Directions (1-7): Read the following passage and answer the following questions. Some words are highlighted to help you answer some of the questions.

The Panchayati Raj, first adopted by Nagaur in Rajasthan on October 2, 1959, has expanded vastly. There are now 2,60,512 Panchayati Raj Institutions (PRIs) represented by about 31 lakh elected members across India. This system of local self-governance, where people in the villages participate in the decision-making process, is the backbone of democracy. The People's Plan Campaign and Vibrant Gram Sabha Dashboard, rolled out this year, aspire to strengthen the Panchayati Raj system by making gram sabhas more vibrant. Unlike other disasters like earthquakes, COVID-19 is an unusual crisis as it is long-drawn and affects people everywhere. When the traditional top-down disaster response system was compromised during the bad months of the pandemic, it was PRIs that played a remarkable role. They helped reduce risks, responded swiftly and thus helped people recover quickly. The PRIs provided essential leadership at the local level. They performed both regulatory and welfare functions. For instance, during the nationwide lockdown, PRIs set up containment zones, arranged transport, identified buildings for quarantining people and provisioned food for the incoming migrants. Moreover, effective implementation of welfare schemes like MGNREGA and the National Rural Livelihood Mission quickened the pace of recovery while ensuring support to the vulnerable population.

Gram sabhas act as a sounding board for diverse ideas and opinions. They provide a platform to build consensus and make resolutions in the community's interest. During the pandemic, gram sabhas resolved to adhere to COVID-19 norms. In addition, regular engagement with frontline workers like ASHA workers and Anganwadi workers through committees bridged the trust gap between the community and the officials. By representing diverse communities, PRIs mobilize them effectively. During the COVID-19 crisis, they organized community-based surveillance systems involving village elders, the youth and self-help groups (SHGs) to keep a strict vigil in quarantine centers and monitor symptoms in households. More recently, their role in mobilizing citizens for COVID-19 vaccination is exemplary. The Yokohama strategy during the International Decade for Natural Disaster Reduction in May 1994 emphasized that it is important to focus on disaster prevention, mitigation and preparedness rather than disaster response alone, to reduce vulnerability. In this respect, certain initiatives can be taken to build the capacity of PRIs.

One, it is crucial to include disaster management chapters in Panchayat Raj Acts and make disaster planning and spending part of Panchayati Raj development plans and local-level committees. This will ensure citizen-centric mapping and planning of resources. Various insurance products customized to local needs will build the financial **resilience** of the community. Two, conducting regular location-specific training programs for the community and organizing platforms for sharing best practices will strengthen individual and institutional capacities. Assigning roles to individual members and providing them with the necessary skills can make such programs more meaningful. Three, since the community is usually the first responder in case of a disaster, community-based disaster management plans would help. These would provide a strategy for resource utilization and maintenance during a disaster. Moreover, financial contributions from the community should be encouraged through the establishment of community disaster funds in all gram panchayats. It is imperative to make disaster resilience an inherent part of the community culture now more than ever.

Q1. What role did Panchayati Raj Institutions (PRIs) play during the pandemic?
(a) They aided in mitigating risk, quick response, and helping patients in recovering.
(b) At the local level, the PRIs provided critical leadership.
(c) They were in charge of both regulatory and community well-being functions.
(d) They established containment zones and prepared food for the incoming migrants.
(e) All of these

Q2. Which of the following statements about the Panchayati Raj System is/are correct?
(i) The Panchayati Raj has risen exponentially since its inception in 1959.
(ii) The Panchayati Raj System is a form of local self-government.
(iii) Leaders initiate the decision-making process in the Panchayati Raj System.
(a) Only (i) and (iii)
(b) Only (ii)
(c) Only (i) and (ii)
(d) All of these
(e) Only (i)

Q3. How do Panchayati Raj Institutions (PRIs) seek to empower diverse communities?
(a) By representing as a source of support for differing ideas and points of view.
(b) By representing diverse communities and bridging the trust gap of them with officials.
(c) By providing a forum for reaching consensus and making decisions in the best interests of the community.
(d) All of these
(e) Only a and c

Q4. Why is it vital to include disaster management chapters in the Panchayati Raj Act as per the information provided in the given passage?
(a) To tailor various insurance products to local needs in order to shore up the public's financial trends.
(b) To ensure citizen-centric mapping and to undertake community-wide training programs on a routine basis.
(c) To assign roles to individuals and providing them with the necessary expertise.
(d) Only a and b
(e) Only b and c

Q5. Which of the following was/were the result(s) of the Yokohama strategy during the International Decade for Natural Disaster Reduction?
(a) It stressed the importance of disaster prevention and mitigation.
(b) It highlighted the importance of readiness over disaster response alone.
(c) To reduce vulnerability, it emphasized only quick decisions in disaster response.
(d) Only a and b
(e) Only a and c

Q6. Why is the Panchayati Raj System referred to as the "backbone of democracy"?
(a) Because people in the villages are involved in decision-making.
(b) Because Panchayati Raj represents approximately 31 lakh elected members throughout India.
(c) Because Panchayati Raj serves as the primary support system for local government.
(d) Because Panchayati Raj Institutions (PRIs) aid in risk reduction and rapid response.
(e) None of these

Q7. Which of the following is/are the synonym(s) of the word **'RESILIENCE'**, as highlighted in the given passage?
(a) Strength
(b) Toughness
(c) Hardiness
(d) Only a and b
(e) All of these

Directions (8-10): In the following questions, a sentence is given with four highlighted words. Choose the option reflecting the word which is either misspelled or grammatically incorrect. If all the highlighted words are correct, choose option (e) i.e. "all are correct" as your answer choice.

Q8. The video of the vehicle that **ploughed** through the peaceful **procesion** of farmers in the Lakhimpur Kheri **district** is not very clear on the **identity** of the driver.
(a) ploughed
(b) procesion
(c) district
(d) identity
(e) All are correct

Q9. The **face-of** between the Indian and Chinese troops **happened** last week along the Line of Actual Control after a few Chinese **troops** crossed the border in Arunachal Pradesh's Tawang and were **detained** by Indian soldiers.
(a) face-of
(b) happened
(c) troops
(d) detained
(e) All are correct

Q10. Chaos **unfolded** this morning at the Mumbai airport which saw a **massively** rush of passengers who got **stuck** in long queues with many **missing** flights.
(a) unfolded
(b) massively
(c) stuck
(d) missing
(e) All are correct

Directions (11-15): In the questions given below few sentences are given which are grammatically correct and meaningful. Connect them by the word given below the statements in the best possible way without changing the intended meaning. Choose your answer accordingly from the options to form a correct, coherent sentence.

Q11. (I) It was raining heavily.
(II) We enjoyed the festival.
(a) despite
(b) because
(c) if
(d) since
(e) under

Q12. (I) I have only read that one page.
(II) I cannot understand it in the correct context.
(a) even
(b) having
(c) over
(d) since
(e) although

Q13. (I) The world is full of suffering.
(II) There are millions of ways to keep us smiling.
(a) provided that
(b) before
(c) although
(d) since
(e) because

Q14. (I) You may keep the book a further week.
(II) No one else should require it.
(a) having
(b) provided that
(c) even though
(d) since
(e) though

Q15. (I) You do hard work at every stage of life.
(II) You can't succeed in life.
(a) unlike
(b) over
(c) there
(d) unless
(e) although

Directions (16-20): In each of the given questions, a statement is divided into four parts. Identify the part of the statement which contains a grammatical error. If the given statement is correct, mark option 'e', no error, as your answer.

Q16. Protests have rocked Kashmir after **(A)/** back-to-back killings of teachers at a school **(B)/** and a prominent pharmacist **(C)/** by the Kashmiri Pandit community **(D)**.
(a) C
(b) D
(c) B
(d) A
(e) no error

Q17. Violence broken out in Lakhimpur Kheri **(A)/** this weekend after a convoy **(B)/** of cars rammed into a **(C)/** group of farmers holding a protest **(D)**.
(a) C
(b) D
(c) B
(d) A
(e) no error

Q18. The Mumbai International Airport witnessed chaos **(A)/** and a massive rush of passengers on **(B)/** Friday morning as people left the city **(C)/** for their hometowns for the Navratri festival **(D)**.
(a) A
(b) D
(c) B
(d) C
(e) no error

Q19. In a sign of souring of relations among **(A)/** the Congress and Prashant Kishor, the **(B)/** election strategist on Friday took a **(C)/** dig at the Congress's revival prospects **(D)**.
(a) C
(b) D
(c) B
(d) A
(e) no error

Q20. The UK government had faced intense **(A)/** backlash from its refusal to recognize visitors **(B)/** as vaccinated unless they received **(C)/** their shots in a handful of selected countries **(D)**.
(a) C
(b) D
(c) B
(d) A
(e) no error

Directions (21-25): In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

Q21. Seven years after launching his government's _____**(21)**_____ program, Prime Minister Narendra Modi has announced the second phase of Swachh Bharat Mission-Urban (SBM-U) and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), with a fresh _____**(22)**_____ to make India's cities clean. For all the attention it has received, the goal of scientific waste management and full sanitation that Mahatma Gandhi _____**(23)**_____ even a century ago remains largely aspirational today, and the recent lament of Principal Economic Adviser Sanjeev Sanyal on dirty, dysfunctional cities drives home the point. SBM-U 2.0, with a ₹1.41-lakh crore outlay, aims to focus on garbage-free cities and urban grey and black water _____**(24)**_____ in places not covered by AMRUT. The issue of capability and governance underscores the challenge — of being able to _____**(25)**_____ only about one lakh tonnes of solid waste per day against 1.4 lakh tonnes generated — to transition to a circular economy that treats solid and liquid waste as a resource.
(a) tractable
(b) laconic
(c) enraged
(d) flagship
(e) abandon

Q22. Seven years after launching his government's _____**(21)**_____ program, Prime Minister Narendra Modi has announced the second phase of Swachh Bharat Mission-Urban (SBM-U) and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), with a fresh _____**(22)**_____ to make India's cities clean. For all the attention it has received, the goal of scientific waste management and full sanitation that Mahatma Gandhi _____**(23)**_____ even a century ago remains largely aspirational today, and the recent lament of Principal Economic Adviser Sanjeev Sanyal on dirty, dysfunctional cities drives home the point. SBM-U 2.0, with a ₹1.41-lakh crore outlay, aims to focus on garbage-free cities and urban grey and black water _____**(24)**_____ in places not covered by AMRUT. The issue of capability and governance underscores the challenge — of being able to _____**(25)**_____ only about one lakh tonnes of solid waste per day against 1.4 lakh tonnes generated — to transition to a circular economy that treats solid and liquid waste as a resource.
(a) engender
(b) promise
(c) obdurate
(d) erudite
(e) hoarse

Q24. Seven years after launching his government's _____**(21)**_____ program, Prime Minister Narendra Modi has announced the second phase of Swachh Bharat Mission-Urban (SBM-U) and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), with a fresh _____**(22)**_____ to make India's cities clean. For all the attention it has received, the goal of scientific waste management and full sanitation that Mahatma Gandhi _____**(23)**_____ even a century ago remains largely aspirational today, and the recent lament of Principal Economic Adviser Sanjeev Sanyal on dirty, dysfunctional cities drives home the point. SBM-U 2.0, with a ₹1.41-lakh crore outlay, aims to focus on garbage-free cities and urban grey and black water _____**(24)**_____ in places not covered by AMRUT. The issue of capability and governance underscores the challenge — of being able to _____**(25)**_____ only about one lakh tonnes of solid waste per day against 1.4 lakh tonnes generated — to transition to a circular economy that treats solid and liquid waste as a resource.
(a) diatribe
(b) management
(c) beguile
(d) sequel
(e) embellish

Q23. Seven years after launching his government's _____**(21)**_____ program, Prime Minister Narendra Modi has announced the second phase of Swachh Bharat Mission-Urban (SBM-U) and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), with a fresh _____**(22)**_____ to make India's cities clean. For all the attention it has received, the goal of scientific waste management and full sanitation that Mahatma Gandhi _____**(23)**_____ even a century ago remains largely aspirational today, and the recent lament of Principal Economic Adviser Sanjeev Sanyal on dirty, dysfunctional cities drives home the point. SBM-U 2.0, with a ₹1.41-lakh crore outlay, aims to focus on garbage-free cities and urban grey and black water _____**(24)**_____ in places not covered by AMRUT. The issue of capability and governance underscores the challenge — of being able to _____**(25)**_____ only about one lakh tonnes of solid waste per day against 1.4 lakh tonnes generated — to transition to a circular economy that treats solid and liquid waste as a resource.
(a) desperated
(b) enervated
(c) emphasized
(d) detained
(e) abnegated

Q25. Seven years after launching his government's _____**(21)**_____ program, Prime Minister Narendra Modi has announced the second phase of Swachh Bharat Mission-Urban (SBM-U) and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), with a fresh _____**(22)**_____ to make India's cities clean. For all the attention it has received, the goal of scientific waste management and full sanitation that Mahatma Gandhi _____**(23)**_____ even a century ago remains largely aspirational today, and the recent lament of Principal Economic Adviser Sanjeev Sanyal on dirty, dysfunctional cities drives home the point. SBM-U 2.0, with a ₹1.41-lakh crore outlay, aims to focus on garbage-free cities and urban grey and black water _____**(24)**_____ in places not covered by AMRUT. The issue of capability and governance underscores the challenge — of being able to _____**(25)**_____ only about one lakh tonnes of solid waste per day against 1.4 lakh tonnes generated — to transition to a circular economy that treats solid and liquid waste as a resource.
(a) acumen
(b) construe
(c) accord
(d) process
(e) mitigate

Directions (26-30): Rearrange the following sentences (A), (B), (C), (D) and (E) in the proper sequence to form a meaningful paragraph and then answer the questions given below.
A. This comes two weeks after gangster Jitender Mann alias Gogi was shot dead by rival gang members inside the Rohini court.
B. The Delhi police on Monday have submitted their suggestions in an affidavit to the Delhi High Court regarding security issues in the court.
C. Consequently, the Karkardooma court complex on Thursday saw a tight security cover with the deployment of more paramilitary personnel on the premises.
D. The affidavit is related to maximize security for both clients and lawyers inside all the seven district courts in the city.
E. However, a spot check revealed a few instances where clients and lawyers were allowed to enter the court without being asked for an identity card.

Q26. Which of the following will be the **SECOND** sentence after Rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Q27. Which of the following will be the **THIRD** sentence after Rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Q28. Which of the following will be the **FIFTH** sentence after Rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

**Q29.** Which of the following will be the **FIRST** sentence after Rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Q30. Which of the following will be the **FOURTH** sentence after Rearrangement?
(a) A
(b) B
(c) C
(d) D
(e) E

Directions (31-35): Read the bar graph carefully and answer the following questions.
The bar graph given below shows the no. of employees working from Office and percentage of employees working from home out of total employee in five different companies.
Number of employees working in any company = Employees working from Office + Employees working from Home
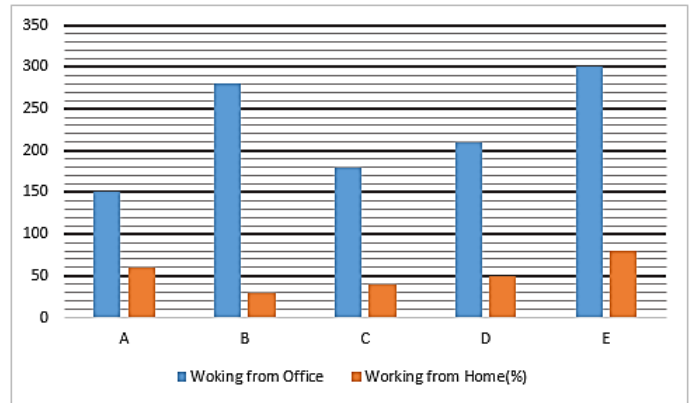
Q31. Number of employee who are working from Home in company B and D together are what percentage more/less than number of employees working from Office in company C.
(a) $\frac{220}{3}\%$
(b) $\frac{250}{3}\%$
(c) $\frac{260}{3}\%$
(d) $\frac{280}{3}\%$
(e) $\frac{200}{3}\%$

Q32. Find the average number of employee working from Home in company A, C and D.
(a) 165
(b) 175
(c) 185
(d) 195
(e) 205

Q33. Total employee working in company A is what percentage of employee working in company B.
(a) 93.75%
(b) 82.5%
(c) 72.25%
(d) 97.25%
(e) 87.75%

Q34. No. of employee working in company X are 40% more than that in company D. Find the difference between number of employees working from Home and employees working from Office in company X, if ratio of employee working from Home to that from Office is 11: 17.
(a) 144
(b) 118
(c) 136
(d) 126
(e) 112

Q35. Find the ratio of no. of employee working from Home in company E to that in company C.
(a) 8: 5
(b) 10: 1
(c) 3: 5
(d) 15: 8
(e) 1: 12

Directions (36-40): What will come in the place of the question mark (?) in the following number series?

Q36. 4, 7.5, 14.5, 25, 39, ?, 77.5
(a) 56
(b) 48.5
(c) 52
(d) 56.5
(e) 63

Q37. ?, 20, 60, 210, 840, 3780, 18900
(a) 10
(b) 12
(c) 8
(d) 6
(e) 20

Q38. 2, 6, 12, 20, 30, 42, ?
(a) 56
(b) 60
(c) 52
(d) 44
(e) 63

Q39. 57, 50, 61, 48, 65, ?, 69, 40
(a) 52
(b) 46
(c) 64
(d) 72
(e) 60

Q40. 4, 6, 9, 31, 119, 601, ?
(a) 3499
(b) 3269
(c) 3699
(d) 3739
(e) 3599

Q41. Train A whose length is 40 meter less than length of train B overtakes it in 88 sec. Speed of train A and train B is 54 kmph and 36 kmph respectively. Find the time taken by train B to cross a platform whose length is 120 meters more than length of train B.
(a) 72 sec
(b) 60 sec
(c) 120 sec
(d) 90 sec
(e) 150 sec

Q42. 40 kg of rice A & 60 kg of rice B is mixed and sold at Rs.77 per kg. If respective ratio of per kg cost of rice A and rice B is 5: 4, then find the difference between per kg cost of rice A and rice B. (Given – Profit earned is $16\frac{2}{3}\%$)
(a) 5
(b) 15
(c) 25
(d) 10
(e) 20

Q43. Respective ratio of ages of Arun and Varun 3 years ago was 13: 5. 6 years hence, age of Arun becomes 100% more than age of Varun at that time. If present age of Tarun is 50% more than Varun, then find the present age of Tarun.
(a) 22 years
(b) 33 years
(c) 25 years
(d) 42 years
(e) 27 years

Q44. Naitik and Naman started a business with investment of Rs.P and Rs.P+3000. Naitik invested for T years while Naman invested for 1.5T years. If ratio of profit share of Naitik is Rs.4000 out of total profit of Rs.14500, then find the investment of Naman.
(a) Rs.6000
(b) Rs.8000
(c) Rs.4000
(d) Rs.7000
(e) Rs.10000

Q45. Amit invests some amount in a scheme which offers 5% per annum simple interest for first 3 years, 8% per annum for next 2 years and 10% per annum for period beyond 5 years. If Amit invest Rs.4500 for 8 years, then find interest earned by Amit.
(a) Rs.2745
(b) Rs.4165
(c) Rs.1875
(d) Rs.3525
(e) Rs.2215

Directions (46-50): Read the graphs given below carefully and answer the following questions based on it.

The pie chart given below shows the distribution (in degree) of total crop (Rice + Wheat + Corn) produced (in quintal) by 5 farmers. The table shows the percentage distribution of these crops by each farmer.

Total Crop Produced = 900 Quintal
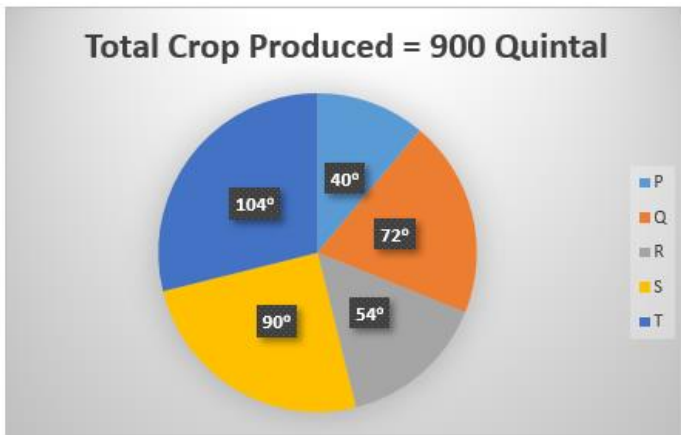
Farmer	Rice produced	Wheat Produced
P	35%	40%
Q	25%	30%
R	20%	40%
S	40%	40%
T	15%	35%

Q46. Find the quantity of Corn produced by farmer P and S together.
(a) 80 quintal
(b) 70 quintal
(c) 60 quintal
(d) 75 quintal
(e) 40 quintal

Q47. Find the difference between quantity of wheat produced by farmer T and Rice produced by farmer Q.
(a) 56 quintal
(b) 42 quintal
(c) 69 quintal
(d) 46 quintal
(e) 32 quintal

Q48. Find the average of quantity of wheat produced by farmer Q, R and S.
(a) 66 quintal
(b) 44 quintal
(c) 55 quintal
(d) 33 quintal
(e) 77 quintal

Q49. Wheat produced by farmer Q is what percentage more/less than Rice produced by farmer R.
(a) 50%
(b) 25%
(c) $66\frac{2}{3}$%
(d) 100%
(e) 200%

Q50. What is the respective ratio of corn produced by farmer R to that by farmer S?
(a) 5: 6
(b) 5: 4
(c) 6: 5
(d) 7: 4
(e) 7: 5

Directions (51-55): In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

Q51.
I. $x^2 + 7x + 10 = 0$
II. $y^2 + 6y + 8 = 0$
(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.

Q52.
I. $2x^2 - 15x + 28 = 0$
II. $2y^2 + 3y - 20 = 0$
(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.

Q53.
I. $x^2 - 7x - 98 = 0$
II. $y^2 + 19y + 84 = 0$
(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.

Q54.
I. $x^2 - 11x + 30 = 0$
II. $y^2 - 13y + 42 = 0$
(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.

Q55. I. 7x+4y=55
II. 6y+5x=55
(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.

Q56. There are 3 different numbers. First number is $34\frac{2}{7}\%$ more than second number while third number is 4 more than average of first and second number. If sum of three numbers is 496, then find the second number.
(a) 329
(b) 168
(c) 140
(d) 280
(e) 208

Q57. Vivek can complete 60% of work in 40 days. He started working but after working for 10 days, he left the work and the remaining work completed by Dev in 34 days. Find the time taken to complete the work, if they work together.
(a) 20 days
(b) 25 days
(c) 18 days
(d) 15 days
(e) 30 days

Q58. The cost price of article A is 40% more than that of article B while selling price of article B is 20% less than that of article A. if there is a profit of Rs.50 after selling article A and difference between selling price of article A and B is Rs.150, then find the profit% on article B.
(a) 10%
(b) 20%
(c) 15%
(d) 25%
(e) 30%

Q59. A boat takes 9 hours to cover 432 km in downstream and 16 hours to cover 288 km in upstream. Find the time taken by boat to cover 132 km in still water.
(a) 4 hours
(b) 3.5 hours
(c) 3 hours
(d) 5 hours
(e) 6 hours

Q60. The average age of certain no. of people in a group is 42 years. If 2 new members of age 40 years and 50 years added into the group the average age of the group increased by 1. Find the total number of people in the group initially.
(a) 6
(b) 5
(c) 7
(d) 4
(e) 3

Directions (61-65): Read the given data carefully and answer the following questions.

Anurag bought 105 articles of three different types and sold them to Deepak. The respective ratio of cost price of article A, B and C is 3: 5: 4. He bought 30 units of article A in Rs.4500 and sold them in Rs.5400. He earned profit of 20% by selling all the units of article B. Article B sold by him is 45 more than article C. Total profit earned by him by selling all the article is 16%.

Q61. What is the total selling price of article B?
(a) Rs.12000
(b) Rs.15000
(c) Rs.18000
(d) Rs.16000
(e) Rs.13500

Q62. Find the difference between total units sold of article A and article B.
(a) 30
(b) 10
(c) 25
(d) 15
(e) 5

Q63. What is the profit/loss percentage by selling all the units of article C?
(a) 10% profit
(b) 20% profit
(c) 10% loss
(d) 20% loss
(e) 12.5% profit

Q64. If Anurag purchased the article A from Ayush at discount of 40% and marked 60% it, then find the difference between marked price of article A for Ayush and discount given by Anurag to Deepak.
(a) Rs.210
(b) Rs.140
(c) Rs.180
(d) Rs.160
(e) Rs.190

Q65. What is the respective ratio of selling price of article A, B and C?
(a) 3: 5: 3
(b) 4: 4: 5
(c) 5: 3: 2
(d) 4: 3: 5
(e) 3: 3: 5

Directions (66-69): In each of the questions below are given some statements followed by two 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.

Q66. Statements: No pen is pencil. No pencil is rubber. All pen is marker.
Conclusion: I. All rubber can be marker
II. Some marker can be rubber
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusion I and II follow.

Q67. Statements: Only a few bottle are glass. Only mug is bowl. Some mug is glass.
Conclusion: I. No bowl is glass
II. Some bottle is not mug
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusion I and II follow.

Q68. Statements: All queen are king. No king is jack. All jack are ace.
Conclusion: I. No Ace is queen
II. Some queen are ace
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusion I and II follow.

Q69. Statements: Some bike is motor. All motor is auto. Only auto is cycle.
Conclusion: I. Some bike is cycle
II. Some cycle can never be bike
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusion I and II follow.

Directions (70-74): Study the following information and answer the questions below:

Eight persons P, Q, R, S, T, U, V and W live on different floors of an eight-floor building (but not necessarily in the same order) where ground floor is numbered as 1, above it is 2 and so on till the topmost floor is numbered as 8.
S lives on one of the floors above 4th floor. Three persons live between S and U who lives three floors below Q. The number of persons live between P and Q is same as the number of persons live between Q and V. T does not live on the floor which is either just above or just below the floor of either P or V. The number of persons live below T is same as the number of persons live above R who lives adjacent to V.

Q70. Who among the following lives on topmost floor?
(a) R
(b) V
(c) S
(d) Q
(e) None of these

Q71. W lives on which among the following floor?
(a) 8th floor
(b) 1st floor
(c) 4th floor
(d) 5th floor
(e) None of these

Q72. How many persons live below S's floor?
(a) Six
(b) Seven
(c) Either b or d
(d) Five
(e) None of these

Q73. Four among the following five are alike in a certain way based on a group. Who among the following does not belong to that group?
(a) R
(b) V
(c) S
(d) W
(e) U

Q74. The number of persons live below P is same as the number of persons live above___?
(a) R
(b) V
(c) S
(d) Q
(e) None of these

Q75. 36 persons sit in a linear row and all face north. If Aman is 21st from left end of the row and Manu is 27th from right end of the row, then find the number of persons sit between them?
(a) 12
(b) 11
(c) 10
(d) 9
(e) None of these

Directions (76-80): Study the given information to answer the questions below:

Six persons K, L, M, N, O and P sit around a triangular table but not necessarily in the same order. Some of them face inside and some face outside the table. All the persons sit at middle of each side of the table in such a way that two persons sit at each side of the table.
M sits third to the left of N. Only one person sits between M and K who does not sit on the same side of N. L is not an immediate neighbour of M. L faces same direction as the one who sits adjacent to L on the same side of L. Two persons sit between L and P and both of them face the same direction. Immediate neighbours of M face the same direction but opposite to K who does not sit immediate left of N. Both M and O face opposite direction to each other. The number of persons face outside is half of the number of persons face inside the table.

Q76. Who among the following sits immediate left of O?
(a) M
(b) L
(c) N
(d) P
(e) None of these

Q77. Who among the following sits adjacent to P but not on the same side of table?
(a) N
(b) K
(c) M
(d) O
(e) None of these

Q78. If O and N interchanges their position then, who among the following sits third to the right of O?
(a) P
(b) M
(c) K
(d) L
(e) None of these

Q79. How many persons sit between M and O, when counted to the right of M?
(a) One
(b) Two
(c) Three
(d) Four
(e) None of these

Q80. What is the position of P with respect to N?
(a) Immediate right
(b) Third to the right
(c) Third to the left
(d) Immediate left
(e) Second to the right

Directions (81-84): Study the given information carefully to answer the questions below:
In a certain code language
"Some IPS are IAS" is coded as "ic qw sy ol"
"All IAS are SDM" is coded as "ol ab qw rh"
"Some officers are SDM" is coded as "ic xk ol rh"
"Some SDM will become DM" is coded as "ea yu ic di rh"

Q81. What is the code for 'officers' in the given code language?
(a) xk
(b) ol
(c) ic
(d) Either a or b
(e) None of these

Q82. What will be the code for 'IPS are officers' in the given code language?
(a) qw sy ol
(b) ic xk ol
(c) ab qw rh
(d) sy xk ol
(e) None of these

Q83. The code 'ab' is used for which among the following words?
(a) IAS
(b) are
(c) All
(d) SDM
(e) None of these

Q84. What is the code for 'become' according to the given code language?
(a) ic
(b) ea
(c) yu
(d) di
(e) Can't be determined

Directions (85-86): In these questions, a relationship between different elements is shown in the statements. The statements are followed by two conclusions. Give answer

Q85. Statements: $A \geq B \geq C < D, O \leq G < A = E$
Conclusions: I. $E > C$ **II.** $G < D$
(a) if only conclusion I is true.
(b) if only conclusion II is true.
(c) if either conclusion I or II is true.
(d) if neither conclusion I nor II is true.
(e) if both conclusions I and II are true.

Q86. Statements: $C = D \geq F > U = G, V \geq H > G$
Conclusions: I. $V > U$ **II.** $C \geq G$
(a) if only conclusion I is true.
(b) if only conclusion II is true.
(c) if either conclusion I or II is true.
(d) if neither conclusion I nor II is true.
(e) if both conclusions I and II are true.

Directions (87-91): Study the information below to answer the questions given:

Ten boxes are placed one above the other in a stack. More than six boxes are placed below V. The number of boxes placed below S is same as the number of boxes placed above V. T is placed three places above S. Z is placed exactly between V and T. Four boxes are placed between D and G which is placed below D. K is placed immediate above Q and both of them are placed above G. C is not placed adjacent to V and B.

Q87. How many boxes are placed above B?
(a) None
(b) One
(c) Two
(d) Three
(e) More than three

Q88. How many boxes are placed between C and D?
(a) One
(b) Three
(c) Five
(d) Seven
(e) None of these

Q89. Four among the following five are alike in a certain way related to a group, find the one which does not belong to that group?
(a) V-Z
(b) K-G
(c) T-S
(d) B-D
(e) Q-C

Q90. Which among the following box is placed at second position from bottom?
(a) S
(b) B
(c) C
(d) G
(e) None of these

Q91. The number of boxes placed between Q and T is same as the number of boxes placed above ___?
(a) K
(b) Z
(c) D
(d) B
(e) None of these

Directions (92-94): Study the following information carefully and answer the question below:

There are seven persons W, H, D, V, F, G and S in a family of three generation. G is the father-in-law of H who has only one child W. H is the brother-in-law of S who has only one sister D. D is the only daughter of F who has three children. There are two married couple in the family.

Q92. What is the relation of V with respect to W?
(a) Brother
(b) Uncle
(c) Father
(d) Aunt
(e) None of these

Q93. Who among the following is the grandchild of F?
(a) W
(b) V
(c) H
(d) Either a or c
(e) None of these

Q94. How many female members are there in the family?
(a) Four
(b) Two
(c) Three
(d) None of these
(e) Either (b) or (c)

Directions (95-99): Study the given information carefully and answer the questions below:

Eight persons H, A, Y, T, I, C, K and P sit in a linear row and all face north but not necessarily in the same order.
T is the only neighbour of P. Four persons sit between P and H. A sits second to the right of H. Y is not an immediate neighbour of H and T. I sits fourth to the left of K. C does not sit to the right of H.

Q95. Who among the following sits at right end of the row?

(a) P

(b) A

(c) K

(d) I

(e) None of these

Q96. Who among the following sits immediate left of C?

(a) H

(b) I

(c) Y

(d) K

(e) None of these

Q97. What is the position of I with respect to K?

(a) Immediate left

(b) Fourth to the right

(c) Third to the left

(d) Fourth to the left

(e) None of these

Q98. Who among the following sits exactly between T and A?

(a) Y

(b) H

(c) C

(d) K

(e) None of these

Q99. Who among the following is an immediate neighbour of Y?

(a) I

(b) T

(c) C

(d) Both a and c

(e) None of these

Q100. How many pair of letters are there in the word **'EXPRESSIONS'**, each of which have as many letters between them (both forward and backward direction) in the word as they have between them according to English alphabetical order?

(a) One

(b) Two

(c) Three

(d) Four

(e) None of these

Solutions

S1. Ans.(e)

Sol. All of the given statements are correct with reference to the context of the question. Hence, option (e) is the right answer choice.

Refer to the concluding sentences of the first paragraph, "They helped reduce risks, responded swiftly and thus helped people recover quickly. The PRIs provided essential leadership at the local level. They performed both regulatory and welfare functions. For instance, during the nationwide lockdown, PRIs set up containment zones, arranged transport, identified buildings for quarantining people and provisioned food for the incoming migrants."

S2. Ans.(c)

Sol. Among the given options, only (i) and (ii) are correct with reference to the information provided in the given passage about the Panchayati Raj System. While statement (iii) is incorrect as people themselves initiate the decision-making process in the Panchayati Raj System. Hence, option (c) is the right answer choice.

Refer to the starting lines of the first paragraph, "The Panchayati Raj, first adopted by Nagaur in Rajasthan on October 2, 1959, has expanded vastly. There are now 2,60,512 Panchayati Raj Institutions (PRIs) represented by about 31 lakh elected members across India. This system of local self-governance, where people in the villages participate in the decision-making process, is the backbone of democracy."

S3. Ans.(d)

Sol. All of the given statements are correct with reference to the context of the question. Hence, option (d) is the right answer choice.

Refer to the starting lines of the second paragraph, "Gram sabhas act as a sounding board for diverse ideas and opinions. They provide a platform to build consensus and make resolutions in the community's interest. During the pandemic, gram sabhas resolved to adhere to COVID-19 norms. In addition, regular engagement with frontline workers like ASHA workers and Anganwadi workers through committees bridged the trust gap between the community and the officials. By representing diverse communities, PRIs mobilize them effectively."

S4. Ans.(e)

Sol. Among the given options, only (b) and (c) are correct. While statement (a) is not contextual in meaning with respect to the context of the question. Hence, option (e) is the right answer choice.

Refer to the starting lines of the third paragraph, "One, it is crucial to include disaster management chapters in Panchayat Raj Acts and make disaster planning and spending part of Panchayati Raj development plans and local-level committees. This will ensure citizen-centric mapping and planning of resources. Various insurance products customized to local needs will build the financial resilience of the community. Two, conducting regular location-specific training programs for the community and organizing platforms for sharing best practices will strengthen individual and institutional capacities."

S5. Ans.(d)
Sol. Among the given options, only (a) and (b) are correct. Hence, option (d) is the right answer choice.
Refer to the concluding lines of the second paragraph, "The Yokohama strategy during the International Decade for Natural Disaster Reduction in May 1994 emphasized that it is important to focus on disaster prevention, mitigation and preparedness rather than disaster response alone, to reduce vulnerability. In this respect, certain initiatives can be taken to build the capacity of PRIs."

S6. Ans.(c)
Sol. The Panchayati Raj System is referred to as the "backbone of democracy" because it serves as the primary support system for local government. Therefore, among the given options, only sentence (c) is the right answer choice.

S7. Ans.(e)
Sol. All of the given words are synonyms of the word 'resilience' meaning 'the capacity to recover quickly from difficulties; toughness'. Hence, option (e) is the right answer choice.
(a) Strength- a good quality or ability that somebody/something has
(b) Toughness- the ability to endure difficult conditions.
(c) Hardiness- the ability to deal with hardship or to cope in difficult situations.

S8. Ans.(b)
Sol. Except for "procession" which is spelled as "procesion" all other words are correctly spelled. Hence, option (b) is the right answer choice.

S9. Ans.(a)
Sol. Except for "face-off" which is spelled as "face-of" all other words are correctly spelled. Hence, option (a) is the right answer choice.

S10. Ans.(b)
Sol. To bring contextuality to the sentence, instead of 'massively', it should be 'massive'. Hence, option (b) is the right answer choice.

S11. Ans.(a)
Sol. Among the given statements, only "despite" can be used to connect the given statements. The correct statement thus formed will be:
'Despite the heavy rain, we enjoyed the festival.'

S12. Ans.(d)
Sol. Statements can be joined together using the conjunction "since". The meaningful sentence thus formed is "Since I have only read that one page, I cannot understand it in the correct context."

S13. Ans.(c)
Sol. Statements (I) and (II) can be joined together using the word "although". Therefore, the statement thus formed is "Although the world is full of suffering, there are millions of ways to keep us smiling.''

S14. Ans.(b)
Sol. Statements (I) and (II) can be joined together using the word "provided that". The sentence thus formed would be "You may keep the book a further week provided that no one else requires it."

S15. Ans.(d)
Sol. The set of sentences (I)-(II) can be joined to make a grammatically correct and contextual sentence using the connector 'unless'. The sentence thus formed would be "Unless you do hard work at every stage, you can't succeed in life."

S16. Ans.(b)
Sol. Among the given parts of the statement, the error lies in part (D), where 'by' will be replaced with 'from'. Hence, option (b) is the most suitable answer choice.

S17. Ans.(d)
Sol. Among the given parts of the statement, the error lies in part (A), where 'broken' will be replaced with 'broke'. Hence, option (d) is the most suitable answer choice.

S18. Ans.(e)
Sol. There is no error in any part of the sentence. Hence, option (e) is the most suitable answer choice.

S19. Ans.(d)
Sol. Among the given parts of the statement, the error lies in part (A), where 'among' will be replaced with 'between'. Hence, option (d) is the most suitable answer choice.

S20. Ans.(c)
Sol. Among the given parts of the statement, the error lies in part (B), where 'from' will be replaced with 'over'. Hence, option (c) is the most suitable answer choice

S21. Ans.(d)
Sol. The concerned sentence states that Prime Minister Narendra Modi has announced the second phase of his government's flagship program, Swachh Bharat Mission-Urban (SBM-U). Therefore, 'flagship' is the most appropriate filler. Hence, option (d) is the right answer choice.
(a) tractable- (of a person) easy to control or influence.
(b) laconic- (of a person, speech, or style of writing) using very few words.
(c) enraged- very angry; furious.
(d) flagship- the best or most important thing owned or produced by a particular organization.
(e) abandon- cease to support or look after (someone); desert.

S22. Ans.(b)
Sol. The concerned sentence states that Prime Minister Narendra Modi has announced the second phase of the Swachh Bharat Mission-Urban (SBM-U) along with a new promise to clean up India's cities.
Therefore, 'promise' is the most appropriate filler. Hence, option (b) is the right answer choice.
(a) engender- cause or give rise to (a feeling, situation, or condition).
(b) promise- give good grounds for expecting (a particular occurrence)
(c) obdurate- stubbornly refusing to change one's opinion or course of action.
(d) erudite- having or showing great knowledge or learning.
(e) hoarse- (of a person's voice) sounding rough and harsh, typically as the result of a sore throat or of shouting.

S23. Ans.(c)
Sol. The concerned sentence states that even a century later, the goal of scientific waste management and full sanitation that Mahatma Gandhi emphasized remains largely aspirational. Therefore, 'emphasized' is the most appropriate filler. Hence, option (c) is the right answer choice.
(a) desperate- (of a person) having a great need or desire for something.
(b) enervated- drained of energy or vitality.
(c) emphasized- give special importance or value to (something) in speaking or writing.
(d) detained- officially seize and hold (goods).
(e) abnegated- renounce or reject (something desired or valuable).

S24. Ans.(b)
Sol. The concerned sentence states that SBM-U 2.0, with a budget of Rs.1.41 lakh crore, aims to focus on garbage-free cities as well as urban grey and black water management in areas not covered by AMRUT. Therefore, 'management' is the most appropriate filler. Hence, option (b) is the right answer choice.

(a) diatribe- a forceful and bitter verbal attack against someone or something.
(b) management- the process of dealing with or controlling things or people.
(c) beguile- charm or enchant (someone), often in a deceptive way.
(d) sequel- something that takes place after or as a result of an earlier event.
(e) embellish- make (something) more attractive by the addition of decorative details or features.

S25. Ans.(d)
Sol. The concerned sentence states that the issue of capability and governance highlights the challenge of processing only about one lakh tonnes of solid waste per day. Therefore, 'process ' is the most appropriate filler. Hence, option (d) is the right answer choice.
(a) acumen- the ability to make good judgments and take quick decisions.
(b) construe- interpret (a word or action) in a particular way.
(c) accord- give or grant someone (power, status, or recognition).
(d) process- a series of actions or steps taken in order to achieve a particular end.
(e) mitigate- make (something bad) less severe, serious, or painful.

S26. Ans.(d)
Sol. Statement (B) will be the introductory sentence as it best describes the theme of the paragraph. Now, statement (B) will be followed by statement (D) as it further describes the purpose of the affidavit. Further, statement (D) will be followed by statement (C) as it states that as a result of the previous actions, the Karkardooma court complex on Thursday saw a tight security. Now, statement (C) will be followed by statement (A) which states that the steps have been taken just two weeks after rival gang members shot and killed gangster Jitender Mann alias Gogi inside the Rohini court. Finally, statement (E) will be the concluding sentence as it is in contrast. Hence, the correct rearrangement of the sentences would be **'BDCAE'**. Hence, option (d) is the right answer choice.

S27. Ans.(c)
Sol. Statement (B) will be the introductory sentence as it best describes the theme of the paragraph. Now, statement (B) will be followed by statement (D) as it further describes the purpose of the affidavit. Further, statement (D) will be followed by statement (C) as it states that as a result of the previous actions, the Karkardooma court complex on Thursday saw a tight security. Now, statement (C) will be followed by statement (A) which states that the steps have been taken just two weeks after rival gang members shot and killed gangster Jitender Mann alias Gogi inside the Rohini court. Finally, statement (E) will be the concluding sentence as it is in contrast. Hence, the correct rearrangement of the sentences would be **'BDCAE'**. Hence, option (c) is the right answer choice.

S28. Ans.(e)
Sol. Statement (B) will be the introductory sentence as it best describes the theme of the paragraph. Now, statement (B) will be followed by statement (D) as it further describes the purpose of the affidavit. Further, statement (D) will be followed by statement (C) as it states that as a result of the previous actions, the Karkardooma court complex on Thursday saw a tight security. Now, statement (C) will be followed by statement (A) which states that the steps have been taken just two weeks after rival gang members shot and killed gangster Jitender Mann alias Gogi inside the Rohini court. Finally, statement (E) will be the concluding sentence as it is in contrast. Hence, the correct rearrangement of the sentences would be **'BDCAE'**. Hence, option (e) is the right answer choice.

S29. Ans.(b)
Sol. Statement (B) will be the introductory sentence as it best describes the theme of the paragraph. Now, statement (B) will be followed by statement (D) as it further describes the purpose of the affidavit. Further, statement (D) will be followed by statement (C) as it states that as a result of the previous actions, the Karkardooma court complex on Thursday saw a tight security. Now, statement (C) will be followed by statement (A) which states that the steps have been taken just two weeks after rival gang members shot and killed gangster Jitender Mann alias Gogi inside the Rohini court. Finally, statement (E) will be the concluding sentence as it is in contrast. Hence, the correct rearrangement of the sentences would be **'BDCAE'**. Hence, option (b) is the right answer choice.

S30. Ans.(a)
Sol. Statement (B) will be the introductory sentence as it best describes the theme of the paragraph. Now, statement (B) will be followed by statement (D) as it further describes the purpose of the affidavit. Further, statement (D) will be followed by statement (C) as it states that as a result of the previous actions, the Karkardooma court complex on Thursday saw a tight security. Now, statement (C) will be followed by statement (A) which states that the steps have been taken just two weeks after rival gang members shot and killed gangster Jitender Mann alias Gogi inside the Rohini court. Finally, statement (E) will be the concluding sentence as it is in contrast. Hence, the correct rearrangement of the sentences would be **'BDCAE'**. Hence, option (a) is the right answer choice.

S31. Ans.(b)
Sol.
Number of employees working from Home in company B and D together =
$$= \frac{280}{70} \times 30 + \frac{210}{50} \times 50$$
$$= 120 + 210 = 330$$
So, required percentage $= \frac{330-180}{180} \times 100$
$$= \frac{150}{180} \times 100 = \frac{250}{3}\%$$

S32. Ans.(c)
Sol.
Number of employees working from Home in company A $= \frac{150}{40} \times 60 = 225$
Number of employees working from Home in company C $= \frac{180}{60} \times 40 = 120$
Number of employees working from Home in company D $= \frac{210}{50} \times 50 = 210$
So, required average $= \frac{1}{3} \times (225 + 120 + 210)$
$= \frac{555}{3} = 185$

S33. Ans.(a)
Sol.
Total employees working in company A $= \frac{150}{40} \times 100 = 375$
Total employees working in company B $= \frac{280}{70} \times 100 = 400$
Required percentage $= \frac{375}{400} \times 100$
$= 93.75\%$

S34. Ans.(d)
Sol.
No. of employees working in company D $= \frac{210}{50} \times 100 = 420$
No. of employees working in company X $= 420 \times \frac{140}{100} = 588$
So, required difference $= \frac{6}{28} \times 588 = 126$

S35. Ans.(b)
Sol.
No. of employees working from Home in company E $= 300 \times \frac{80}{20} = 1200$
No. of employees working from Home in company C $= 180 \times \frac{40}{60} = 120$
So, required ratio $= \frac{1200}{120} = \frac{10}{1}$

S36. Ans.(d)
Sol. The pattern of the series is –
4+3.5×1=7.5
7.5+3.5×2=14.5
14.5+3.5×3=25
25+3.5×4=39
39+3.5×5=56.5
56.5+3.5×6=77.5

S37. Ans.(c)
Sol. The pattern of the series is –
8×2.5=20
20×3=60
60×3.5=210
210×4=840
840×4.5=3780
3780×5=18900

S38. Ans.(a)
Sol. The pattern of the series is –
$2^2 - 2 = 2$
$3^2 - 3 = 6$
$4^2 - 4 = 12$
$5^2 - 5 = 20$
$6^2 - 6 = 30$
$7^2 - 7 = 42$
$8^2 - 8 = 56$

S39. Ans.(b)
Sol. The pattern of the series is –
57-7=50
50+11=61
61-13=48
48+17=65
65-19=46
46+23=69
69-29=40

S40. Ans.(e)
Sol. The pattern of the series is –
4×1+2=6
6×2-3=9
9×3+4=31
31×4-5=119
119×5+6=601
601×6-7=3599

S41. Ans.(b)
Sol.
Let length of train A be l.
ATQ
$\frac{l+l+40}{(54-36)\times\frac{5}{18}} = 88$
$2l + 40 = 440$
$2l = 400$
$l = 200$
Length of platform = 240 + 120 = 360 m
So, required time = $\frac{(240+360)\times18}{36\times5}$
= 60 sec

S42. Ans.(b)
Sol. Let per kg cost of rice A and rice B is 5x and 4x respectively.
ATQ
$\frac{40\times5x+60\times4x}{40+60} = 77 \times \frac{6}{7}$
$440x = 6600$
$x = 15$
So, required difference = $5x - 4x = 15$

S43. Ans.(e)
Sol. Let ages of Arun and Varun 3 years ago was 13x and 5x respectively.
ATQ,
13x+9=2×(5x+9)
13x+9=10x+18 ⇒ x=3
So, present ages of Arun and Varun is 42 years(13x+3) and 18 years(5x+3) respectively.
So, present age of Tarun =1.5×18=27 years

S44. Ans.(d)
Sol.
Respective ratio of profit share of Naitik and Naman
$= \frac{(P\times T)}{((P+3000)\times1.5T)} = \frac{4000}{10500}$
$21P = 12P + 36000$
$P = 4000$
So, investment of Naman = Rs. 7000

S45. Ans.(a)
Sol.
Interest earned = $\frac{4500\times5\times3}{100} + \frac{4500\times8\times2}{100} + \frac{4500\times10\times3}{100}$
$= 45 \times (15 + 16 + 30)$
$= Rs. 2745$

S46. Ans.(b)
Sol.
Quantity of corn produced by farmer P = $\frac{40}{360} \times 900 \times \frac{25}{100} = 25\ quintal$
Quantity of corn produced by farmer S = $\frac{90}{360} \times 900 \times \frac{20}{100} = 45\ quintal$
Required sum = 25 + 45 = 70 quintal

S47. Ans.(d)
Sol.
Wheat produced by farmer T = $\frac{104}{360} \times 900 \times \frac{35}{100} = 91\ quintal$
Rice produced by farmer Q = $\frac{72}{360} \times 900 \times \frac{25}{100} = 45\ quintal$
So, required difference = 91 − 45 = 46 quintal

S48. Ans.(a)
Sol.
Wheat produced by farmer Q = $\frac{72}{360} \times 900 \times \frac{30}{100} = 54\ quintal$
Wheat produced by farmer R = $\frac{54}{360} \times 900 \times \frac{40}{100} = 54\ quintal$
Wheat produced by farmer S = $\frac{90}{360} \times 900 \times \frac{40}{100} = 90\ quintal$
So, required average = $\frac{1}{3} \times (54 + 54 + 90) = \frac{198}{3}$
= 66 quintal

S49. Ans.(d)
Sol.
Wheat produced by farmer Q = $\frac{72}{360} \times 900 \times \frac{30}{100} = 54\ quintal$
Rice produced by farmer R = $\frac{54}{360} \times 900 \times \frac{20}{100} = 27\ quintal$
So, required percentage = $\frac{54-27}{27} \times 100 = 100\%$

S50. Ans.(c)
Sol.
Corn produced by farmer R = $\frac{54}{360} \times 900 \times \frac{40}{100} = 54\ quintal$
Corn produced by farmer S = $\frac{90}{360} \times 900 \times \frac{20}{100} = 45\ quintal$
So, required ratio = $\frac{54}{45} = \frac{6}{5}$

S51. Ans.(e)
Sol.
I. $x^2 + 5x + 2x + 10 = 0$
$x(x + 5) + 2(x + 5) = 0$
$(x + 5)(x + 2) = 0$
$x = -5, -2$
II. $y^2 + 4y + 2y + 8 = 0$
$y(y + 4) + 2(y + 4) = 0$
$(y + 4)(y + 2) = 0$
$y = -2, -4$
So, no relation can be established between x and y

S52. Ans.(a)
Sol.
I. $x^2 + 5x + 2x + 10 = 0$
$x(x + 5) + 2(x + 5) = 0$
$(x + 5)(x + 2) = 0$
$x = -5, -2$
II. $y^2 + 4y + 2y + 8 = 0$
$y(y + 4) + 2(y + 4) = 0$
$(y + 4)(y + 2) = 0$
$y = -2, -4$
So, no relation can be established between x and y

S53. Ans.(b)
Sol.
I. $x^2 - 14x + 7x - 98 = 0$
$x(x - 14) + 7(x - 14) = 0$
$(x - 14)(x + 7) = 0$
$x = -7, 14$
II. $y^2 + 12y + 7y + 84 = 0$
$y(y + 12) + 7(y + 12) = 0$
$(y + 12)(y + 7) = 0$
$y = -7, -12$
So, $x \geq y$

S54. Ans.(d)
Sol.
I. $x^2 - 5x - 6x + 30 = 0$
$x(x - 5) - 6(x - 5) = 0$
$(x - 5)(x - 6) = 0$
$x = 5, 6$
II. $y^2 - 6y - 7y + 42 = 0$
$y(y - 6) - 7(y - 6) = 0$
$(y - 6)(y - 7) = 0$
$y = 6, 7$
So, $y \geq x$

S55. Ans.(e)
Sol. By multiplying I by 3 and II by 2 and equating both equations.
x=5, y=5
So, x=y

S56. Ans.(c)
Sol.
Let second number be 35a.
First number $= 35a \times \frac{940}{700} = 47a$
Third number $= \frac{35a+47a}{2} + 4$
$= 41a + 4$
ATQ
$35a + 47a + 41a + 4 = 496$
$123a = 492$
$a = 4$
So, required number $= 35a = 140$

S57. Ans.(b)
Sol.
Time taken by Vivek to complete the work alone $= 40 \times \frac{100}{60} = \frac{200}{3}$ days
Let Dev takes T days to complete the work.
ATQ
$\frac{10 \times 3}{200} + \frac{34}{T} = 1$
$\frac{34}{T} = 1 - \frac{3}{20}$
$T = 40$
So, required time $= \frac{\frac{200}{3} \times 40}{\frac{200}{3} + 40} = 25$ days

S58. Ans.(b)
Sol.
Let selling price of article A be 5x.
Selling price of article B = 4x
So, $5x - 4x = 150$
$x = 150$
Cost price of article A $= 150 \times 5 - 50 = Rs. 700$
Cost price of article B $= 700 \times \frac{100}{140} = Rs. 500$
So, required profit % $= \frac{(600-500)}{500} \times 100 = 20\%$

S59. Ans.(a)
Sol. Let speed of boat in still water and speed of stream be x kmph and y kmph respectively.
ATQ,
$x + y = \frac{432}{9}$
$x + y = 48$ ....(i)
Also, $x - y = \frac{288}{16}$
$x - y = 18$ ....(ii)
From equations (i) and (ii)
$x = 33$ and $y = 15$
So, required time $= \frac{132}{33} = 4$ hours

S60. Ans.(d)
Sol.
Let initial no. of people be 'n'.
$42 \times n + 40 + 50 = (n + 2) \times 43$
$42n + 90 = 43n + 86$
$n = 4$

S61. Ans.(c)
Sol.
Cost price of each unit of article A $= \frac{4500}{30} = Rs. 150$
Selling price of each unit of article A $= \frac{5400}{30} = Rs. 180$
Cost price of article B $= \frac{150}{3} \times 5 = Rs. 250$
Selling price of article B $= 250 \times \frac{120}{100} = Rs. 300$
Cost price of article C $= 150 \times \frac{4}{3} = Rs. 200$
Let number of article C sold be x.
So, $30 + x + 45 + x = 105$
$2x = 30$
$x = 15$
Total cost price $= 150 \times 30 + 250 \times 60 + 200 \times 15 = Rs. 22500$
Let selling price of each unit of article C be Rs.'P'.
Total selling price $= 180 \times 30 + 300 \times 60 + P \times 15 = 22500 \times \frac{116}{100}$
$5400 + 18000 + 15P = 26100$
$15P = 2700$
$P = 180$
Total selling price of article B =300×60=Rs.18000

S62. Ans.(a)
Sol.
Cost price of each unit of article A = $\frac{4500}{30} = Rs.\,150$
Selling price of each unit of article A = $\frac{5400}{30} = Rs.\,180$
Cost price of article B = $\frac{150}{3} \times 5 = Rs.\,250$
Selling price of article B = $250 \times \frac{120}{100} = Rs.\,300$
Cost price of article C = $150 \times \frac{*}{3} = Rs.\,200$
Let number of article C sold be x.
So, $30 + x + 45 + x = 105$
$2x = 30$
$x = 15$
Total cost price = $150 \times 30 + 250 \times 60 + 200 \times 15 = Rs.\,22500$
Let selling price of each unit of article C be Rs.'P'.
Total selling price = $180 \times 30 + 300 \times 60 + P \times 15 = 22500 \times \frac{116}{100}$
$5400 + 18000 + 15P = 26100$
$15P = 2700$
$P = 180$
Required difference =60-30=30

S63. Ans.(c)
Sol.
Cost price of each unit of article A = $\frac{4500}{30} = Rs.\,150$
Selling price of each unit of article A = $\frac{5400}{30} = Rs.\,180$
Cost price of article B = $\frac{150}{3} \times 5 = Rs.\,250$
Selling price of article B = $250 \times \frac{120}{100} = Rs.\,300$
Cost price of article C = $150 \times \frac{*}{3} = Rs.\,200$
Let number of article C sold be x.
So, $30 + x + 45 + x = 105$
$2x = 30$
$x = 15$
Total cost price = $150 \times 30 + 250 \times 60 + 200 \times 15 = Rs.\,22500$
Let selling price of each unit of article C be Rs.'P'.
Total selling price = $180 \times 30 + 300 \times 60 + P \times 15 = 22500 \times \frac{116}{100}$
$5400 + 18000 + 15P = 26100$
$15P = 2700$
$P = 180$
Loss percentage = $\frac{200 \times 15 - 180 \times 15}{200 \times 15} \times 100$
= 10% loss

S64. Ans.(e)
Sol.
Cost price of each unit of article A = $\frac{4500}{30} = Rs.\,150$
Selling price of each unit of article A = $\frac{5400}{30} = Rs.\,180$
Cost price of article B = $\frac{150}{3} \times 5 = Rs.\,250$
Selling price of article B = $250 \times \frac{120}{100} = Rs.\,300$
Cost price of article C = $150 \times \frac{*}{3} = Rs.\,200$
Let number of article C sold be x.
So, $30 + x + 45 + x = 105$
$2x = 30$
$x = 15$
Total cost price = $150 \times 30 + 250 \times 60 + 200 \times 15 = Rs.\,22500$
Let selling price of each unit of article C be Rs.'P'.
Total selling price = $180 \times 30 + 300 \times 60 + P \times 15 = 22500 \times \frac{116}{100}$
$5400 + 18000 + 15P = 26100$
$15P = 2700$
$P = 180$

Marked price of article A for Ayush = $150 \times \frac{100}{60} = Rs.\,250$
Marked price of article A for Anurag = $150 \times \frac{160}{100} = Rs.\,240$
Discount offered = $240 - 180 = Rs.\,60$
So, required difference = $250 - 60 = Rs.\,190$

S65. Ans.(a)
Sol.
Cost price of each unit of article A = $\frac{4500}{30} = Rs.\,150$
Selling price of each unit of article A = $\frac{5400}{30} = Rs.\,180$
Cost price of article B = $\frac{150}{3} \times 5 = Rs.\,250$
Selling price of article B = $250 \times \frac{120}{100} = Rs.\,300$
Cost price of article C = $150 \times \frac{*}{3} = Rs.\,200$
Let number of article C sold be x.
So, $30 + x + 45 + x = 105$
$2x = 30$
$x = 15$
Total cost price = $150 \times 30 + 250 \times 60 + 200 \times 15 = Rs.\,22500$
Let selling price of each unit of article C be Rs.'P'.
Total selling price = $180 \times 30 + 300 \times 60 + P \times 15 = 22500 \times \frac{116}{100}$
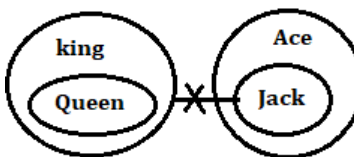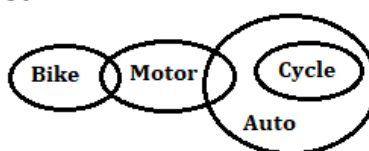$5400 + 18000 + 15P = 26100$
$15P = 2700$
$P = 180$
Required ratio =180:300 :180
=3:5:3

S66. Ans.(e)
Sol.
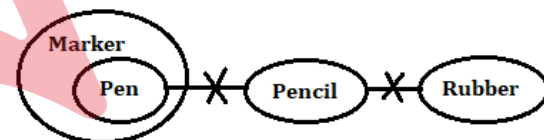
S67. Ans.(a)
Sol.
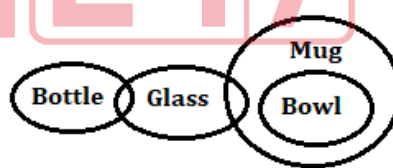
S68. Ans.(c)
Sol.

S69. Ans.(b)
Sol.

S70. Ans.(a)
Sol. From the statement, S lives on one of the floors above 4th floor. Three persons live between S and U who lives three floors below Q. The number of persons live between P and Q is same as the number of persons live between Q and V. We have three possible cases here.

Floor	Persons		
	Case 1	Case 2	Case 3
8			V/P
7		V/P	S
6	V/P	S	Q
5	S	Q	
4	Q		P/V
3		P/V	U
2	P/V	U	
1	U		

T does not live on the floor which is either just above or just below the floor of either P or V. The number of persons live below T is same as the number of persons live above R who lives adjacent to V. With this statement, case 1 and case 3 will eliminate now.
So, the final arrangement is:

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

S71. Ans.(c)
Sol. From the statement, S lives on one of the floors above 4th floor. Three persons live between S and U who lives three floors below Q. The number of persons live between P and Q is same as the number of persons live between Q and V. We have three possible cases here.

Floor	Persons		
	Case 1	Case 2	Case 3
8			V/P
7		V/P	S
6	V/P	S	Q
5	S	Q	
4	Q		P/V
3		P/V	U
2	P/V	U	
1	U		

T does not live on the floor which is either just above or just below the floor of either P or V. The number of persons live below T is same as the number of persons live above R who lives adjacent to V. With this statement, case 1 and case 3 will eliminate now.
So, the final arrangement is:

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

S72. Ans.(d)
Sol. From the statement, S lives on one of the floors above 4th floor. Three persons live between S and U who lives three floors below Q. The number of persons live between P and Q is same as the number of persons live between Q and V. We have three possible cases here.

Floor	Persons		
	Case 1	Case 2	Case 3
8			V/P
7		V/P	S
6	V/P	S	Q
5	S	Q	
4	Q		P/V
3		P/V	U
2	P/V	U	
1	U		

T does not live on the floor which is either just above or just below the floor of either P or V. The number of persons live below T is same as the number of persons live above R who lives adjacent to V. With this statement, case 1 and case 3 will eliminate now.
So, the final arrangement is:

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

S73. Ans.(b)
Sol. From the statement, S lives on one of the floors above 4th floor. Three persons live between S and U who lives three floors below Q. The number of persons live between P and Q is same as the number of persons live between Q and V. We have three possible cases here.

Floor	Persons		
	Case 1	Case 2	Case 3
8			V/P
7		V/P	S
6	V/P	S	Q
5	S	Q	
4	Q		P/V
3		P/V	U
2	P/V	U	
1	U		

T does not live on the floor which is either just above or just below the floor of either P or V. The number of persons live below T is same as the number of persons live above R who lives adjacent to V. With this statement, case 1 and case 3 will eliminate now.
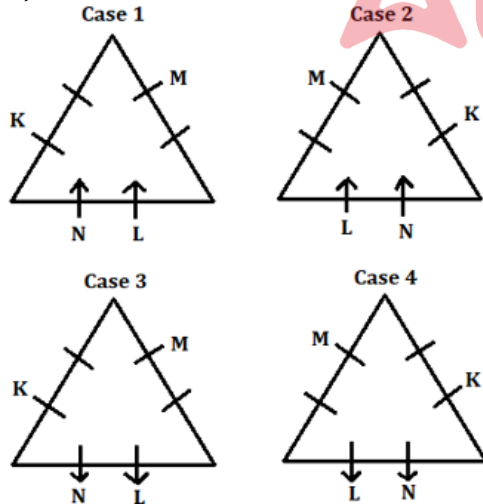So, the final arrangement is:

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

S74. Ans.(c)
Sol. From the statement, S lives on one of the floors above 4th floor. Three persons live between S and U who lives three floors below Q. The number of persons live between P and Q is same as the number of persons live between Q and V. We have three possible cases here.

Floor	Persons		
	Case 1	Case 2	Case 3
8			V/P
7		V/P	S
6	V/P	S	Q
5	S	Q	
4	Q		P/V
3		P/V	U
2	P/V	U	
1	U		

T does not live on the floor which is either just above or just below the floor of either P or V. The number of persons live below T is same as the number of persons live above R who lives adjacent to V. With this statement, case 1 and case 3 will eliminate now.
So, the final arrangement is:

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

S75. Ans.(c)
Sol. Mid persons= (21+27) – (36+2) = 10

S76. Ans.(a)
Sol. Form the statement, M sits third to the left of N. we have four possible cases. Only one person sits between M and K who does not sit on the same side of N. L is not an immediate neighbour of M. L faces same direction as the one who sits adjacent to L on the same side of L.
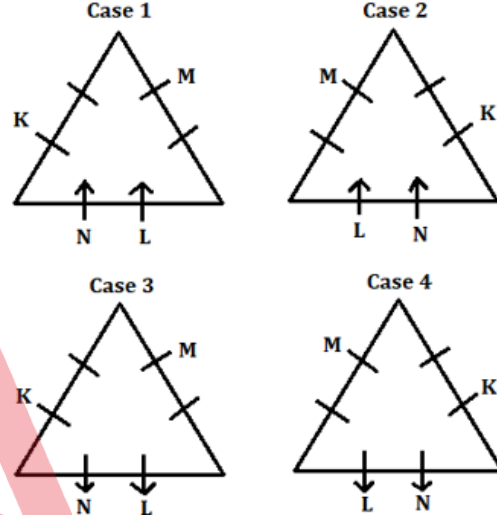

Two persons sit between L and P and both of them face the same direction. Immediate neighbours of M face the same direction but opposite to K who does not sit immediate left of N. Case 1 and case 4 will eliminate here. Both M and O face opposite direction to each other. The number of persons face outside is half of the number of persons face inside the table. With this statement case 3 will eliminate here. So, the final arrangement is:
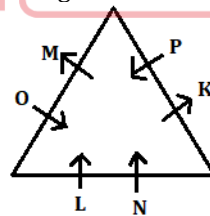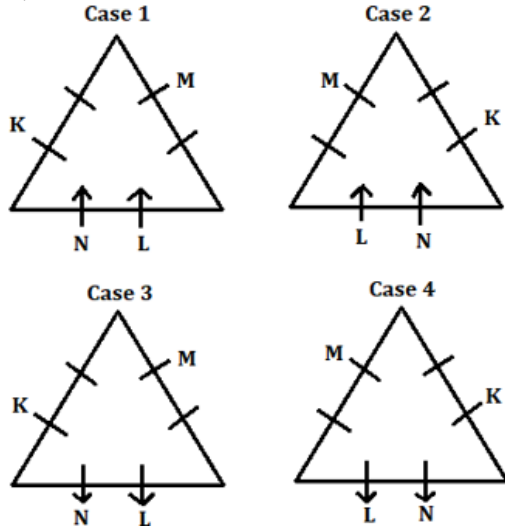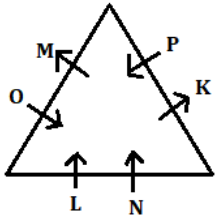

S77. Ans.(c)
Sol. Form the statement, M sits third to the left of N. we have four possible cases. Only one person sits between M and K who does not sit on the same side of N. L is not an immediate neighbour of M. L faces same direction as the one who sits adjacent to L on the same side of L.
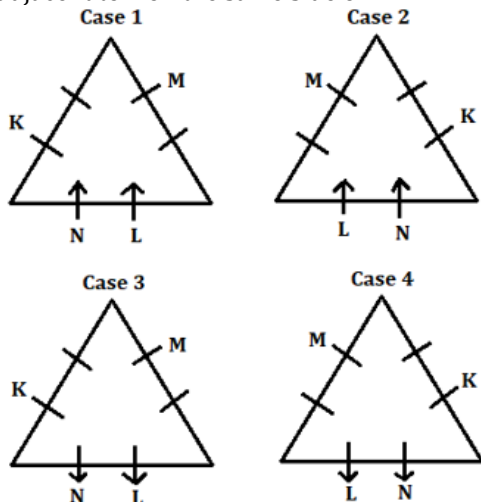

Two persons sit between L and P and both of them face the same direction. Immediate neighbours of M face the same direction but opposite to K who does not sit immediate left of N. Case 1 and case 4 will eliminate here. Both M and O face opposite direction to each other. The number of persons face outside is half of the number of persons face inside the table. With this statement case 3 will eliminate here. So, the final arrangement is:

S78. Ans.(b)
Sol. Form the statement, M sits third to the left of N. we have four possible cases. Only one person sits between M and K who does not sit on the same side of N. L is not an immediate neighbour of M. L faces same direction as the one who sits adjacent to L on the same side of L.

Case 1   Case 2

Case 3   Case 4

Two persons sit between L and P and both of them face the same direction. Immediate neighbours of M face the same direction but opposite to K who does not sit immediate left of N. Case 1 and case 4 will eliminate here. Both M and O face opposite direction to each other. The number of persons face outside is half of the number of persons face inside the table. With this statement case 3 will eliminate here. So, the final arrangement is:
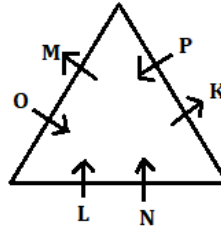
S79. Ans.(d)
Sol. Form the statement, M sits third to the left of N. we have four possible cases. Only one person sits between M and K who does not sit on the same side of N. L is not an immediate neighbour of M. L faces same direction as the one who sits adjacent to L on the same side of L.
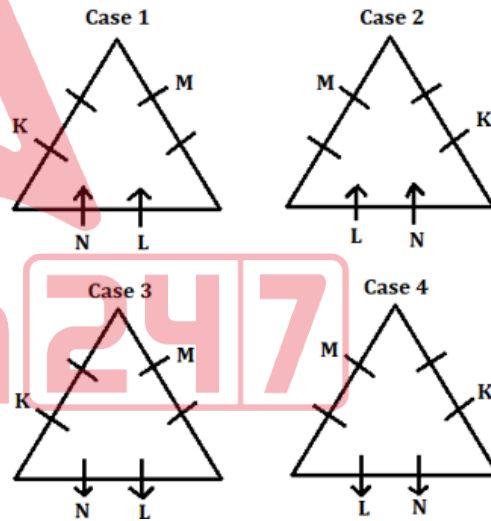
Case 1   Case 2

Case 3   Case 4

Two persons sit between L and P and both of them face the same direction. Immediate neighbours of M face the same direction but opposite to K who does not sit immediate left of N. Case 1 and case 4 will eliminate here. Both M and O face opposite direction to each other. The number of persons face outside is half of the number of persons face inside the table. With this statement case 3 will eliminate here. So, the final arrangement is:
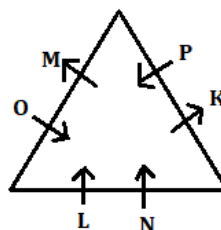
S80. Ans.(e)
Sol. Form the statement, M sits third to the left of N. we have four possible cases. Only one person sits between M and K who does not sit on the same side of N. L is not an immediate neighbour of M. L faces same direction as the one who sits adjacent to L on the same side of L.

Case 1   Case 2

Case 3   Case 4

Two persons sit between L and P and both of them face the same direction. Immediate neighbours of M face the same direction but opposite to K who does not sit immediate left of N. Case 1 and case 4 will eliminate here. Both M and O face opposite direction to each other. The number of persons face outside is half of the number of persons face inside the table. With this statement case 3 will eliminate here. So, the final arrangement is:

S81. Ans.(a)
Sol.

Words	Codes
Some	ic
IPS	sv
are	ol
IAS	qw
All	ab
SDM	Rh
Officers	Xk
Will/become/DM	dj/yu/ea

S82. Ans.(d)
Sol.

Words	Codes
Some	ic
IPS	sv
are	ol
IAS	qw
All	ab
SDM	Rh
Officers	Xk
Will/become/DM	dj/yu/ea

S83. Ans.(c)
Sol.

Words	Codes
Some	ic
IPS	sv
are	ol
IAS	qw
All	ab
SDM	Rh
Officers	Xk
Will/become/DM	dj/yu/ea

S84. Ans.(e)
Sol.

Words	Codes
Some	ic
IPS	sv
are	ol
IAS	qw
All	ab
SDM	Rh
Officers	Xk
Will/become/DM	dj/yu/ea

S85. Ans.(d)
Sol. I. E > C (False) II. G < D(False)

S86. Ans.(a)
Sol. I. V > U (True) II. C ≥ G (False)

S87. Ans.(b)
Sol. More than six boxes are placed below V. Here, we have three possibilities. The number of boxes placed below S is same as the number of boxes placed above V. T is placed three places above S. Z is placed exactly between V and T.

Boxes		
Case 1	Case 2	Case 3
		V
	V	
V		
Z	Z	Z
T		
	T	
		T
S		
	S	
		S

Four boxes are placed between D and G which is placed below D. K is placed immediate above Q and both of them are placed above G. Case 1 will eliminate here. C is not placed adjacent to V and B. Case 2 will eliminate here. So, the final arrangement is:

Boxes
V
B
D
Z
K
Q
T
G
C
S

S88. Ans.(c)
Sol. More than six boxes are placed below V. Here, we have three possibilities. The number of boxes placed below S is same as the number of boxes placed above V. T is placed three places above S. Z is placed exactly between V and T.

Boxes		
Case 1	Case 2	Case 3
		V
	V	
V		
Z	Z	Z
T		
	T	
		T
S		
	S	
		S

Four boxes are placed between D and G which is placed below D. K is placed immediate above Q and both of them are placed above G. Case 1 will eliminate here. C is not placed adjacent to V and B. Case 2 will eliminate here. So, the final arrangement is:

Boxes
V
B
D
Z
K
Q
T
G
C
S

S89. Ans.(d)
Sol. More than six boxes are placed below V. Here, we have three possibilities. The number of boxes placed below S is same as the number of boxes placed above V. T is placed three places above S. Z is placed exactly between V and T.

Boxes		
Case 1	Case 2	Case 3
		V
	V	
V		
Z	Z	Z
T		
	T	
		T
S		
	S	
		S

Four boxes are placed between D and G which is placed below D. K is placed immediate above Q and both of them are placed above G. Case 1 will eliminate here. C is not placed adjacent to V and B. Case 2 will eliminate here. So, the final arrangement is:

Boxes
V
B
D
Z
K
Q
T
G
C
S

S90. Ans.(c)
Sol. More than six boxes are placed below V. Here, we have three possibilities. The number of boxes placed below S is same as the number of boxes placed above V. T is placed three places above S. Z is placed exactly between V and T.
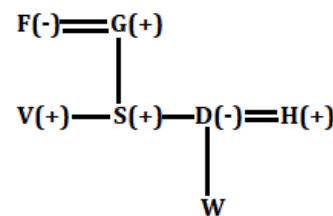
Boxes		
Case 1	Case 2	Case 3
		V
	V	
V		
Z	Z	Z
T		
	T	
		T
S		
	S	
		S

Four boxes are placed between D and G which is placed below D. K is placed immediate above Q and both of them are placed above G. Case 1 will eliminate here. C is not placed adjacent to V and B. Case 2 will eliminate here. So, the final arrangement is:
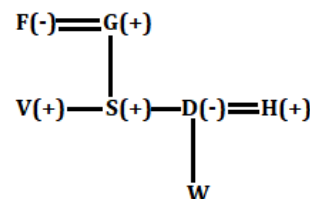
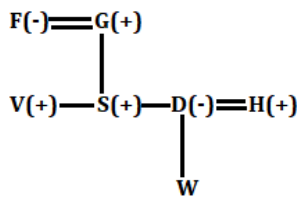| Boxes |
|---|
| V |
| B |
| D |
| Z |
| K |
| Q |
| T |
| G |
| C |
| S |

S91. Ans.(e)
Sol. More than six boxes are placed below V. Here, we have three possibilities. The number of boxes placed below S is same as the number of boxes placed above V. T is placed three places above S. Z is placed exactly between V and T.

Boxes		
Case 1	Case 2	Case 3
		V
	V	
V		
Z	Z	Z
T		
	T	
		T
S		
	S	
		S

Four boxes are placed between D and G which is placed below D. K is placed immediate above Q and both of them are placed above G. Case 1 will eliminate here. C is not placed adjacent to V and B. Case 2 will eliminate here. So, the final arrangement is:

Boxes
V
B
D
Z
K
Q
T
G
C
S

S92. Ans.(b)
Sol.

F(-)═══G(+)
          |
V(+)───S(+)───D(-)═══H(+)
          |
          W

S93. Ans.(a)
Sol.

F(-)═══G(+)
          |
V(+)───S(+)───D(-)═══H(+)
          |
          W

S94. Ans.(e)
Sol.

F(-)═══G(+)
           |
V(+)──S(+)──D(-)═══H(+)
           |
           W

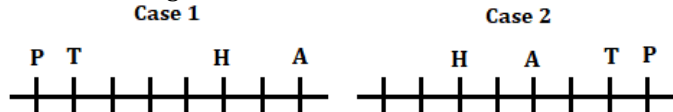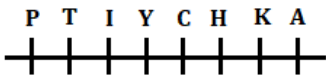**S95. Ans.(b)**
Sol. From the statements, T is the only neighbour of P, we have two possible cases. Four persons sit between P and H. A sits second to the right of H.
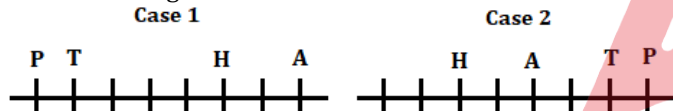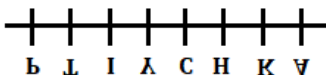
Case 1   Case 2
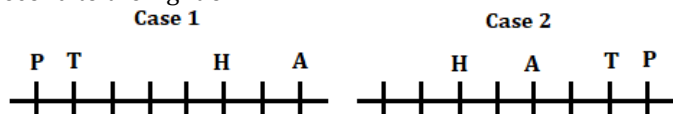P T   H A   H A   T P

Y is not an immediate neighbour of H and T. I sits fourth to the left of K. C does not sit to the right of H. With this statement case 2 will eliminate now. So, the final arrangement is:

P T I Y C H K A

S96. Ans.(c)
Sol. From the statements, T is the only neighbour of P, we have two possible cases. Four persons sit between P and H. A sits second to the right of H.

Case 1   Case 2
P T   H A   H A   T P

Y is not an immediate neighbour of H and T. I sits fourth to the left of K. C does not sit to the right of H. With this statement case 2 will eliminate now. So, the final arrangement is:
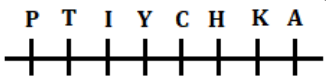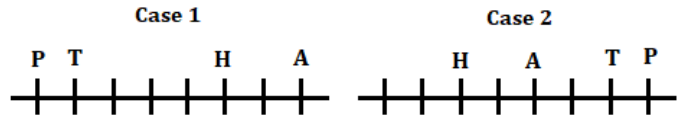
Ь Τ I Υ C H Κ Α

S97. Ans.(d)
Sol. From the statements, T is the only neighbour of P, we have two possible cases. Four persons sit between P and H. A sits second to the right of H.

Case 1   Case 2
P T   H A   H A   T P

Y is not an immediate neighbour of H and T. I sits fourth to the left of K. C does not sit to the right of H. With this statement case 2 will eliminate now. So, the final arrangement is:
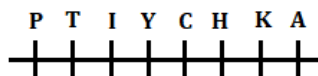
P T I Y C H K A

S98. Ans.(c)
Sol. From the statements, T is the only neighbour of P, we have two possible cases. Four persons sit between P and H. A sits second to the right of H.

Case 1   Case 2
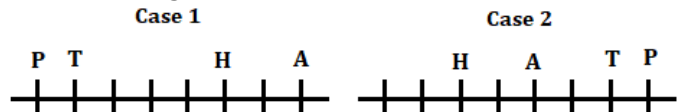P T   H A   H A   T P

Y is not an immediate neighbour of H and T. I sits fourth to the left of K. C does not sit to the right of H. With this statement case 2 will eliminate now. So, the final arrangement is:
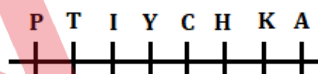
P T I Y C H K A

S99. Ans.(d)
Sol. From the statements, T is the only neighbour of P, we have two possible cases. Four persons sit between P and H. A sits second to the right of H.

Case 1   Case 2
P T   H A   H A   T P

Y is not an immediate neighbour of H and T. I sits fourth to the left of K. C does not sit to the right of H. With this statement case 2 will eliminate now. So, the final arrangement is:

P T I Y C H K A

S100. Ans.(d)
Sol.

E X P R E S S I O N S