A. Four persons sit to the left of A. E sits 3rd to the left of A. Odd prime number of persons sit between G and H who doesn't sit to the right of A. Six persons sits between E and F. Thus, the final arrangement is: -
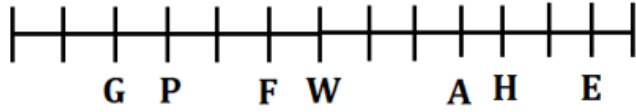
W sits 3rd to the right of A.

S74. Ans.(e)
Sol. G sits 4th to the right of W who sits 3rd to the left of P. The number of persons sit between P and W is same as the number of persons sit to the right of G.
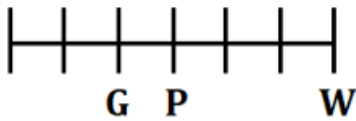
Five persons sit between P and A. Four persons sit to the left of A. E sits 3rd to the left of A. Odd prime number of persons sit between G and H who doesn't sit to the right of A. Six persons sits between E and F. Thus, the final arrangement is: -
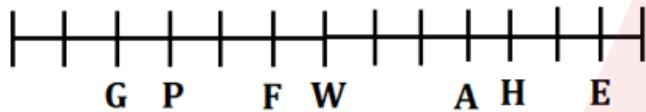
The person sits 2nd from the right end is not known.

S75. Ans.(d)
Sol. G sits 4th to the right of W who sits 3rd to the left of P. The number of persons sit between P and W is same as the number of persons sit to the right of G.

Five persons sit between P and A. Four persons sit to the left of A. E sits 3rd to the left of A. Odd prime number of persons sit between G and H who doesn't sit to the right of A. Six persons sits between E and F. Thus, the final arrangement is: -
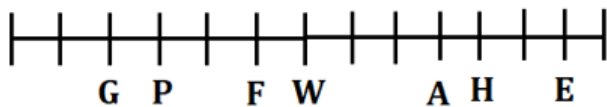
Three persons sit between W and H.

S76. Ans.(c)
Sol. G sits 4th to the right of W who sits 3rd to the left of P. The number of persons sit between P and W is same as the number of persons sit to the right of G.

Five persons sit between P and A. Four persons sit to the left of A. E sits 3rd to the left of A. Odd prime number of persons sit between G and H who doesn't sit to the right of A. Six persons sits between E and F. Thus, the final arrangement is: -

G   P   F   W   A H   E
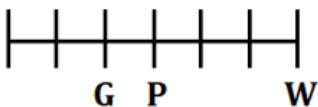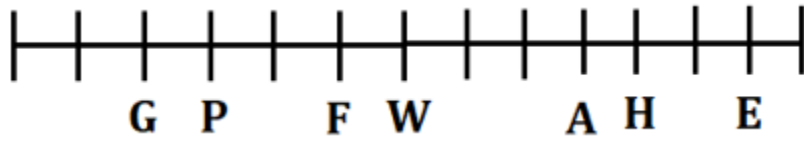
W sits 6th to the right of E.

S77. Ans.(b)
Sol. G sits 4th to the right of W who sits 3rd to the left of P. The number of persons sit between P and W is same as the number of persons sit to the right of G.

G   P   W

Five persons sit between P and A. Four persons sit to the left of A. E sits 3rd to the left of A. Odd prime number of persons sit between G and H who doesn't sit to the right of A. Six persons sits between E and F. Thus, the final arrangement is: -

G   P   F   W   A H   E
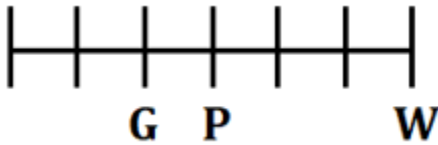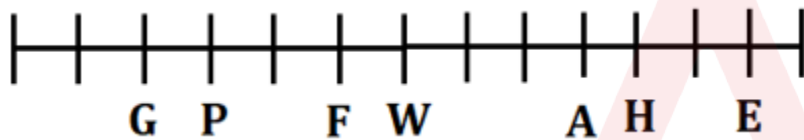
14 persons sit in the row.

S78. Ans.(d)
Sol. Given word – PRUDENTIAL
1st, 2nd, 4th, and 5th letters of word – P, R, D and E respectively
So, DERP is the meaningful word formed.

S79. Ans.(b)
Sol. I: O>X(False)
II: W>L (True)

S80. Ans.(a)
Sol. I: E>M(True)
II: O<Z(False)

S81. Ans.(b)
Sol.
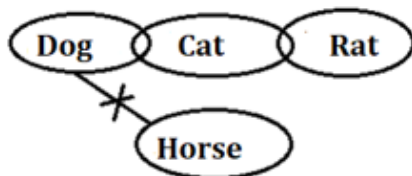
For I: There is no direct relation between Dog and Rat, so in case of possibility it is true.
For II: Some cat is dog but no dog is horse so some cat is not horse is true.

S82. Ans.(e)
Sol.
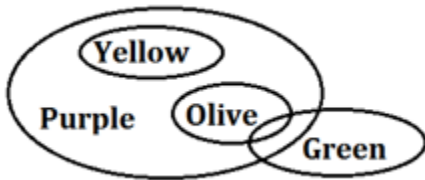
For I: This is the case of only, so yellow is not related to any other element. Hence it is false.
For II: Some purple id green is a definite case, so in case of possibility it is false.

S83. Ans.(c)
Sol.
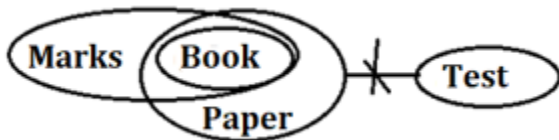
For I: No paper is test is definitely true and some marks is paper, so some marks is not test is true.
For II: No paper is test is definitely true and all books are paper, so no book is test.

S84. Ans.(a)
Sol.
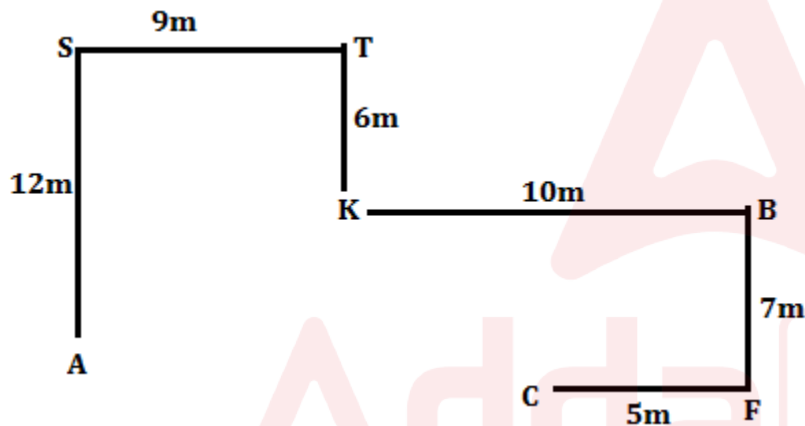
Total distance from point K to point C- 10m+7m+5m=22m

S85. Ans.(c)
Sol.
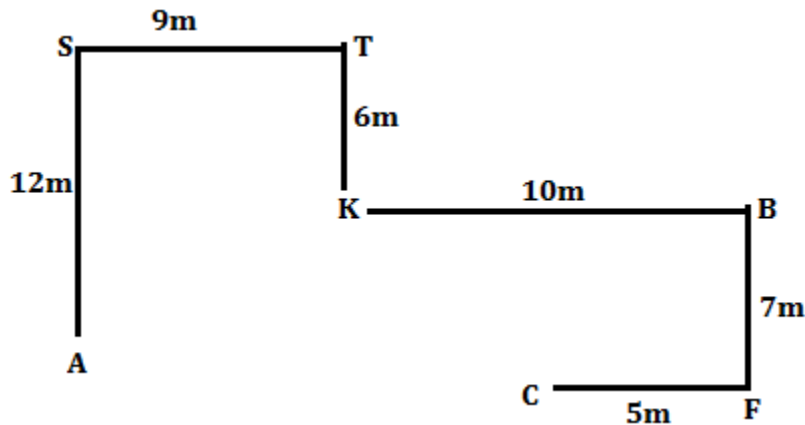
Except in option c, second point is in south east of first point.

S86. Ans.(e)
Sol.
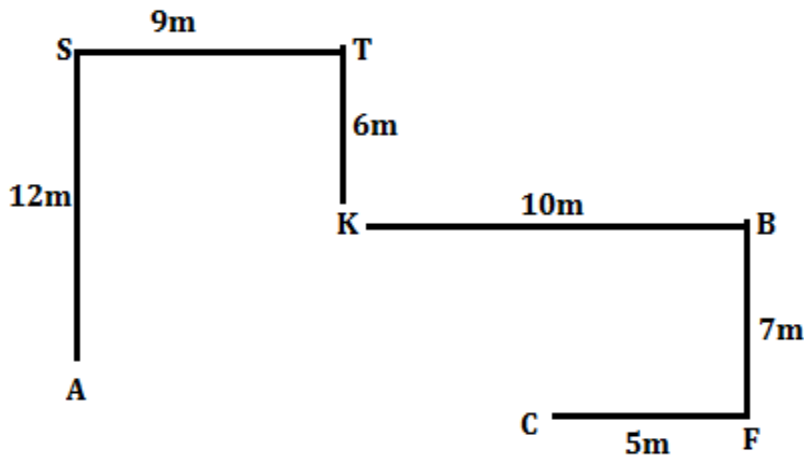
Shortest distance between point S and point K is √117m.

S87. Ans.(a)
Sol. From the given statements, R attends an event on odd date in the month which has even numbers of days. Here we have 2 possible cases. Two persons are attending an event between S and R. No one attend an event between S and W. S and W does not attend event in same month.

Month	Date	Case 1 Person	Case 2 Person
September	11	R	
	28		S
October	11		W
	28	S	
November	11	W	R
	28		
December	11		
	28		

There are as many persons attend event before T is same as attend after Y. V attend event just after Y but not on odd date. Here case 2 is ruled out now.

Month	Date	Case 1 Person	~~Case 2 Person~~
September	11	R	~~T/Y~~
	28	T	~~S~~
October	11		~~W~~
	28	S	
November	11	W	~~R~~
	28		
December	11	Y	
	28	V	~~Y/T~~

U does not attend an event after X. So, the final arrangement is-

Month	Date	Person
September	11	R
	28	T
October	11	U
	28	S
November	11	W
	28	X
December	11	Y
	28	V

W attends the event on 11th of November

S88. Ans.(e)
Sol. From the given statements, R attends an event on odd date in the month which has even numbers of days. Here we have 2 possible cases. Two persons are attending an event between S and R. No one attend an event between S and W. S and W does not attend event in same month.

Month	Date	Case 1 Person	Case 2 Person
September	11	R	
	28		S
October	11		W
	28	S	
November	11	W	R
	28		
December	11		
	28		

There are as many persons attend event before T is same as attend after Y. V attend event just after Y but not on odd date. Here case 2 is ruled out now.

Month	Date	Case 1 Person	~~Case 2~~ ~~Person~~
September	11	R	~~T/Y~~
	28	T	~~S~~
October	11		~~W~~
	28	S	
November	11	W	~~R~~
	28		
December	11	Y	
	28	V	~~Y/T~~

U does not attend an event after X. So, the final arrangement is-

---

Month	Date	Person
September	11	R
	28	T
October	11	U
	28	S
November	11	W
	28	X
December	11	Y
	28	V

R attend immediately event before T

S89. Ans.(d)
Sol. From the given statements, R attends an event on odd date in the month which has even numbers of days. Here we have 2 possible cases. Two persons are attending an event between S and R. No one attend an event between S and W. S and W does not attend event in same month.

Month	Date	Case 1 Person	Case 2 Person
September	11	R	
	28		S
October	11		W
	28	S	
November	11	W	R
	28		
December	11		
	28		

There are as many persons attend event before T is same as attend after Y. V attend event just after Y but not on odd date. Here case 2 is ruled out now.

Month	Date	Case 1 Person	~~Case 2~~ ~~Person~~
September	11	R	~~T/Y~~
	28	T	~~S~~
October	11		~~W~~
	28	S	
November	11	W	~~R~~
	28		
December	11	Y	
	28	V	~~Y/T~~

U does not attend an event after X. So, the final arrangement is-

---

Month	Date	Person
September	11	R
	28	T
October	11	U
	28	S
November	11	W
	28	X
December	11	Y
	28	V

Two persons attend an event between V and W

S90. Ans.(d)
Sol. From the given statements, R attends an event on odd date in the month which has even numbers of days. Here we have 2 possible cases. Two persons are attending an event between S and R. No one attend an event between S and W. S and W does not attend event in same month.

Month	Date	Case 1 Person	Case 2 Person
September	11	R	
	28		S
October	11		W
	28	S	
November	11	W	R
	28		
December	11		
	28		

There are as many persons attend event before T is same as attend after Y. V attend event just after Y but not on odd date. Here case 2 is ruled out now.

Month	Date	Case 1 Person	~~Case 2~~ ~~Person~~
September	11	R	~~T/Y~~
	28	T	~~S~~
October	11		~~W~~
	28	S	
November	11	W	~~R~~
	28		
December	11	Y	
	28	V	~~Y/T~~

U does not attend an event after X. So, the final arrangement is-

Month	Date	Person
September	11	R
	28	T
October	11	U
	28	S
November	11	W
	28	X
December	11	Y
	28	V

S goes in October month

S91. Ans.(a)
Sol. From the given statements, R attends an event on odd date in the month which has even numbers of days. Here we have 2 possible cases. Two persons are attending an event between S and R. No one attend an event between S and W. S and W does not attend event in same month.

Month	Date	Case 1 Person	Case 2 Person
September	11	R	
	28		S
October	11		W
	28	S	
November	11	W	R
	28		
December	11		
	28		

There are as many persons attend event before T is same as attend after Y. V attend event just after Y but not on odd date. Here case 2 is ruled out now.

Month	Date	Case 1 Person	~~Case 2~~ ~~Person~~
September	11	R	~~T/Y~~
	28	T	~~S~~
October	11		~~W~~
	28	S	
November	11	W	~~R~~
	28		
December	11	Y	
	28	V	~~Y/T~~

U does not attend an event after X. So, the final arrangement is-

Month	Date	Person
September	11	R
	28	T
October	11	U
	28	S
November	11	W
	28	X
December	11	Y
	28	V

S and U attend event in the same month

S92. Ans.(d)
Sol. From the given statements, more than three floors gap between Q and U both of them live on even numbered floors. R lives below Q and no one live between them. Here we have 3 possible cases.

Floor	Case 1 Person	Case 2 Person	Case 3 Person
9			
8	Q	U	Q
7	R		-----
6			R
5			
4			
3			
2	U	Q	U
1		R	

The number of persons live above R is same as the number of persons live below T. The number of persons live between R and T is half than the number of persons live below V. From These conditions case 2 and case 3 are ruled out now. R does not live on even numbered floor.

Floor	Case 1 Person	~~Case 2~~ ~~Person~~	~~Case 3~~ ~~Person~~
9		~~T~~	
8	Q	~~U~~	~~Q~~
7	R	~~----/~~	-----
6	----/V/	~~----/~~	~~R~~
5	----/V/	~~----/~~	
4	----/	~~----/~~	
3	T	~~----/~~	~~T~~
2	U	~~Q~~	~~U~~
1		~~R~~	

S lives three floors above W and lives on an even numbered floor. Odd numbered floors gap between P and V. So, the final arrangement is-

Floor	Person
9	P
8	Q
7	R
6	-------
5	V
4	S
3	T
2	U
1	W

3 persons live between R and U

S93. Ans.(c)
Sol. From the given statements, more than three floors gap between Q and U both of them live on even numbered floors. R lives below Q and no one live between them. Here we have 3 possible cases.

Floor	Case 1 Person	Case 2 Person	Case 3 Person
9			
8	Q	U	Q
7	R		-----
6			R
5			
4			
3			
2	U	Q	U
1		R	

The number of persons live above R is same as the number of persons live below T. The number of persons live between R and T is half than the number of persons live below V. From These conditions case 2 and case 3 are ruled out now. R does not live on even numbered floor.

Floor	Case 1 Person	Case 2 Person	Case 3 Person
9		T	
8	Q	U	Q
7	R	----/	------
6	----/V/	----/	R
5	----/V/	----/	
4	----/	----/	
3	T	----/	T
2	U	Q	U
1		R	

S lives three floors above W and lives on an even numbered floor. Odd numbered floors gap between P and V. So, the final arrangement is-

Floor	Person
9	P
8	Q
7	R
6	-------
5	V
4	S
3	T
2	U
1	W

Only option (c) is true

S94. Ans.(e)
Sol. From the given statements, more than three floors gap between Q and U both of them live on even numbered floors. R lives below Q and no one live between them. Here we have 3 possible cases.

Floor	Case 1 Person	Case 2 Person	Case 3 Person
9			
8	Q	U	Q
7	R		-----
6			R
5			
4			
3			
2	U	Q	U
1		R	

The number of persons live above R is same as the number of persons live below T. The number of persons live between R and T is half than the number of persons live below V. From These conditions case 2 and case 3 are ruled out now. R does not live on even numbered floor.

Floor	Case 1 Person	Case 2 Person	Case 3 Person
9		T̶	
8	Q	U̶	Q̶
7	R	----/	-----
6	----/V/	----/	R̶
5	----/V/	----/	
4	----/	----/	
3	T	----/	T̶
2	U	Q̶	U̶
1		R̶	

S lives three floors above W and lives on an even numbered floor. Odd numbered floors gap between P and V. So, the final arrangement is-

Floor	Person
9	P
8	Q
7	R
6	-------
5	V
4	S
3	T
2	U
1	W

Except Q all of them lives on odd numbered floor

S95. Ans.(b)
Sol. From the given statements, more than three floors gap between Q and U both of them live on even numbered floors. R lives below Q and no one live between them. Here we have 3 possible cases.

Floor	Case 1 Person	Case 2 Person	Case 3 Person
9			
8	Q	U	Q
7	R		-----
6			R
5			
4			
3			
2	U	Q	U
1		R	

The number of persons live above R is same as the number of persons live below T. The number of persons live between R and T is half than the number of persons live below V. From These conditions case 2 and case 3 are ruled out now. R does not live on even numbered floor.

Floor	Case 1 Person	~~Case 2 Person~~	~~Case 3 Person~~
9		~~T~~	
8	Q	~~U~~	~~Q~~
7	R	~~----/~~	~~-----~~
6	----/V/	~~----/~~	~~R~~
5	----/V/	~~----/~~	
4	----/	~~----/~~	
3	T	~~----/~~	~~T~~
2	U	~~Q~~	~~U~~
1		~~R~~	

S lives three floors above W and lives on an even numbered floor. Odd numbered floors gap between P and V. So, the final arrangement is-

Floor	Person
9	P
8	Q
7	R
6	-------
5	V
4	S
3	T
2	U
1	W

The number of floors gap between V and U is same as the number of persons live between S and Q.

S96. Ans.(c)
Sol. From the given statements, more than three floors gap between Q and U both of them live on even numbered floors. R lives below Q and no one live between them. Here we have 3 possible cases.

Floor	Case 1 Person	Case 2 Person	Case 3 Person
9			
8	Q	U	Q
7	R		-----
6			R
5			
4			
3			
2	U	Q	U
1		R	

The number of persons live above R is same as the number of persons live below T. The number of persons live between R and T is half than the number of persons live below V. From These conditions case 2 and case 3 are ruled out now. R does not live on even numbered floor.

Floor	Case 1 Person	~~Case 2~~ ~~Person~~	~~Case 3~~ ~~Person~~
9		~~T~~	
8	Q	~~U~~	~~Q~~
7	R	~~----/~~	~~-----~~
6	----/V/	~~----/~~	~~R~~
5	----/V/	~~----/~~	
4	----/	~~----/~~	
3	T	~~----/~~	~~T~~
2	U	~~Q~~	~~U~~
1		~~R~~	

S lives three floors above W and lives on an even numbered floor. Odd numbered floors gap between P and V. So, the final arrangement is-

Floor	Person
9	P
8	Q
7	R
6	-------
5	V
4	S
3	T
2	U
1	W

Option (c) is correct.

S97. Ans.(d)
Sol. From the given statements, Book N contains least pages of odd prime numbered pages but less than 7. Here we have 2 possible cases that book N contains either 3 or 5 pages.

$$ \underline{\quad} > \underline{\quad} > \underline{\quad} > \underline{\quad} > \underline{\quad} > \frac{N}{5} \quad \textbf{Case 1} $$

$$ \underline{\quad} > \underline{\quad} > \underline{\quad} > \underline{\quad} > \underline{\quad} > \frac{N}{3} \quad \textbf{Case 2} $$

Book B contains just least pages than book F which contains thrice number of pages than book N. Which means book F contains either 15 or 9 pages. Number of books between book N and book F is same as the number of books between book C and book F.

$$ \underline{\quad} > \frac{C}{\quad} > \underline{\quad} > \frac{F}{15} > \frac{B}{\quad} > \frac{N}{5} \quad \textbf{Case 1} $$

$$ \underline{\quad} > \frac{C}{\quad} > \underline{\quad} > \frac{F}{9} > \frac{B}{\quad} > \frac{N}{3} \quad \textbf{Case 2} $$

The book which contains just more pages than book V contains the pages which is square of the sum of the number of pages of book N and book F.

$$ \underline{\quad} > \frac{C}{400} > \frac{V}{\quad} > \frac{F}{15} > \frac{B}{\quad} > \frac{N}{5} \quad \textbf{Case 1} $$

$$ \underline{\quad} > \frac{C}{144} > \frac{V}{\quad} > \frac{F}{9} > \frac{B}{\quad} > \frac{N}{3} \quad \textbf{Case 2} $$

The book which contains 150 pages is not contains maximum number of pages. Here case 2 is ruled out now.

$$ \underline{\quad} > \frac{C}{400} > \frac{V}{150} > \frac{F}{15} > \frac{B}{\quad} > \frac{N}{5} \quad \textbf{Case 1} $$

$$ \underline{\quad} > \frac{C}{\cancel{144}} > \frac{V}{\quad} > \cancel{\frac{F}{9} > \frac{B}{\quad} > \frac{N}{3}} \quad \textbf{Case 2} $$

As we know one book remains which is book D. So, the final arrangement is-

$$\frac{D}{} > \frac{C}{400} > \frac{V}{150} > \frac{F}{15} > \frac{B}{} > \frac{N}{5}$$

Total number of pages of book V and F = 150 + 15 = 165

S98. Ans.(a)
Sol. From the given statements, Book N contains least pages of odd prime numbered pages but less than 7. Here we have 2 possible cases that book N contains either 3 or 5 pages.

$$\frac{}{} > \frac{}{} > \frac{}{} > \frac{}{} > \frac{}{} > \frac{N}{5} \quad \textbf{Case 1}$$

$$\frac{}{} > \frac{}{} > \frac{}{} > \frac{}{} > \frac{}{} > \frac{N}{3} \quad \textbf{Case 2}$$

Book B contains just least pages than book F which contains thrice number of pages than book N. Which means book F contains either 15 or 9 pages. Number of books between book N and book F is same as the number of books between book C and book F.

$$\frac{}{} > \frac{C}{} > \frac{}{} > \frac{F}{15} > \frac{B}{} > \frac{N}{5} \quad \textbf{Case 1}$$

$$\frac{}{} > \frac{C}{} > \frac{}{} > \frac{F}{9} > \frac{B}{} > \frac{N}{3} \quad \textbf{Case 2}$$

The book which contains just more pages than book V contains the pages which is square of the sum of the number of pages of book N and book F.

$$\frac{}{} > \frac{C}{400} > \frac{V}{} > \frac{F}{15} > \frac{B}{} > \frac{N}{5} \quad \textbf{Case 1}$$

$$\frac{}{} > \frac{C}{144} > \frac{V}{} > \frac{F}{9} > \frac{B}{} > \frac{N}{3} \quad \textbf{Case 2}$$

The book which contains 150 pages is not contains maximum number of pages. Here case 2 is ruled out now.

$$\frac{}{} > \frac{C}{400} > \frac{V}{150} > \frac{F}{15} > \frac{B}{} > \frac{N}{5} \quad \textbf{Case 1}$$

$$\frac{}{} > \frac{C}{144} > \frac{V}{} > \frac{F}{9} > \frac{B}{} > \frac{N}{3} \quad \textbf{Case 2}$$

As we know one book remains which is book D. So, the final arrangement is-

$$\frac{D}{} > \frac{C}{400} > \frac{V}{150} > \frac{F}{15} > \frac{B}{} > \frac{N}{5}$$

Four books contain a greater number of pages than book B

S99. Ans.(a)
Sol. From the given statements, Book N contains least pages of odd prime numbered pages but less than 7. Here we have 2 possible cases that book N contains either 3 or 5 pages.

$$\underline{\quad} > \underline{\quad} > \underline{\quad} > \underline{\quad} > \underline{\quad} > \frac{N}{5} \quad \textbf{Case 1}$$

$$\underline{\quad} > \underline{\quad} > \underline{\quad} > \underline{\quad} > \underline{\quad} > \frac{N}{3} \quad \textbf{Case 2}$$

Book B contains just least pages than book F which contains thrice number of pages than book N. Which means book F contains either 15 or 9 pages. Number of books between book N and book F is same as the number of books between book C and book F.

$$\underline{\quad} > \frac{C}{\quad} > \underline{\quad} > \frac{F}{15} > \frac{B}{\quad} > \frac{N}{5} \quad \textbf{Case 1}$$

$$\underline{\quad} > \frac{C}{\quad} > \underline{\quad} > \frac{F}{9} > \frac{B}{\quad} > \frac{N}{3} \quad \textbf{Case 2}$$

The book which contains just more pages than book V contains the pages which is square of the sum of the number of pages of book N and book F.

$$\underline{\quad} > \frac{C}{400} > \frac{V}{\quad} > \frac{F}{15} > \frac{B}{\quad} > \frac{N}{5} \quad \textbf{Case 1}$$

$$\underline{\quad} > \frac{C}{144} > \frac{V}{\quad} > \frac{F}{9} > \frac{B}{\quad} > \frac{N}{3} \quad \textbf{Case 2}$$

The book which contains 150 pages is not contains maximum number of pages. Here case 2 is ruled out now.

$$\underline{\quad} > \frac{C}{400} > \frac{V}{150} > \frac{F}{15} > \frac{B}{\quad} > \frac{N}{5} \quad \textbf{Case 1}$$

$$\underline{\quad} > \frac{C}{\cancel{144}} > \frac{V}{\quad} > \cancel{\frac{F}{9}} > \cancel{\frac{B}{\quad}} > \frac{N}{3} \quad \textbf{Case 2}$$

As we know one book remains which is book D. So, the final arrangement is-

$$\frac{D}{\quad} > \frac{C}{400} > \frac{V}{150} > \frac{F}{15} > \frac{B}{\quad} > \frac{N}{5}$$

sum of the number of pages of book C, V, F and N = 400 + 150 + 15 + 5 = 570 pages

S100. Ans.(c)
Sol.

C I R C L E
× | | ×
+(1 1 1 1 1 1)

J D S D F M

"JDSDFM" is the code for the word **"CIRCLE"**