NICL Assistant Previous Year Paper (2015)

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

Human beings and nature have a very special relationship. Mother Nature has nurtured and nourished us. The first civilizations were established on the banks of rivers. Societies that live in harmony with nature **flourish** and prosper. Today, human society stands at an important crossroads. The path that we take hereon will not only determine our well-being but also that of the generations who will inhabit our planet after us. The imbalances between our greed and necessities have led to grave ecological imbalances. We can either accept this, go ahead with things as if it is business as usual, or we can take corrective actions.

Three things will determine how we as a society can bring a positive change. The first is internal consciousness. For that, there is no better place to look than our glorious past. Respect for nature is at the core of India's traditions. The Atharvaveda contains the Prithvi Sukta, which contains unparalleled knowledge about nature and the environment. It is beautifully written in Atharvaveda : Salutations to Mother Earth. Leading lifestyles that are harmonious and sustainable are a part of our ethos. Once we realize how we are flag bearers of a rich tradition, it will automatically have a positive impact on our actions. The second aspect is public awareness. We need to talk, write, debate, discuss and deliberate as much as possible on questions relating to the environment. At the same time, it is vital to encourage research and **innovation** on subjects relating to the environment. This is when more people will know about the pressing challenges of our times and ways to mitigate them. When we as a society are aware of our strong links with environmental conservation and talk about it regularly, we will automatically be proactive in working towards a sustainable environment. We see proactiveness in the Swachh Bharat Mission, which is directly linked to a sustainable future. With the blessings of the people of India, over 85 million households now have access to toilets for the first time. Over 400 million Indians no longer have to defecate in the open. Sanitation coverage is up from 39% to 95%. These are landmark efforts in the quest of reducing the strain on our natural surroundings. Our country is devoting unparalleled attention to new and renewable sources of energy. Over the last four years, this sector has become more accessible and affordable. The Ujala Yojana has led to the distribution of nearly 31 crore LED bulbs. The costs of LED bulbs have reduced and so have the electricity bills and the CO_2 emissions.

While the world is talking about climate change, the call for climate justice has also reverberated from India. Climate justice is about safeguarding the rights and interests of the poor and marginalized sections of society, who are often the biggest sufferers from the menace of climate change. It is up to us to take on the mantle of global responsibility towards a sustainable future. The world needs to shift to a paradigm of environmental philosophy that is anchored in environmental consciousness rather than merely in government regulations. Individuals and organizations who are working assiduously in this direction have become the harbingers of a monumental change in our society. Together, we will create a clean environment that will be the cornerstone of human empowerment!

Q1. According to the author, what has led to the serious ecological imbalance in nature?
(a) Poor and marginalized section of the society.
(b) The cost of LED bulbs and Co2 emissions
(c) Volcanic eruptions.
(d) Imbalance between our greed and necessities.
(e) All of these.

Q2. What are some of the specifics of Atharva Veda?
(a) Description about working towards a sustainable environment.
(b) How to bring effective changes in the society.
(c) Exceptional knowledge about nature and the environment.
(d) Elaboration of human empowerment.
(e) Consciousness about human mind.

Q3. When shall the subjects related to environment be encouraged?
(a) Over-harvesting of natural resources.
(b) When there will be public awareness, discussions, talks, debates on questions relating to the environment.
(c) Choosing energy efficient appliances.
(d) By promoting climate justice.
(e) All of these.

Q4. What are some of the landmark efforts in the quest to reduce strain on environment as mentioned in the passage?
(a) Leading lifestyles that are sustainable and harmonious.
(b) Focus on new and renewable sources of energy.
(c) Sanitation coverage is up from 39% to 95%.
(d) Both (b) and (c)
(e) Both (a) and (b)

Q5. What is/are the factor/(s) to which the methodology of environmental philosophy is anchored?
(a) Government Regulations
(b) Environmental Consciousness
(c) Safeguarding the rights and interests of the poor.
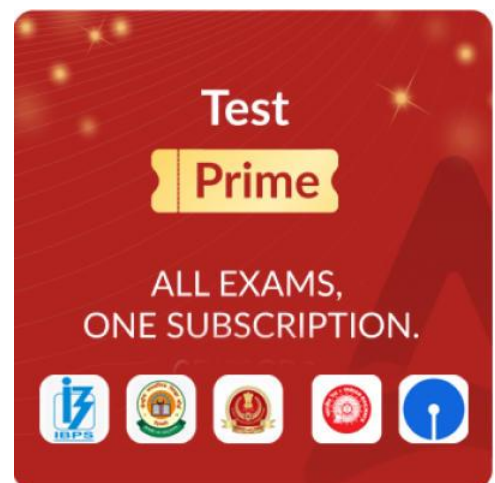(d) Both (a) and (b)
(e) Both (b) and (c)

Q6. What can be the most appropriate title of the passage?
(a) Climate Justice
(b) In Harmony with Mother Nature
(c) Imbalance in nature
(d) Human empowerment
(e) Environmental Conservation

Q7. What is the antonym of the given word?
Flourish
(a) Thrive
(b) Prosper
(c) Develop
(d) Bloom
(e) Shrink

Q8. What is the synonym of the given word?
Innovation
(a) Stagnation
(b) Novelty
(c) Deterioration
(d) Vocation
(e) Imitation

Directions (9-10): In each of the questions given below five words are given in bold. These five words may or may not be in their correct position. The sentence is then followed by options with the correct combination of words that should interchange with each other in order to make the sentence grammatically and contextually correct. Find the correct combination of the words that replace each other.

Q9. India has (A) **cases** to become the global (B) **performing** in the number of new daily (C) **managed** of COVID-19 and the worst (D) **leader** of all major (E) **economies** during the pandemic so far.
(a) A-D & B-E
(b) C-E
(c) B-D & C-A
(d) E-A & B-C
(e) No interchange required.

Q10. The good rabi (A) **revive** and very good monsoon provided some (B) **respite** in agriculture, but with (C) **incomes** down, farm prices are unlikely to (D) **harvest** and ensure (E) **sufficient** returns for cultivators over the year.
(a) B-E
(b) A-D
(c) E-A & B-C
(d) B-D & C-A
(e) No interchange required.

Directions (11-15): In the following questions each sentence is divided in five parts. Read each sentence to find out if there is any error in any of the parts. The error, if any will be in one part of the sentence. The corresponding letter of that part is the answer. If the given sentence is grammatically and contextually correct, then choose option "No error" as answer.

Q11. Coronavirus-hit domestic aviation industry (A)/ require a capital infusion of around $5 billion (B)/ to keep it afloat as expected consolidated (C)/ industry losses may stand at $6-6.5 billion. (D)
(a) D
(b) B
(c) C
(d) A
(e) No Error

Q12. Budget carrier IndiGo, which is one (A)/ of the two listed airlines along (B)/ with SpiceJet in India, reported (C)/ its highest ever quarterly loss. (D)
(a) D
(b) B
(c) C
(d) A
(e) No Error

Q13. The Brown County Sheriff's Office is (A)/ trying to identify four people who (B)/ rented vehicles in the Green Bay area and (C)/ than stole from stores in Wisconsin and Minnesota. (D)
(a) D
(b) B
(c) C
(d) A
(e) No Error

Q14. With 3,555 more people (A)/ testing corona positive on (B)/ Wednesday, the corona tally (C)/ in the State has raised to 1,15,279. (D)
(a) D
(b) B
(c) C
(d) A
(e) No Error

Q15. Okra is not widely distributed (A)/ outside the ethnic markets, (B)/ mostly because consumers (C)/ don't know to cook it. (D)
(a) D
(b) B
(c) C
(d) A
(e) No Error.

Directions (16-20): In each of the given questions, few words have been highlighted. One of the highlighted words may be incorrectly spelt. Identify the word that has been spelt incorrectly and mark that as your answer. If none of the highlighted words have been spelt incorrectly, mark option "All are correct", as your answer.

Q16. The **excutive** branch has expanded its power **globally**, in the wake of the **pandemic**, and not rarely, using it as a **facade** for aggrandisement.
(a) excutive
(b) globally
(c) pandemic
(d) facade
(e) All are correct.

Q17. The race to a **vaccine** is a **relay** — at every stage, there are people passing on the **bation**, and it's the government's responsibility to **grasp** it at the last mile.
(a) vaccine
(b) relay
(c) bation
(d) grasp
(e) All are correct.

Q18. As several vaccine efforts are **progressing** at **varying** paces, globally, concerns about access to a vaccine in the future have **crept** into the **narative**.
(a) progressing
(b) varying
(c) crept
(d) narative
(e) All are correct.

Q19. It may be **assumed** that the **knowledge** and wherewithal to run a full-scale **vacinnation** programme rests with the health **administration** — both at the central and the State level.
(a) assumed
(b) knowledge
(c) vacinnation
(d) administration
(e) All are correct.

Q20. In **response**, our armed forces have made **appropriate** counter deployments in these areas to **ensure** that India's security interests are fully **protracted**.
(a) Response
(b) Appropriate
(c) Ensure
(d) Protracted
(e) All are correct

Directions (21-25): In each of the question given below, a statement has been given with a blank. Five words have been given in the options following the statement. Choose the most appropriate word that could fit in the statement to make it contextually meaningful and grammatically correct.

Q21. Factory output continued to contract in July, _____ marginally slower than in June, reflecting the depressed economic conditions as the pandemic rages on.
(a) Notwithstanding
(b) Subsequently
(c) Simultaneously
(d) Nevertheless
(e) Albeit

Q22. The manufacture of pharmaceuticals climbed 22% in July, making it the _____ product to post an expansion of 1.8% over April-July.
(a) Suffix
(b) System
(c) Solitary
(d) Stiffen
(e) Solidarity

Q23. In our _____ with managing the COVID-19 pandemic, we should not lose sight of special issues that may pose problems for women in the reproductive age group.
(a) Persecution
(b) Preoccupation
(c) Prohibition
(d) Premonition
(e) None of these.

Q24. The ongoing crisis in eastern Ladakh has raised many issues on the range and _____ of India-China relations.
(a) Transitional
(b) Tranquility
(c) Transient
(d) Trajectory
(e) None of these.

Q25. Some experts argue that the _____ of the current problem lies in the first agreement signed between India and China in 1993.
(a) Gerund
(b) Germane
(c) Genesis
(d) Genetics
(e) None of these.

Directions (26-30): Rearrange the following sentences in the proper sequence to form a meaningful paragraph and then answer the questions given below.
(A) Globally, it took roughly 45 days for the first 100,000 cases. It is likely to take nine days for the next 100,000.
(B) That is how epidemics work — they gather steam as infected individuals go on to infect even more people.
(C) Could this really be the case that we have fared better than everyone else?
(D) As the COVID-19 pandemic fells country after country, many in India are wondering if we are somehow different.
(E) But the confirmed cases in India, as of today stand at 158, much lower than small countries such as Iceland (250).
(F) The global death count is now doubling every nine days and stands at 8,248, with 207,518 confirmed cases.

Q26. Which of the following statement will be the **second** statement after rearrangement?
(a) A
(b) C
(c) B
(d) F
(e) E

Q27. Which of the following statement will be the **THIRD** statement after rearrangement?
(a) E
(b) C
(c) D
(d) F
(e) B

Q28. Which of the following statement will be the **last** statement after rearrangement?
(a) B
(b) C
(c) D
(d) E
(e) A

Q29. Which of the following statement will be the **first** statement after rearrangement?
(a) F
(b) C
(c) A
(d) D
(e) E

Q30. Which of the following statement will be the **fourth** statement after rearrangement?
(a) F
(b) C
(c) B
(d) D
(e) E

Directions (31-35): Study the following alphanumeric - symbol series carefully and answer the questions given below:
2 F # G 4 @ D 7 E G * 4 3 B D ^ 2 E 4 5 A F 4 D

Q31. If the 12 elements from the left end in the given series is reversed then which among the following element is 15ᵗʰ element from the right end?
(a) D
(b) B
(c) #
(d) F
(e) None of these

Q32. How many numbers are there in the series which are immediately preceded by a symbol and immediately followed by a consonant?
(a) One
(b) None
(c) Two
(d) Three
(e) None of these

Q33. What will the sum of 2nd prime number in series from the left end and 4th number in series from the right end?
(a) 10
(b) 9
(c) 8
(d) 11
(e) None of these

Q34. How many symbols are there to the left of the element which is 5th from the right end?
(a) One
(b) Three
(c) Two
(d) More than three
(e) None of these

Q35. Which of the following element is sixth to the left of the element which is eighth from the right end?
(a) *
(b) 4
(c) 3
(d) G
(e) None of these

Directions (36-39): In each of the questions below, some statements are given 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.

Q36. Statements: All Elephants are Mammals
Some Mammals are Herbivores
Some Dumbo is an Elephants
Conclusions: I. All Dumbo is a Mammals
II. Some Dumbo is Herbivores
(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 conclusions I and II follow

Q37. Statements: No reptiles are insects
All spider are insects
Some Arachne is a spider
Conclusions: I. All Arachne is a Reptiles
II. Some Arachne are Insects
(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 conclusions I and II follow

Q38. Statements: Some Rose are Red
All Red is Beautiful
Only a few Beautiful is Good
Conclusions: I. Some Rose is Beautiful
II. No Good is Rose
(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 conclusions I and II follow

Q39. Statements: No buses are trains
All trains are vehicles
Only a few Comets is Vehicles
**Conclusions: I.** Some Comets are not bus
II. Some trains can be Comets
(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 conclusions I and II follow

Directions (40-44): Study the following information carefully and answer the questions given below:
Five persons i.e., Ramesh, Rajesh, Ravi, Rakesh and Raju live in five different countries i.e., USA, UK, India, Japan and Russia. They also visit different cities (Tokyo, Austin, California, Delhi and Moscow) for holiday. All the information is not necessarily in the same order.
Ramesh who lives in the USA does not visit for a holiday to Tokyo. Raju visits for the holiday to California. Rakesh does not live in Russia. The person who lives in Russia visits for a holiday to Tokyo. The person who visits for a holiday to Delhi does not live in India. Rakesh visits for a holiday to Moscow. Ravi neither lives in Russia nor visits for a holiday to Delhi. The person who lives in Japan neither visits California nor Moscow. Raju does not live in India.
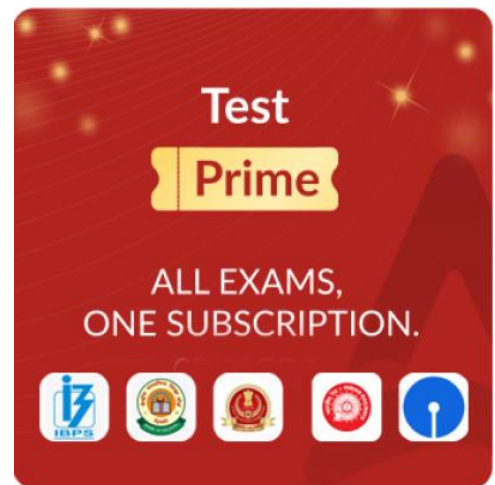
Q40. Who among the following person lives in the UK?
(a) Rakesh
(b) Raju
(c) The person who visits for a holiday to Delhi
(d) The person who visits for a holiday to Austin
(e) None of these

Q41. Where does Rakesh live?
(a) India
(b) Either USA or India
(c) UK
(d) Japan
(e) None of these

Q42. Who among the following person visits for a holiday to Austin?
(a) The person who lives in the USA
(b) Ravi
(c) Rajesh
(d) The person who lives in India
(e) Cannot be determined

Q43. Which of the following combination(s) is/are correct?
(a) Raju - Moscow
(b) Ramesh – California
(c) Japan –Austin
(d) Rajesh- Austin
(e) All are correct

Q44. Who among the following person lives in India?
(a) None of these
(b) Rajesh
(c) Rakesh
(d) Ravi
(e) The person who visits for a holiday to Austin

Q45. If we form a four-letter meaningful word with the 3ʳᵈ, 5ᵗʰ, 6ᵗʰ and 9ᵗʰ letter from the left end of the word "TRANSFORM" (Using each letter once), then what would be the third letter of that meaningful word? If no meaningful word is formed, then mark the answer as X. If more than one meaningful word is formed then mark the answer as Z.
(a) Z
(b) F
(c) A
(d) X
(e) S

Directions (46-48): Study the following information carefully and answer the questions given below.
There are eight members in a family of three generation. A is uncle of X. L is mother of X. L has no siblings. Y is grandchild of M. V is brother-in-law of X and has no child. X and V are of different gender. X has no siblings. Z is cousin of X. There are only two females in the family. K is one of the members.

Q46. How Y is related to V?
(a) Nephew
(b) Niece
(c) Either Nephew or Niece
(d) Son
(e) None of these

Q47. Who among the following is Son-in-Law of L?
(a) V
(b) Z
(c) K
(d) Cannot be determined
(e) None of these

Q48. How M is related to Z?
(a) Uncle
(b) Brother
(c) Father
(d) Grandfather
(e) None of these

Directions (49-51): Study the following information carefully and answer the questions given below:
Seven persons are arranged according to their payment for airplane ticket (in descending order) from left to right. Only one person pays more than C. Two persons pay between C and U. D either pays just higher amount or just lower amount than U. As many persons pays more amount than U as pay less amount than Z, B pays more amount than I. B does not pay the highest amount.
D does not pay the second lowest amount. Person who pays second highest amount will have to pay Rs. 1500. M is one of the persons.

Q49. If B pays Rs. 600 less than the amount paid by C then how much amount will be paid by I?
(a) Rs. 800
(b) Rs. 750
(c) Rs .1000
(d) Either Rs. 800 or Rs. 750
(e) None of these

Q50. How many persons buys costlier tickets than M?
(a) Three
(b) Two
(c) One
(d) None
(e) None of these

Q51. Who among the following persons has as many persons buys before him as after him?
(a) Z
(b) M
(c) D
(d) U
(e) None of these

Q52. How many such pairs of letters are there in the given word "COMPETITIVE", each of which has as many letters between them as they have in English alphabetical series (In forward and backward direction)?
(a) Four
(b) Three
(c) Five
(d) More than five
(e) None of these

Directions (53-57): Study the following information carefully and answer the questions given below:
Eight persons- D, J, E, H, F, L, K and A sits in a row such that all of them face towards north but not necessarily in the same order. A sits third to the right of L. Either A or L sits at one of the ends. One person sits between H and L. As many persons sit between H and A as between F and J. Neither F nor J sits adjacent to L. F sits to the left of H. Neither F nor J sits at any of the end. More than one person sit to the left of J. As many persons sit to the left of J as to the right of E. More than two persons sit between L and D.

Q53. How many persons sit between F and E?
(a) One
(b) Three
(c) Two
(d) Four
(e) None of these

Q54. What is the position of D with respect to K?
(a) Immediate left
(b) Immediate right
(c) Third to the left
(d) Second to the right
(e) None of these

Q55. Who among the following person sits third to the right of J?
(a) H
(b) E
(c) L
(d) A
(e) None of these

Q56. Which among the following statement(s) is/are true?
(a) Four persons sit between F and E
(b) F sits third to the left of K
(c) D sits at one of the ends
(d) K and L doesn't sit adjacent to each other
(e) All are true

Q57. How many persons sits to the left of H?
(a) One
(b) More than three
(c) Three
(d) Two
(e) None of these

Directions (58-60): Study the following information carefully and answer the questions accordingly. In a certain code language,
"Exam preparation boost up" is coded as "tp wa ju ca"
"Boost up your speed" is coded as "ca xq vd tp"
"Speed and accuracy preparation" is coded as "ju mk lf xq"
"Boost and bank" is coded as "sr mk ca"

Q58. What is the code for the word "Preparation"?
(a) wa
(b) ju
(c) ca
(d) lf
(e) Can't be determined

Q59. What is the code for the word "Speed"?
(a) sr
(b) wa
(c) tp
(d) xq
(e) None of these

Q60. What is the code for the words "Boost Accuracy"?
(a) ca sr
(b) ju lf
(c) lf ca
(d) Can't be determined
(e) tp lf

Directions (61-65): Study the following information carefully and answer the questions given below.
Seven persons A, B, C, D, E, F and G sit around a circular table but not necessarily in the same order. Some of them are facing towards the center of the table while others are facing away from the center of the table. Not more than two persons sit adjacent to each other faces same direction.
C sits 2nd to the left of G. One person sits between C and B. F sits 3rd to the right of B. Two persons sit between F and A who is facing in opposite direction as of G. D and A sits immediate right to each other. D is facing towards the center of the table. Immediate neighbours of C face same in direction but opposite to C.

Q61. Who among the following person sits exactly between C and B?
(a) A
(b) D
(c) E
(d) F
(e) G

Q62. Which of the following two pair of persons are facing towards the center of the table?
(a) E and G
(b) B and C
(c) C and A
(d) F and E
(e) All of these

Q63. Who sits 4th to the left of G?
(a) A
(b) B
(c) E
(d) D
(e) F

Q64. How many persons sit between E and D when counted from the right of E?
(a) One
(b) Three
(c) Four
(d) Two
(e) None

Q65. Four of the following five are alike in certain way and thus forms a group, then who among the following doesn't belong to that group?
(a) A
(b) B
(c) C
(d) D
(e) G

Directions (66-80): What will come in the place of question (?) mark in following questions.

Q66. 20% of 78 + ? = 200% of 2^5
(a) 42.4
(b) 48.4
(c) 46.4
(d) 44.4
(e) 56.4

Q67. $? + 3 \times 15.6 = 8\% \ of \ 625$
(a) 2.4
(b) 3.2
(c) 2.8
(d) 3.6
(e) 2.2

Q68. $254 + 312 - ? = 420$
(a) 166
(b) 156
(c) 126
(d) 136
(e) 146

Q69. $3\frac{1}{7} + 5\frac{1}{14} - ? = 5$
(a) $3\frac{3}{14}$
(b) $2\frac{3}{14}$
(c) $3\frac{3}{7}$
(d) $4\frac{3}{7}$
(e) $2\frac{1}{14}$

Q70. $35\% \ of \ ? + 36\% \ of \ 450 = 2 \times 151$
(a) 600
(b) 360
(c) 400
(d) 480
(e) 500

Q71. $40\% \ of \ 525 + 60\% \ of \ 1050 + 1 = ?^2$
(a) 27
(b) 29
(c) 31
(d) 28
(e) 26

Q72. $? \times (12 + 10\% \ of \ 60) = 135$
(a) 5.5
(b) 6.5
(c) 4.5
(d) 5
(e) 7.5

Q73. $12 \times ? + 26 \times 6 = 252$
(a) 8
(b) 4
(c) 6
(d) 12
(e) 14

Q74. $\dfrac{1152}{?} = 60\%$ of $120 + 48\%$ of 250
(a) 18
(b) 2
(c) 4
(d) 6
(e) 8

Q75. $48 \div 5 + ? = 3^3$
(a) 18.4
(b) 15.4
(c) 17.4
(d) 16.4
(e) 12.4

Q76. $326 + 12^2 + ?\%$ of $250 = 520$
(a) 15
(b) 20
(c) 18
(d) 24
(e) 16

Q77. $? \times (12.8 \times 15) = 22^2 - \sqrt{16}$
(a) 1.5
(b) 2.5
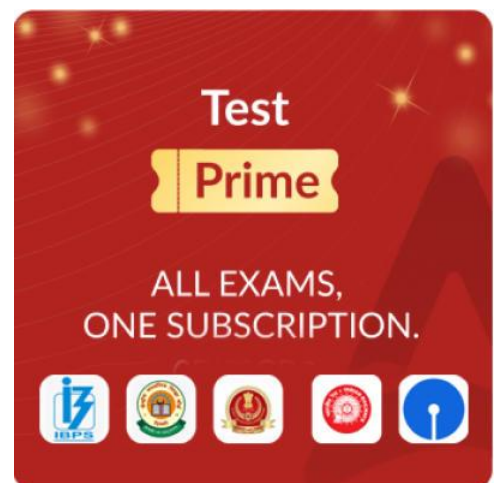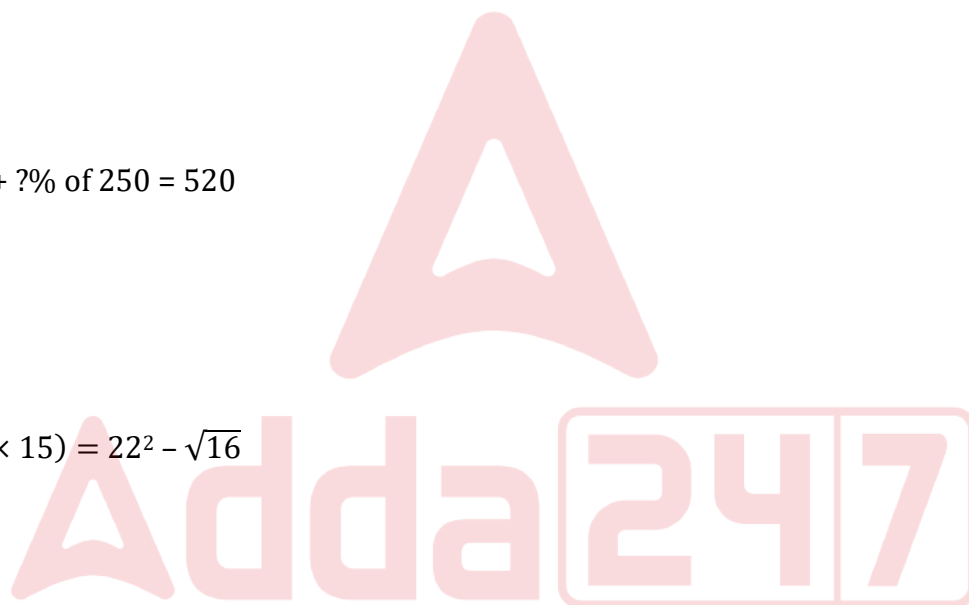(c) 3.5
(d) 0.5
(e) 5.5

Q78. $1\frac{2}{7} + 5\frac{3}{14} = ?^2 - 2\frac{1}{2}$
(a) 5
(b) 4
(c) 3
(d) 7
(e) 10

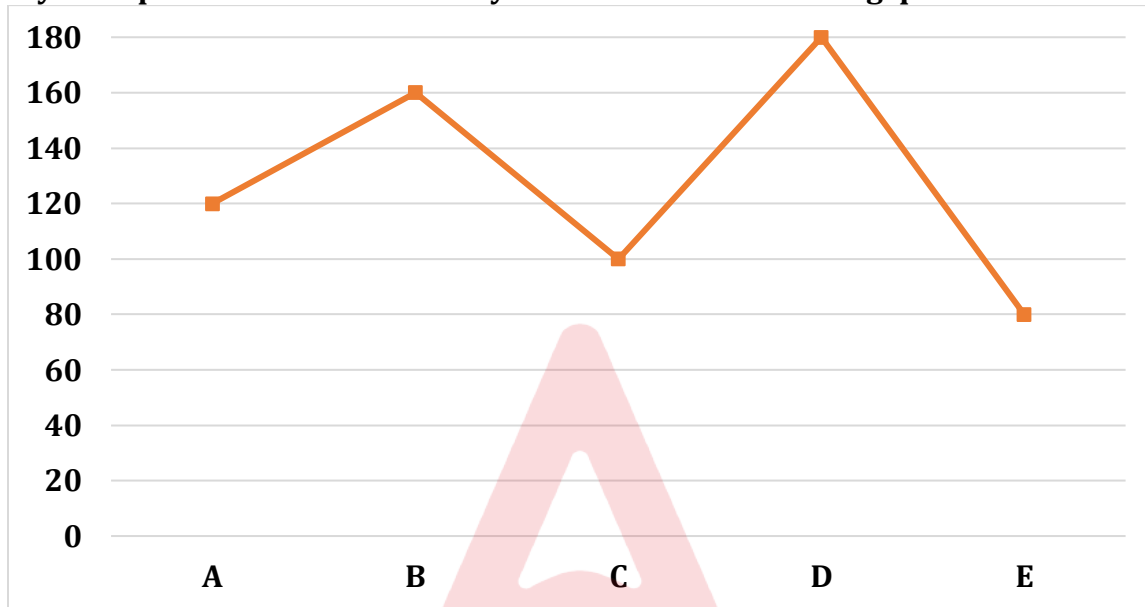**Q79.** 55% of $400 - 18 \times 2 = ?$
(a) 164
(b) 184
(c) 124
(d) 174
(e) 194

Q80. $128 \times 4 - 116 \times 3 = ?$
(a) 124
(b) 174
(c) 164
(d) 144
(e) 134

Direction (81-85): The line graph given below shows total number five (A, B, C, D and E) different items sold by a shop. Read the data carefully and answer the following questions.

Q81. The ratio of items C and E sold by online to that of offline mode is 3 : 2 & 5 : 3 respectively. Find the difference between total item C and E sold by online mode.
(a) 6
(b) 10
(c) 8
(d) 12
(e) 5

Q82. Find the ratio of total number of item A to total number of item D sold by the shop.
(a) 3 : 5
(b) 2 : 5
(c) 1 : 3
(d) 1 : 2
(e) 2 : 3

Q83. If total item X sold by the shop is 50% more than total item B sold by the shop and total item X sold by online mode is 60% of total item X sold by the shop, then find total item X sold by offline mode.
(a) 96
(b) 72
(c) 76
(d) 106
(e) 90

Q84. Total number of item A and E sold by shop is what percent more than total number of items B sold by the shop.
(a) 20%
(b) 25%
(c) 24%
(d) 30%
(e) 40%

Q85. Find the difference between total item C & D sold by the shop and total item B & E sold by the shop.
(a) 40
(b) 50
(c) 30
(d) 20
(e) 10

Q86. A man invested Rs. P at the rate of 10% p.a. on compound interest for two years and gets a total interest of Rs.4410. If he invested Rs. (P + 1000) at 30% p.a. on simple interest for three years, then find the interest received by him?
(a) Rs.19,000
(b) Rs.15000
(c) Rs.19,800
(d) Rs.14,000
(e) Rs.12,000

Q87. Average age of 30 students in a class is 15 years. If the average age of boys is 16 years and the average age of girls is 13 years, then find the number of boys in the class.
(a) 20
(b) 28
(c) 15
(d) 25
(e) 10

Q88. If the income of a person in 2019 is Rs.1,20,000 and it is increased by 15% every year, then find the income of the person in 2021?
(a) 1,52,500
(b) 1,66,600
(c) 1,64,800
(d) 1,50,500
(e) 1,58,700

Q89. A shopkeeper marks up the price of an article by 20% above cost price. He allows $33\frac{1}{3}\%$ discount on mark price and get a loss of Rs.625. If he wants to earn a profit of 40%, then find the selling price of the article.
(a) Rs.4204
(b) Rs.5240
(c) Rs.4375
(d) Rs.4498
(e) Rs.6580

Q90. The perimeter of a rectangle is 32 m. If the ratio of breadth of rectangle to the side of a square is 4:5 and length of the rectangle is 12 m, then find the area of the square (in m²)?
(a) 15
(b) 10
(c) 30
(d) 20
(e) 25

Q91. A and B together can do a piece of work in 20 days, B and C together do the same work in 10 days whereas C and A together can do the same work in 60 days. If all of them work together, then find the time taken to complete the work (A does negative work).
(a) 10 $days$
(b) 18$days$
(c) 15 $days$
(d) 12 $days$
(e) 11 $days$

Q92. The speed of boat in upstream is 40% less than of the speed of boat in downstream. If the boat covers 50 km in downstream in 5 hours, then find the speed of stream and speed boat in still water respectively.
(a) 2 km/hr, 8 km/hr
(b) 8 km/hr , 2 km/hr
(c) 7 km/hr , 3 km/hr
(d) 3 km/hr, 7 km/hr
(e) 5 km/hr , 2 km/hr

Q93. A invested Rs.5000 in a business. After x months, B joined the business with an investment of Rs.4000. At the end of the year, the profit share of B is Rs.3500 out of the total profit of Rs.11,000. Find x?
(a) 4
(b) 5
(c) 3
(d) 2
(e) 6

Q94. The average of twenty numbers is 150. Five new numbers, whose sum is 100 are added to the remaining numbers. Find the average of twenty-five numbers?
(a) 120
(b) 124
(c) 115
(d) 140
(e) 136

Q95. A train, whose length of x meter is running at a speed of 54 km/hr. If the length of a platform is twice the length of the train and train crosses the platform in 45 second, then find the value of x?
(a) 220
(b) 209
(c) 200
(d) 215
(e) 225

Directions (96-100): Find out the missing number in the given number series.

Q96. 11, 16, 23, 32, 43, ?
(a) 54
(b) 50
(c) 56
(d) 47
(e) 59

Q97. 5, 8, 17, 44, 125, ?
(a) 368
(b) 220
(c) 304
(d) 136
(e) 128

Q98. 10, ?, 17, 28, 51, 98
(a) 16
(b) 18
(c) 12
(d) 10
(e) 15

Q99. 2, 10, 30, 68, 130, ?
(a) 200
(b) 222
(c) 190
(d) 207
(e) 185

Q100. 25, 35, 55, 85, 125, ?
(a) 179
(b) 172
(c) 174
(d) 175
(e) 177

Solutions

S1. Ans.(d)
Sol. Option (d) is the appropriate choice. Refer to the first paragraph where it is mentioned that the path that we take hereon will not only determine our well-being but also that of the generations who will inhabit our planet after us. The imbalances between our greed and necessities have led to grave ecological imbalances.

S2. Ans.(c)
Sol. Option (c) is the only suitable answer here. The answer can be directly quoted from second paragraph where the lines are given as, "The Atharvaveda contains the Prithvi Sukta, which contains unparalleled knowledge about nature and the environment. It is beautifully written in Atharvaveda: Salutations to Mother Earth."

S3. Ans.(b)
Sol. The most appropriate answer is option (b). The answer can be referred from third paragraph of the passage where it is mentioned that "We need to talk, write, debate, discuss and deliberate as much as possible on questions relating to the environment. At the same time, it is vital to encourage research and innovation on subjects relating to the environment. This is when more people will know about the pressing challenges of our times and ways to mitigate them."

S4. Ans.(d)
Sol. Option (d) is the appropriate choice as it consists of both the options (b) and (c). Both of these options are mentioned in the third paragraph where it is given that sanitation coverage is up from 39% to 95%. These are landmark efforts in the quest of reducing the strain on our natural surroundings. Our country is devoting unparalleled attention to new and renewable sources of energy. Over the last four years, this sector has become more accessible and affordable.

S5. Ans.(d)
Sol. Option (d) is the most appropriate choice. This can be inferred from the last paragraph of the passage where it is given "The world needs to shift to a paradigm of environmental philosophy that is anchored in environmental consciousness rather than merely in government regulations."

S6. Ans.(b)
Sol. Option (b) is the most suitable title of the passage. This is because whole passage revolves around it and hence we need a clean environment for human empowerment as is said by the first line of the passage that human beings and nature have a very special relationship.

S7. Ans.(e)
Sol. Flourish means grow or develop in a healthy or vigorous way, especially as the result of a particularly congenial environment.
Shrink means shorten.
Thrive means prosper.
Prosper means the same .
Bloom means produce.

S8. Ans.(b)
Sol. Innovation means transformation.
Novelty means the quality of being new, original, or unusual.
Stagnation means the state of not flowing or moving.
Deterioration means degradation.
Vocation means a strong feeling of suitability for a particular career or occupation.
Imitation means the action of using someone or something as a model.

S9. Ans.(c)
Sol. Among the given highlighted words, '**leader**' and '**performing**' must be interchanged to make the statement grammatically correct and meaningful. A similar interchange is required between '**managed**' and '**cases**'. The correct statement thus formed will be:
India has (A) **managed** to become the global (B) **leader** in the number of new daily (C) **cases** of COVID-19 and the worst (D) **performing** of all major (E) **economies** during the pandemic so far.
Hence, option (c) is the most suitable answer choice.

S10. Ans.(b)
Sol. Among the given highlighted words, '**harvest**' and '**revive**' must be interchanged to make the statement grammatically correct and meaningful.
The good rabi (A) **harvest** and very good monsoon provided some (B) **respite** in agriculture, but with (C) **incomes** down, farm prices are unlikely to (D) **revive** and ensure (E) **sufficient** returns for cultivators over the year.
Hence, option (b) is the most suitable answer choice.

S11. Ans.(b)
Sol. Among the given parts of the sentence, the error lies in part (B), where 'require' will be replaced with 'requires' to make the statement grammatically correct. Hence, option (b) is the most suitable answer choice.

S12. Ans.(e)
Sol. The given statement is grammatically correct and does not require any improvement. Hence, option (e) is the most suitable answer choice.

S13. Ans.(a)
Sol. Among the given parts of the sentence, the error lies in part (D), where 'than' must replace 'then'. Hence, option (a) is the most suitable answer choice.

S14. Ans.(a)
Sol. Among the given parts of the sentence, the error lies in part (D), where 'risen' will be used instead of 'raised'. Hence, option (a) is the most suitable answer choice.

S15. Ans.(a)
Sol. Among the given parts of the sentence, the error lies in part (D). Here, the word 'know' cannot be directly followed by an infinitive 'to'. As a way of dealing with someone is mentioned, 'how' will be the appropriate phrase to be used. Therefore, the phrase 'know how to' will be used. Hence, option (a) is the most suitable answer choice.

S16. Ans.(a)
Sol. Among the given highlighted words, 'executive' has been incorrectly spelt as 'excutive'. Hence, option (a) is the most suitable answer choice.
Executive- relating to or having the power to put plans or actions into effect.

S17. Ans.(c)
Sol. Among the given highlighted words, 'baton' has been incorrectly spelt as 'bation'. Hence, option (c) is the most suitable answer choice.
Baton- a short stick or tube passed from runner to runner in a relay race.

S18. Ans.(d)
Sol. Among the given highlighted words, 'narrative' has been incorrectly spelt as 'narative'. Hence, option (c) is the most suitable answer choice.
Narrative- in the form of or concerned with narration.

S19. Ans.(c)
Sol. Among the given highlighted words, 'vaccination' has been incorrectly spelt as 'vaccination'. Hence, option (c) is the most suitable answer choice.
Vaccination- treatment with a vaccine to produce immunity against a disease/ inoculation.

S20. Ans.(d)
Sol. **"Protected"** should be used instead of **"protracted".** Hence, **option (d)** is the right answer choice.
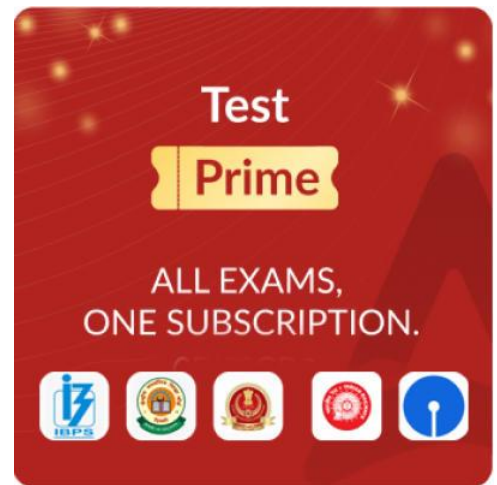
S21. Ans.(e)
Sol. Among the given set of words, the most suitable word to fill in the given blank will be 'albeit'. Hence, option (e) is the most suitable answer choice.
Albeit- though.

S22. Ans.(c)
Sol. Among the given set of words, the most suitable word to fill in the given blank will be 'Solitary'. Hence, option (c) is the most suitable answer choice.
Solitary- single/ only.

S23. Ans.(b)
Sol. Among the given set of words, the most suitable word to fill in the given blank will be 'Preoccupation'. Hence, option (b) is the most suitable answer choice.
Preoccupation- the state or condition of being preoccupied or engrossed with something.

S24. Ans.(d)
Sol. Among the given set of words, the most suitable word to fill in the given blank will be 'Trajectory'. Hence, option (d) is the most suitable answer choice.
Trajectory- the path followed by a projectile flying or an object moving under the action of given forces.

S25. Ans.(c)
Sol. Among the given set of words, the most suitable word to fill in the given blank will be 'Genesis'. Hence, option (c) is the most suitable answer choice.
Genesis- the origin or mode of formation of something.

S26. Ans.(a)
Sol. Among the given statements, (D) being an independent statement set the theme of the passage which is related to COVID cases and India's performance in similar context. Here, Statement (A) will follow (D) considering how the cases began rising across the globe. It will then be followed by (F) which mentions the sudden rise in death count of the COVID related deaths. This will be followed by (B), which mentions the process of spread of a disease and its transition towards epidemic. Simultaneously, passage has established a contrast by mentioning the condition prevalent in India in statement (E). This will then be followed by (C) which related the numbers with the performance of the country in controlling the infection. Therefore, the correct sequence will be **DAFBEC**.

S27. Ans.(d)
Sol. Among the given statements, (D) being an independent statement set the theme of the passage which is related to COVID cases and India's performance in similar context. Here, Statement (A) will follow (D) considering how the cases began rising across the globe. It will then be followed by (F) which mentions the sudden rise in death count of the COVID related deaths. This will be followed by (B), which mentions the process of spread of a disease and its transition towards epidemic. Simultaneously, passage has established a contrast by mentioning the condition prevalent in India in statement (E). This will then be followed by (C) which related the numbers with the performance of the country in controlling the infection. Therefore, the correct sequence will be **DAFBEC**.

S28. Ans.(b)
Sol. Among the given statements, (D) being an independent statement set the theme of the passage which is related to COVID cases and India's performance in similar context. Here, Statement (A) will follow (D) considering how the cases began rising across the globe. It will then be followed by (F) which mentions the sudden rise in death count of the COVID related deaths. This will be followed by (B), which mentions the process of spread of a disease and its transition towards epidemic. Simultaneously, passage has established a contrast by mentioning the condition prevalent in India in statement (E). This will then be followed by (C) which related the numbers with the performance of the country in controlling the infection. Therefore, the correct sequence will be **DAFBEC**.

S29. Ans.(d)
Sol. Among the given statements, (D) being an independent statement set the theme of the passage which is related to COVID cases and India's performance in similar context. Here, Statement (A) will follow (D) considering how the cases began rising across the globe. It will then be followed by (F) which mentions the sudden rise in death count of the COVID related deaths. This will be followed by (B), which mentions the process of spread of a disease and its transition towards epidemic. Simultaneously, passage has established a contrast by mentioning the condition prevalent in India in statement (E). This will then be followed by (C) which related the numbers with the performance of the country in controlling the infection. Therefore, the correct sequence will be **DAFBEC**.

S30. Ans.(c)
Sol. Among the given statements, (D) being an independent statement set the theme of the passage which is related to COVID cases and India's performance in similar context. Here, Statement (A) will follow (D) considering how the cases began rising across the globe. It will then be followed by (F) which mentions the sudden rise in death count of the COVID related deaths. This will be followed by (B), which mentions the process of spread of a disease and its transition towards epidemic. Simultaneously, passage has established a contrast by mentioning the condition prevalent in India in statement (E). This will then be followed by (C) which related the numbers with the performance of the country in controlling the infection. Therefore, the correct sequence will be **DAFBEC**.

S31. Ans.(c)
Sol. 4 * G E 7 D @ 4 G # F 2 3 B D ^ 2 E 4 5 A F 4 D
is the 15th element from the right end.

S32. Ans.(b)
Sol. There is no such symbols which are immediately preceded by a symbol and immediately followed by a consonant

S33. Ans.(b)
Sol. Sum of 2nd prime number from left end = 7
4th number from right end = 2
Sum of these two numbers is = 7+2 = 9

S34. Ans.(d)
Sol. 5th element from the right end is 5
There are four symbols to the left of 5 i.e., #, @, *, ^
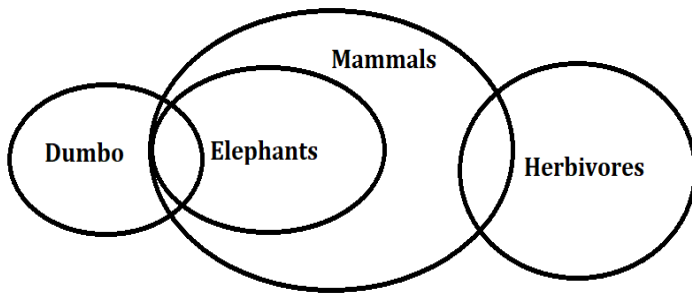
S35. Ans.(a)
Sol. 8th element from the right end is 2
4th element to the left of 2 is *

S36. Ans.(d)
Sol. I. does not follow – Some Dumbo are Elephants and all Elephants are Mammals but we can't say that all Dumbo is Mammals. So, it does not follow.
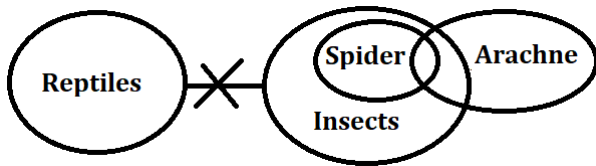**II.** does not follow – As there is no direct relation between Dumbo and Herbivores. So, any definite relation doesn't follow.

S37. Ans.(b)
Sol. I. does not follow – As there is no direct relation between Arachne and Reptiles. So, any definite relation doesn't follow.
II. follows –Some Arachne are Spider and all Spider are Insects. So, Some Arachne are Insects

S38. Ans.(a)
Sol. I. follow – Some Rose are Red and all Red are Beautiful. So, Some Rose is also Beautiful
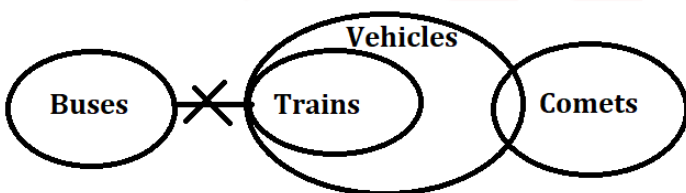**II.** does not follow – As there is no direct relation between Good and Rose. So, any definite relation doesn't follow.

S39. Ans.(b)
Sol. I. does not follow – As there is no direct relation between Comets and Bus. So, any definite relation doesn't follow.
II. follow – As there is no direct relation between Comets and Trains. But true in possibility. So, some trains can be comets.

Solutions (40-44):
Final arrangement:

Persons	Countries	Cities
Ramesh	USA	Delhi
Raju	UK	California
Rakesh	India	Moscow
Rajesh	Russia	Tokyo
Ravi	Japan	Austin

Explanation:
Clues: Ramesh who lives in the USA does not visit for a holiday to Tokyo. Raju visits for the holiday to California. Rakesh does not live in Russia. The person who lives in Russia visits for a holiday to Tokyo.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2

Persons	Case 1		Case 2	
	Countries	**Cities**	**Countries**	**Cities**
Ramesh	USA		USA	
Raju		California		California
Rakesh				
Rajesh	Russia	Tokyo		
Ravi			Russia	Tokyo

Clues: The person who visits for a holiday to Delhi does not live in India. Rakesh visits for a holiday to Moscow. Ravi neither lives in Russia nor visits for a holiday to Delhi.
Inference: From the above conditions Case 2 is cancelled here because Ravi does not live in Russia

Persons	Case 1		~~Case 2~~	
	Countries	**Cities**	~~**Countries**~~	~~**Cities**~~
Ramesh	USA	Delhi	~~USA~~	
Raju		California		~~California~~
Rakesh		Moscow		~~Moscow~~
Rajesh	Russia	Tokyo		
Ravi			~~Russia~~	~~Tokyo~~

Clues: The person who lives in Japan neither visits California nor Moscow. Raju does not live in India.
Inference: From the above conditions it is clear that Ravi lives in Japan and Rakesh lives in India.

Persons	Case 1	
	Countries	**Cities**
Ramesh	USA	Delhi
Raju		California
Rakesh	India	Moscow
Rajesh	Russia	Tokyo
Ravi	Japan	

Inference: Only one country and one city remain i.e., UK and Austin. Therefore, Raju lives in UK and Ravi visits for the holiday to Austin. So, the Final arrangement:

Persons	Countries	Cities
Ramesh	USA	Delhi
Raju	UK	California
Rakesh	India	Moscow
Rajesh	Russia	Tokyo
Ravi	Japan	Austin

S40. Ans.(b)
Sol. Raju lives in the UK

S41. Ans.(a)
Sol. Rakesh lives in India

S42. Ans.(b)
Sol. Ravi visits for a holiday to Austin

S43. Ans.(c)
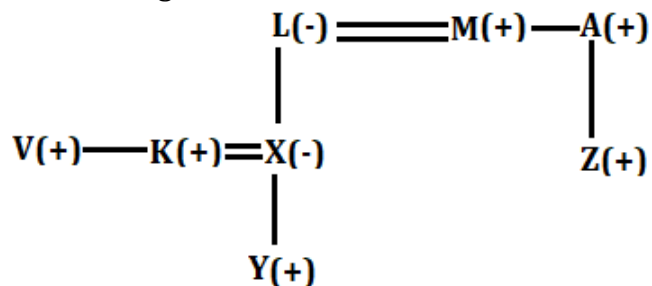**Sol.** The combination given in option(c), is correct

S44. Ans.(c)
Sol. Rakesh lives in India

S45. Ans.(d)
Sol. If we use the 3rd, 5th, 6th and 9th letters from the left end of the word "TRANSFORM" are A, S, F and M. No meaningful word is formed.
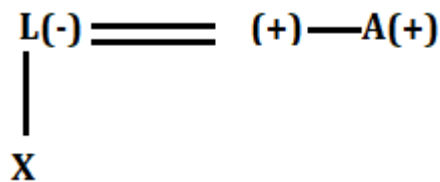
Solutions (46-48):
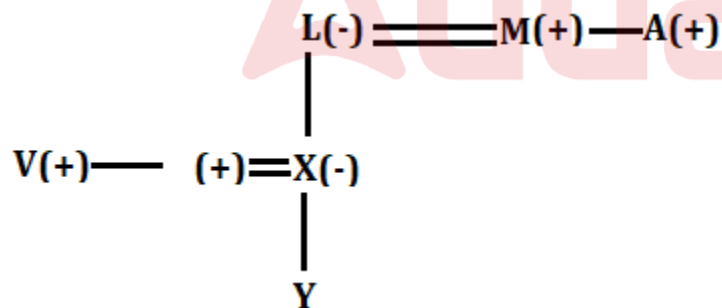Final arrangement:

Explanation:
Clues: A is uncle of X. L is mother of X. L has no siblings.
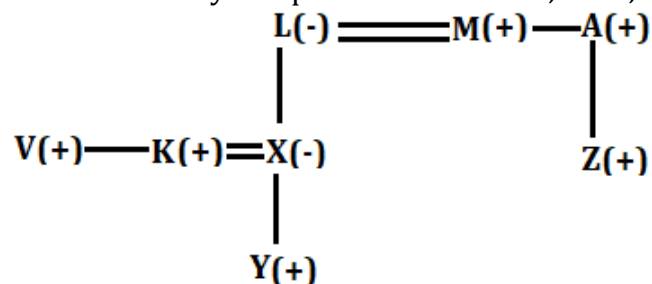**Inference:** From the above conditions it is clear that A is Paternal Uncle of X.

Clues: Y is grandchild of M. V is brother-in-law of X and has no child. X and V are of different gender. X has no siblings.
Inference: From the above conditions it is clear that X is married to brother of V.

Clues: Z is cousin of X. There are only two females in the family. K is one of the members.
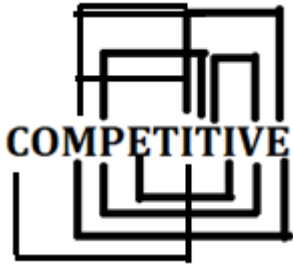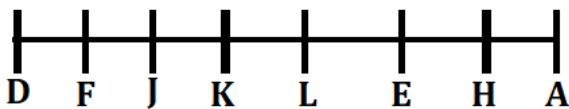**Inference:** Only one person remains i.e., K. So, Final arrangement:

S46. Ans.(a)
Sol. Y is nephew of V

S47. Ans.(c)
Sol. K is the Son-in-Law of L

S48. Ans.(a)
Sol. M is uncle of Z

Solutions (49-51):
Final arrangement:

M > C > Z > D > U > B > I
    1500

Explanation:
Clues: Only one person pays more amount than C. Two persons pay between C and U. D either pays just higher amount or just lower amount than U.
Inference: From the above conditions there are two possibilities i.e., Case 1 and Case 2.

__ > C > __ > __ > U > D > __   __ > C > __ > D > U > __ > __
      Case 1   Case 2

Clues: As many persons pays more amount than U as pay less amount than Z. B pays more amount than I. B does not pay the highest amount. M is one of the persons.
Inference: Only one person remains i.e., M.

M > C > Z > B > U > D > I   M > C > Z > D > U > B > I
      Case 1   Case 2

Clue: D does not pay the second lowest amount.
Inference: From the above conditions Case 1 is cancelled here as D will not pay the second lowest amount.

M > C > Z > B > U > D > I   M > C > Z > D > U > B > I
      Case 1   Case 2

Clue: Person who pays second highest amount will have to pay Rs. 1500.
Inference: Final arrangement:

M > C > Z > D > U > B > I
    1500

S49. Ans.(d)
Sol. If B pays Rs. 600 less than C
Then amount paid by I may be either is Rs. 800 or Rs. 750

S50. Ans.(d)
Sol. No one buys costlier ticket than M.

S51. Ans.(c)
Sol. As many persons buys before D as after D

S52. Ans.(d)
Sol.

COMPETITIVE

Solutions (53-57):

Final arrangement:

D	F	J	K	L	E	H	A

Explanation:

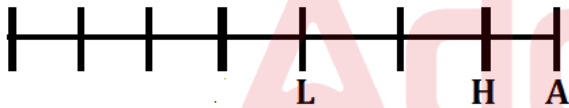**Clues:** A sit third to the right of L. Either A or L sit at one of the ends. One person sits between H and L.

Inference: From the above conditions there are three possibilities i.e., Case 1, Case 2 and Case 3.
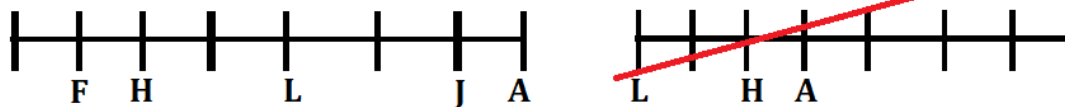
Case 1   **Case 2**

                H   L   A   L   H A

Case 3

                        L   H A
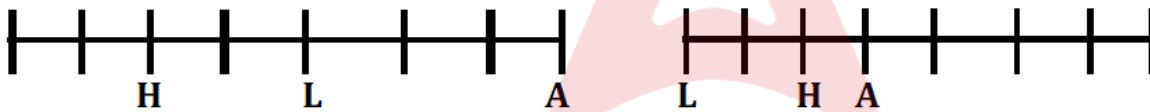
Clues: As many person sits between H and A as between F and J. Neither F nor J sits adjacent to L. F sits to the left of H. Neither F nor J sits at any of the end.

Inference: From the above conditions Case 2 is cancelled here as there is no place for J

Case 1   **Case 2**

        F H   L   J A   L   H A

Case 3

        F/J J/F   L   H A
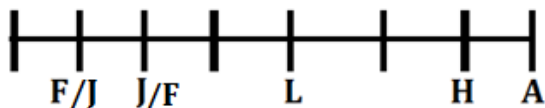
Clues: More than one person sits to the left of J. As many persons to the left of J as to the right of E. More than two persons sit between L and D.

Inference: From the above conditions Case 1 is cancelled here as there is no place for E
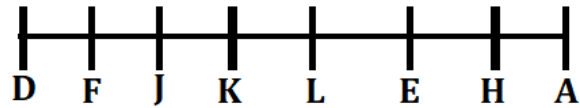
Case 1

F H L J A

Case 3

D F J L E H A

Inference: Only one person remains i.e., K. So, Final arrangement:

D F J K L E H A
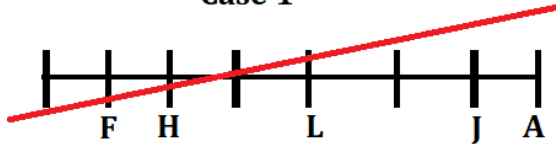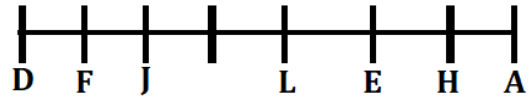
S53. Ans.(b)
Sol. Three persons sit between F and E

S54. Ans.(c)
Sol. D sits third to the left of K

S55. Ans.(b)
Sol. E sits third to the right of J

S56. Ans.(c)
Sol. Statement given in option (c) is true

S57. Ans.(b)
Sol. Six persons sit to the left of H

Solutions (58-60):

Words	Codes
Exam	Wa
Preparation	Ju
Boost	Ca
Up	Tp
Your	Vd
Speed	Xq
And	Mk
Accuracy	Lf
Bank	Sr

S58. Ans.(b)
S59. Ans.(d)
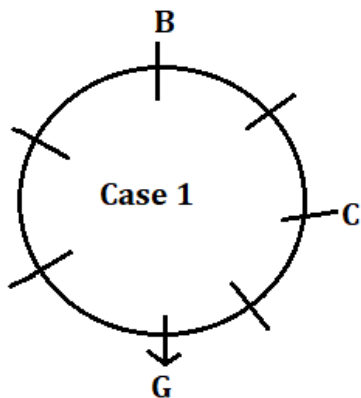**S60. Ans.(c)**

Solutions (61-65):
Final arrangement:
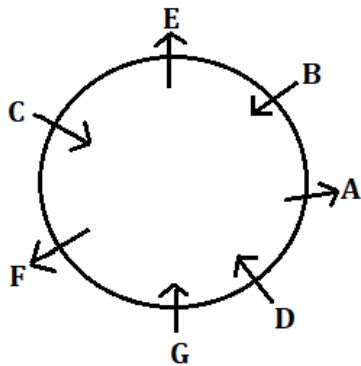
Explanation:
Clues:
C sits 2nd to the left of G. One person sits between C and B.
Inference:
From these clues, we get two possible cases: -
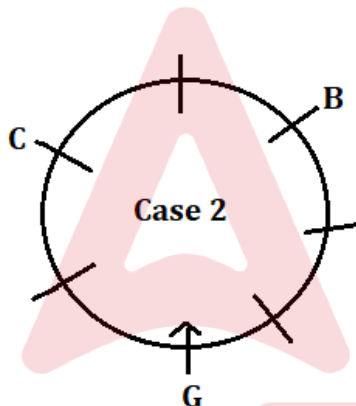
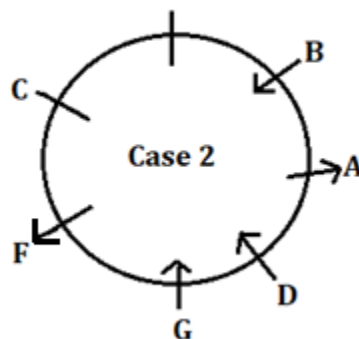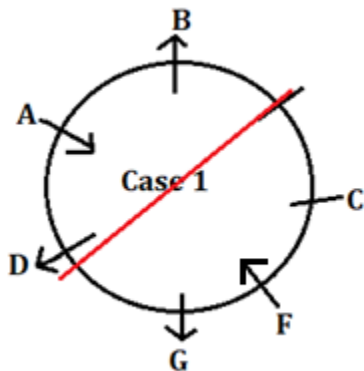
Clues:
F sits 3rd to the right of B. Two persons sit between F and A who is facing in opposite direction as of G. D and A sits immediate right to each other. D is facing towards the center of the table.
Inference:
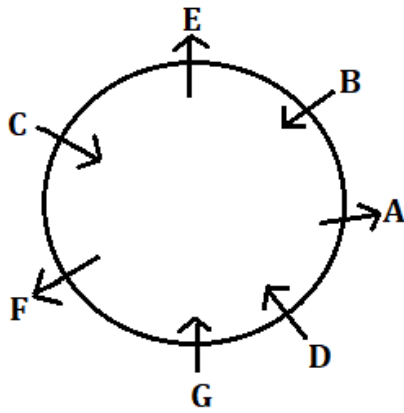Case 1 get eliminate here as not satisfying the above clues.

Clues:
Immediate neighbours of C face in same direction but opposite to C.
Inference:
So, C will face towards the centre as it is given that not more than two persons sit adjacent to each other will faces same direction. Also, we know E is one of the persons so the final arrangement: -

S61. Ans.(c)
Sol. E sits exactly between C and B.

S62. Ans.(b)
Sol. B and C are facing towards the center of the table.

S63. Ans.(b)
Sol. B sits 4th to the left of G.

S64. Ans.(d)
Sol. Two persons sit between E and D when counted from the right of E.

S65. Ans.(a)
Sol. Except the person A, all of the other persons are facing towards the centre of the table.

S66. Ans.(b)
Sol. $\frac{20}{100} \times 78 + ? = 2 \times 32$
? = 64 − 15.6
? = 48.4

S67. Ans.(b)
Sol. $? + 46.8 = \frac{8}{100} \times 625$
? = 50 − 46.8
? = 3.2

S68. Ans.(e)
Sol. ? = 566 − 420
? = 146

S69. Ans.(a)
Sol. $? = \frac{44+71}{14} - 5$
$? = \frac{115-70}{14}$
$? = 3\frac{3}{14}$

S70. Ans.(c)

Sol. $\frac{35}{100} \times ? + \frac{36}{100} \times 450 = 302$

$\frac{35}{100} \times ? = 302 - 162$

$? = 140 \times \frac{100}{35}$

$? = 400$

S71. Ans.(b)

Sol. $\frac{40}{100} \times 525 + \frac{60}{100} \times 1050 + 1 = ?^2$

$210 + 630 + 1 = ?^2$

$?^2 = 841$

$? = 29$

S72. Ans.(e)

Sol. $? \times \left(12 + \frac{10}{100} \times 60\right) = 135$

$? \times 18 = 135$

$? = 7.5$

S73. Ans.(a)

Sol. $12 \times ? + 156 = 252$

$12 \times ? = 96$

$? = 8$

S74. Ans.(d)

Sol. $\frac{1152}{?} = \frac{60}{100} \times 120 + \frac{48}{100} \times 250$

$\frac{1152}{?} = 72 + 120$

$? = \frac{1152}{192}$

$? = 6$

S75. Ans.(c)

Sol. $\frac{48}{5} + ? = 27$

$? = 27 - 9.6$

$? = 17.4$

S76. Ans.(b)

Sol. $326 + 144 + \frac{?}{100} \times 250 = 520$

$\frac{?}{100} \times 250 = 520 - 470$

$\frac{?}{100} \times 250 = 50$

$? = 20$

S77. Ans.(b)
Sol. $? \times 192 = 484 - 4$
$? \times 192 = 480$
$? = 2.5$

S78. Ans.(c)
Sol. $\frac{18+73+35}{14} = ?^2$
$?^2 = \frac{126}{14}$
$?^2 = 9$
$? = 3$

S79. Ans.(b)
Sol. $? = \frac{55}{100} \times 400 - 18 \times 2$
$? = 220 - 36$
$? = 184$

S80. Ans.(c)
Sol. $512 - 348 = ?$
$164 = ?$

S81. Ans.(b)
Sol. Required difference = $100 \times \frac{3}{5} - 80 \times \frac{5}{8}$
$= 60 - 50 = 10$

S82. Ans.(e)
Sol. Required ratio = 120 : 180 = 2 : 3

S83. Ans.(a)
Sol. Total item X sold by offline mode = $160 \times \frac{150}{100} \times \frac{(100-60)}{160} = 96$

S84. Ans.(b)
Sol. Required percentage = $\frac{(120+80)-160}{160} \times 100 = 25\%$

S85. Ans.(a)
Sol. Required difference = $(100 + 180) - (160 + 80) = 40$

S86. Ans.(c)
Sol. Cumulative interest rate for two years = $\left(10 + 10 + \frac{10 \times 10}{100}\right)\% = 21\%$
Compound interest = $P \times \frac{21}{100}$
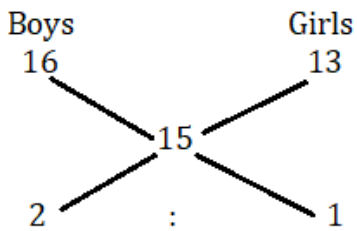$4410 = P \times \frac{21}{100}$
P = Rs. 21,000
Now,
Simple interest = $(21,000 + 1000) \times \frac{30}{100} \times 3$ = Rs. 19,800

S87. Ans.(a)
Sol.

Boys   Girls
16   13

15

2   :   1

Number of boys = $\frac{2}{3} \times 30 = 20$

Alternative method
Let number of boys and girls in the class be x & y respectively.
ATQ,
$x + y = 30 \dots (i)$
And
$x \times 16 + y \times 13 = 30 \times 15$
$16x + 13y = 450 \dots (ii)$
From (i) & (ii)
$x = 20, y = 10$
So, number of boys in the class = 20

S88. Ans.(e)
Sol. Income of the person in 2021 = $1,20,000 \times \frac{23}{20} \times \frac{23}{20} = Rs.\,1,58,700$

S89. Ans.(c)
Sol. Let the cost price of the article be 5x
Marked price = $\frac{120}{100} \times 5x = 6x$
Selling price = $\frac{2}{3} \times 6x = 4x$
ATQ,
5x – 4x = 625
x = 625
New selling price = $\frac{140}{100} \times 5 \times 625 = Rs.\,4375$

S90. Ans.(e)
Sol. Let the breadth of rectangle is 4x and side of square is 5x
ATQ,
2(12 + 4x) = 32
12 + 4x = 16
4x = 4
x = 1
Area of square = 5 × 5 = 25 m²

S91. Ans.(d)
Sol. Total work = LCM (20, 10 and 60) = 60 units
Efficiency of A and B = $\frac{60}{20}$ = 3 units/day
Efficiency of B and C = $\frac{60}{10}$ = 6 units/day
Efficiency of C and A = $\frac{60}{60}$ = 1 unit/day
Efficiency of A, B and C = $\frac{3+6+1}{2} = \frac{10}{2}$ = 5 units/day
Time taken by all of them to complete the work = $\frac{60}{5} = 12\ days$

S92. Ans.(a)
Sol. Let the speed of boat in downstream be 5x
Speed of boat in upstream = $\frac{60}{100} \times 5x = 3x$
ATQ,
$\frac{50}{5x} = 5$
x = 2
Speed of stream = $\frac{5x-3x}{2} = x = 2km/hr$
Speed of boat in still water = $\frac{5x+3x}{2} = 4x = 8$ km/hr

S93. Ans.(b)
Sol. Profit sharing ratio of A to B = $[(5000 \times 12):(12-x) \times 4000]$
= $15:(12-x)$
ATQ,
$\frac{15}{12-x} = \frac{11000-3500}{3500}$
x = 5 months

S94. Ans.(b)
Sol. Sum of twenty numbers = $20 \times 150 = 3000$
Required average = $\frac{3000+100}{25} = 124$

S95. Ans.(e)
Sol. Speed of train = $54 \times \frac{5}{18} = 15\ m/s$
$\frac{x+2x}{45} = 15$
3x = 675
x = 225

S96. Ans.(c)
Sol. Missing number = 56
Here the pattern is:
11+5 = 16
16+7 = 23
23+9 = 32
32+11 = 43
? = 43+13 = **56**

S97. Ans.(a)
Sol. Missing number = 368
Pattern of series –
5 + 3 = 8
8 + 9 = 17
17 + 27 = 44
44 + 81 = 125
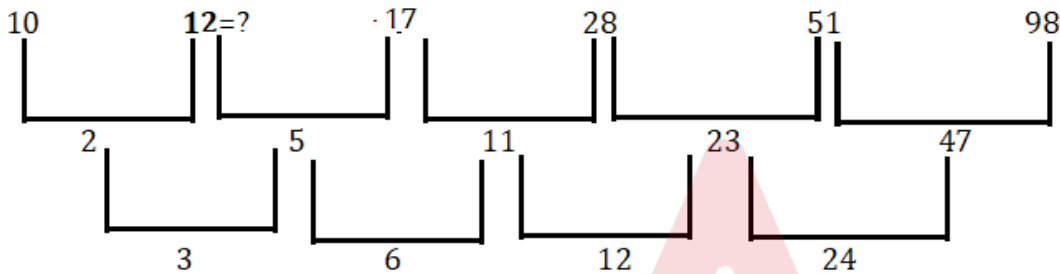? = 125 + 243 = **368**

S98. Ans.(c)
Sol. Missing number = 12
Pattern of series –

```
10          12=?        · 17        28         51         98

      2          5          11         23         47

         3          6          12         24
```

S99. Ans.(b)
Sol. Missing number = 222
Pattern of series –
$1 + 1^3 = 2$
$2 + 2^3 = 10$
$3 + 3^3 = 30$
$4 + 4^3 = 68$
$5 + 5^3 = 130$
$6 + 6^3 = \textbf{222} = ?$

S100. Ans.(d)
Sol. Missing number = 175
Here the pattern is:
25+10 = 35
35 +20 = 55
55 + 30 = 85
85 + 40= 125
? = 125 + 50= **175 = ?**