## Adda247

## All India Mock for NICL A0 Prelims 2024 (1-2 March)

Directions (1-6): In the following questions, a sentence is given with a blank in it. Following each sentence some words are suggested. Choose the option reflecting the word(s) that can fit the given blank both contextually and grammatically as your answer.

Q1. The Central government is working on the establishment of an exclusive body to $\qquad$ projects for linking rivers.
(i) execute
(ii) implement
(iii) reset
(a) Only (i)
(b) Only (iii)
(c) Both (ii) and (iii)
(d) Both (i) and (ii)
(e) Both (i) and (iii)

Q2. Non-Muslim communities gifted a Koran each to a vandalised mosque in western Assam's Baksa district as a token of communal $\qquad$ -.
(i) harmony
(ii) synchrony
(iii) remedy
(a) Only (i)
(b) Only (iii)
(c) Both (ii) and (iii)
(d) Both (i) and (ii)
(e) Both (i) and (iii)

Q3. The number of Telugu speaking people in Assam is almost twice that of the $\qquad$ number of those who speak three other major south India languages
(i) regional
(ii) bond
(iii) combined
(a) Only (i)
(b) Only (iii)
(c) Both (ii) and (iii)
(d) Both (i) and (ii)
(e) Both (i) and (iii)

Q4. Good street lights do have a role to play in helping women make an/a $\qquad$ about how safe they are in their work commute
(i) assessment
(ii) affected
(iii) judgement
(a) Only (i)
(b) Only (iii)
(c) Both (ii) and (iii)
(d) Both (i) and (ii)
(e) Both (i) and (iii)

Q5. The United Nations Global Compact Network India is the third edition of its Gender Equality Summit
in New Delhi.
(i) hosting
(ii) giving
(iii) competing
(a) Only (i)
(b) Only (iii)
(c) Both (ii) and (iii)
(d) Both (i) and (ii)
(e) Both (i) and (iii)

Q6. $\qquad$ drones will help paddy cultivation substantially at a time when farmers are pressed to find labourers and are fighting mounting costs
(i) Resuming
(ii) Interacted
(iii) Deploying
(a) Only (i)
(b) Only (iii)
(c) Both (ii) and (iii)
(d) Both (i) and (ii)
(e) Both (i) and (iii)


Directions (7-11): In the questions given below two 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.

Q7.
(I) Renewable energy sources will grow in India
(II) More focus on using crude oil will be observed in the United States of America.
(a) whereas
(b) therefore
(c) because
(d) like
(e) equally

Q8.
(I) The prices of housing units have sky rocketed.
(I) Land prices seem to have hit an all-time low.
(a) provided that
(b) because
(c) in contrast
(d) talking of
(e) like

Q9.
(A) The bank diverted all the money into the stock market
(B) The uncontrolled spiral of the economy could be controlled.
(a) so that
(b) as regards
(c) beyond
(d) under
(e) in this case

## Q10.

(A) The driver was prohibited from driving.
(B) His eye surgery was completed.
(a) hence
(b) thus
(c) till
(d) due to
(e) Too

Q11.
(I) Increase the number of tests being conducted
(II) the government has ordered a larger number of test kits
(a) later
(b) afterwards
(c) at first
(d) rather
(e) in order to

Directions (12-16): In the questions given below, a sentence has been broken down into four fragments labelled (A), (B), (C), (D) and (E) and arranged not necessarily in the correct order. You have to find the correct order of arrangement from the options given below. If none of the options fail to form a meaningful sentence, mark 'None of these' option as your answer.

Q12.
(A) who attacked a CRPF convoy
(B) from Pulwama's Hakripora village for allegedly
(C) sheltering the local suicide bomber
(D) a man and his daughter were arrested
(a) BCAD
(b) DBCA
(c) CDBA
(d) ACDB
(e) None of these

Q13.
(A) the Centre said it was in discussion
(B) the National Population Register
(C) with States that had expressed concerns
(D) over the updation of
(a) BCAD
(b) DBCA
(c) CDBA
(d) ACDB
(e) None of these

Q14.
(A) on his head, was arrested
(B) the Capital's most wanted criminal
(C) who was carrying a reward of ₹ 6.5 lakh
(D) along with his three accomplices
(a) BCAD
(b) DACB
(c) CDBA
(d) ACDB
(e) None of these

Q15.
(A) vulnerable areas of the national capital
(B) to install CCTV cameras in
(C) the Delhi High Court directed
(D) the police to take "immediate and urgent steps"
(a) BCAD
(b) DBCA
(c) CDBA
(d) ACDB
(e) None of these

Q16.
(A) takes place, the university said
(B) out to the police and transport authorities to
(C) take measures to ensure no hooliganism
(D) in the run-up to Holi, Delhi University officials reached
(a) BCAD
(b) DBCA
(c) CDBA
(d) ACDB
(e) None of these

Directions (17-24): Read the following passage and answer the following questions. Some words are highlighted to help you answer some of the questions.

In his famous book "Wealth of Nations", Adam Smith, father of economics, wrote that the wealth of nations is not only their gold and silver and other possessions but the quality of manpower that the country possesses. He made this point in the eighteenth century but his theory resonates in modern times. It is clear from empirical evidence that we have gathered over a period of time that the more literate and more trained manpower countries have, the more they are economically developed. All the data gathered over centuries shows a direct correlation between economic prosperity of a nation and the percentage of trained manpower. The World Bank in its reports has concluded that a skilled workforce is crucial to a country's economic transformation. It enables workers to move out of lowproductivity activities and earn more in their jobs.
It is not that in India we were not aware of the importance of vocational education and training. Beginning with Woods dispatch of 1854 - the communication from Sir Charles Wood to the then Governor-General of India Lord Dalhousie that underscored vocational and women's education, Wood suggested that primary schools must adopt vernacular languages, high schools must adopt Anglo vernacular language and on college-level English medium for education - all the education commissions and committees set up by Government of India have consistently recommended that vocational education and
training systems must be made an integral part of our overall planning of education system and a large body of students have to be imparted vocational education and training after their school education.
How critical is trained manpower's role in economic development became clear in the early part of the new millennium when India surged ahead of other countries, including China, in the field of Information Technology. We quickly changed our technical education policy despite stiff resistance by status quoists and expanded our base of trained manpower in time to capture the emerging space in the IT sector economy.
Unfortunately, we are still to attain the goal of skilling our vast manpower despite policy framework being in place for almost two decades. Various studies have clearly brought out this fact that due to largely untrained manpower in our country, the efficiency in all aspects of our economic sphere is at a very low level. Studies conducted world wide have shown that training and skilling a workman increases his efficiency from 3 to 12 times, depending upon the level of training. Clearly, an increase in efficiency through training across the economic spectrum can lead to tremendous increase in output with consequential increase in the GDP. Not only that, poor workmanship of an untrained worker causes decline in the quality of output everywhere. Wherever we see a wire hanging loosely, inside or outside our dwellings, please remember it is the handiwork of an untrained electrician. In any vocational training course, the first chapter of the training is invariably safety at the workplace. This approach is called safety first, and leads to a reduction in the number of accidents and loss of lives.
There is no doubt that due to recent focus on "Skill India" campaign, there are more avenues available to our population to get the desired skills as per their choice to become a productive asset for the economy but a lot needs to be done to train our burgeoning young population. What we need is that training facilities ________ job descriptions with proper teaching and learning material. This is the need of hour to make the country an economic superpower and achieve the 5 trillion GDP target without any difficulty.

Q17. Why is training and skill development of a workman necessary?
(a) It increases the efficiency of the workman up to 12 times.
(b) It leads to an increase in the GDP.
(c) It increases the output where the trained workman works.
(d) Both b) and c)
(e) All of the above.

Q18. What steps need to be taken to achieve the 5 trillion GDP target?
(a) Import huge amount of cheap labour and products from other nations.
(b) Training centers with appropriate amount of learning material.
(c) Training centers to impart skills according to job description to our people.
(d) both b) and c)
(e) All of the above

Q19. What were the main components of the Woods dispatch?
(a) It focused on the women's health.
(b) English to be introduced during college-level.
(c) Vernacular languages to be followed during the primary schooling.
(d) Both b) and c)
(e) All of the above.

Q20. Why it is said that for a nation their gold and silver are not the actual wealth but it's their manpower?
(a) Gold and silver lose their shine over a long period of time.
(b) Value of gold and silver decreases with time.
(c) There are evidences that countries with skilled manpower are more economically developed.
(d) both a) and c).
(e) None of these.

Q21. Which of the following is TRUE as per the passage?
(a) Safety first leads to unnecessary delays in a project.
(b) Woods dispatch was introduced in 1964.
(c) Sir Charles Wood was in favour of women's education.
(d) both a) and c)
(e) none of the above

Q22. Which of the following is opposite in meaning to 'CONSISTENTLY' as used in the passage?
(a) persistently
(b) typically
(c) steadily
(d) sporadically
(e) None of these.

Q23. Select appropriate filler for the blank (A) given in the passage.
(a) created of all these
(b) be creating with all these
(c) be created for all these
(d) creating for all these
(e) None of these.

Q24. Which of the following is similar in meaning to 'INTEGRAL' as used in the passage?
(a) intrinsic
(b) dispensable
(c) cautious
(d) extrinsic
(e) None of these.

Directions (25-29): In each of the given questions, few words have been highlighted. One of the highlighted words may be grammatically or contextually incorrect or misspelt. Identify the word and mark that as your answer. If none of the highlighted words is incorrect, mark option ' e ', all are correct, as your answer.

Q25. In today's unprecedented context, a cyberattack that deprives organizations or families of excess to their devices, data or the internet could be devastating and even deadly.
(a) unprecedented
(b) deprives
(c) excess
(d) devastating
(e) all are correct

Q26. In a crisis situation, particularly if prolonged, people tend to make mistakes they would not have made otherwice.
(a) prolonged
(b) mistakes
(c) crisis
(d) otherwice
(e) all are correct

Q27. Now more than ever, people need to be even more aware of phishing emails, especially ones that refer to COVID-19 in any form or fashion.
(a) people
(b) aware
(c) phishing
(d) fashion
(e) all are correct


Q28. Companies have to be more proactive in looking at anomaliese in their systems given that the hackers are aware that people are scrambling.
(a) proactive
(b) anomaliese
(c) hackers
(d) scrambling
(e) all are correct

Q29. As the U.S. ramped up its efforts to control the outbrake, a cyberattack recently hit the Department of Health and Human Services.
(a) ramped
(b) efforts
(c) outbrake
(d) recently
(e) all are correct

Directions (30-30): Select the phrase/connector (STARTERS) from the given three options which can be used to form a single sentence from the two sentences given below, implying the same meaning as expressed in the statement sentences.

Q30. (A) The bank plans to set aside ₹100 crore to ₹200 crore for the merger.
(B) It wants to run this merger scheme on a pilot basis for at least six months.
(i) Despite the bank plans $\qquad$
(ii) However the pilot basis. $\qquad$
(iii) Though the bank plans to $\qquad$
(a) Only (ii)
(b) Only (iii)
(c) Both (ii) \& (iii)
(d) Both (i) \& (iii)
(e) All (i), (ii), (iii)

Q31. In a certain code "FIGURE" is coded as "FSHVJG" and "HANDLE" is coded as "FMOEBI", then what will be the code for the word "MONDAY"?
(a) ZBOEPN
(b) NPEOBZ
(c) ZBEONP
(d) ZBOENP
(e) None of these

Directions (32-34): Study the following information carefully and answer the questions given below:

Seven boxes of different colours viz. Blue, White, Green, Pink, Purple, Yellow and Marron are placed one above the other but not necessarily in the same order. Boxes are
placed in such a way that the position of the bottommost box is numbered as 1 , position of the box just above it is numbered as 2 and so on till the position of the topmost box is numbered as 7 .
Green colour box is placed two places above the white colour box and both are placed at prime numbered position. Yellow colour box is placed just above pink colour box which is placed at even position. Not more than one box is placed below pink colour box. Both Blue and purple colour box are placed at even position.

Q32. How many boxes are placed between Blue and Marron colour boxes?
(a) Three
(b) Four
(c) Two
(d) One
(e) Can't be determined

Q33. How many boxes are placed below the yellow colour box?
(a) None
(b) Two
(c) Four
(d) Six
(e) None of these

Q34. Which of the following box is placed at $4^{\text {th }}$ position?
(a) Purple box
(b) Green box
(c) White box
(d) Blue box
(e) Either Purple or Blue

Directions (35-37): Study the following information carefully and answer the question given below:

A person walks 10 m towards south from point $P$ to $Q$. Then turns left and walks 21 m to reach point R. From R, he walks 9 m towards his right and reach at Point S . Now he walks 12 m towards east from point $S$ to $T$. Then turns left from $T$ and walks 12 m to reach to reach point M . At last, he takes two consecutive right turns of 5 m and 7 m to reach point V and W respectively.

Q35. What is the direction of point W with respect to point R?
(a) West
(b) East
(c) South-east
(d) North-west
(e) None of these

Q36. What is the shortest distance between point $T$ and point V ?
(a) 17 m
(b) 13 m
(c) 19 m
(d) 14 m
(e) 10 m

Q37. Four among the following five pairs are alike in a certain manner and related to a group, which among the following does not belong to the group?
(a) V-R
(b) Q-W
(c) P-S
(d) R-T
(e) M-W

Q38. How many pairs of letters are there in the word AUBERGINE, each of which has as many letters between them (in both forward and backward direction) as they have according to English alphabetical series?
(a) Three
(b) Four
(c) One
(d) Two
(e) None of these

## Directions (39-42): Study the information carefully and answer the questions given below.

Seven persons- A, B, C, R, T, U and Y sit in a row but not necessarily in the same order. The number of persons face north is more than the number of persons face south.
$T$ is the only immediate neighbour of Y. C sits $3^{\text {rd }}$ to the left of T and both face the same direction.
$A$ and $R$ sit $2^{\text {nd }}$ to the left of each other. A and $C$ face opposite direction. $U$ sits immediate right of $A$ and both face opposite direction. B and Y sit left of each other.

Q39. How many persons face the south direction?
(a) None
(b) Two
(c) One
(d) Either two or three
(e) Three

Q40. How many persons sit to the right of $R$ ?
(a) More than five
(b) One
(c) Five
(d) Three
(e) Two

Q41. The number of persons sit between $R$ and $U$ is same as the number of persons sit to the left of $\qquad$ .
(a) C
(b) A
(c) B
(d) T
(e) Both C and B

Q42. What is the position of $T$ with respect to U's immediate neighbour?
(a) $3^{\text {rd }}$ to the left
(b) $4^{\text {th }}$ to the left
(c) $2^{\text {nd }}$ to the right
(d) $5^{\text {th }}$ to the left
(e) $3^{\text {rd }}$ to the right

Directions (43-46): In each of the questions below, some statements are given followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follow from the given statements, disregarding commonly known facts. Give answer

## Q43. Statements:

Only a few French are Hindi.
All Hindi are English.
No Hindi is Russian.

## Conclusions:

I. All French can never be Russian.
II. All English being Russian is not a possibility.
(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.

## Q44. Statements:

All Cricket is field.
Some bat is Field.
Some Ball are cricket.

## Conclusions:

I. Some Cricket is Bat.
II. No Ball is Bat.
(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.

## Q45. Statements:

Only ETH is BTC.
Only a few TLM is ETH.

## Conclusions:

I. Some TLM is not ETH
II. No TLM is BTC
(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.

## Q46. Statements:

All Green is Blue.
Some Purple are Blue.
No White is Purple.

## Conclusions:

I. Some Green can never be Purple
II. Some Blue are not White
(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 (47-51): Study the following information to answer the questions below:

Ten persons A, B, C, D, E, G, H, J, K and L live on different floors of a five-floor building (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 5 . Each floor has two flats i.e., flat $P$ and flat $Q$ in such a manner that flat $P$ of floor 2 is just above the flat $P$ of floor 1 and just below the flat P of floor 3. Similarly, flat Q of floor 2 is just above the flat Q of floor 1 and just below the flat Q of floor 3. Flat $Q$ is in the east of flat $P$.
K lives either on topmost floor or on bottommost floor. D lives east of K . Three floors gap between D and H . H and K lives in the same flat. C lives to the west of A and both live on an odd numbered floor. J lives just below $C$ in the same flat. L lives to the north-east of J. One floor gap between L and B. G lives on one of the floors which is below B's floor.

Q47. How many persons live above the floor of E ?
(a) Five
(b) Four
(c) Three
(d) Two
(e) None

Q48. Who among the following lives just below the flat of L?
(a) E
(b) G
(c) A
(d) C
(e) None of these

Q49. Who among the following lives to the west of G ?
(a) H
(b) C
(c) J
(d) E
(e) None of these

Q50. Who among the following lives on even numbered floor?
(a) K
(b) B
(c) H
(d) G
(e) C

Q51. Four among the following five are alike in a certain way and related to a group, who among the following does not belong to the group?
(a) L
(b) G
(c) D
(d) B
(e) K

Directions (52-55): Study the information carefully and answer the questions given below.

In a certain code language:
"Money in the bank" is coded as "12 2135 17"
"Royal rumble money bank" is coded as "16 4235 21"
"Sunday match royal money" is coded as "29 2821 42"
"Winners win in royal" is coded as "55 221242 "
Q52. What is the code for "royal bank" in the given code language?
(a) 1742
(b) 3517
(c) 4235
(d) 2112
(e) 1716

Q53. The code " 29 " is coded for?
(a) Sunday
(b) Winners
(c) Match
(d) Win
(e) Can't be determined

Q54. What is the code for "the rumble" in the given code language?
(a) 1742
(b) 3517
(c) 4235
(d) 2112
(e) 1716

Q55. The code " 22 " is coded for?
(a) Winners
(b) Sunday
(c) Win
(d) Either Winners or win
(e) Either Sunday or win

Directions (56-60): Study the given information carefully and answer the related questions:

A certain number of persons sit around a circular table and all of them facing towards the centre.
Two persons sit between $S$ and $T$. $V$ sits second to the right of T. One person sits between V and W who doesn't sit adjacent to $S$. W sits three places away from $S$. No one sits between $W$ and $Q$ when counts from the right of $W$.

Q56. How many persons sit around the circular table?
(a) 12
(b) 15
(c) 11
(d) 10
(e) 13

Q57. Which among the following statement(s) is/are not true?
I. T sits $5^{\text {th }}$ to the left of Q
II. S sits adjacent to W
III. Three persons sit between $T$ and $Q$
(a) Only II
(b) Only I
(c) Both I and III
(d) Both II and III
(e) All I, II and III

Q58. If $U$ sits third to the right of $Q$, then how many persons sit between $U$ and $T$ ?
(a) One
(b) Seven
(c) Either one or seven
(d) Three
(e) Six

Q59. What is the position of $V$ with respect to $Q$ ?
(a) Third to the right
(b) Third to the left
(c) Immediate right
(d) Second to the right
(e) None of these

Q60. How many persons sit between Q and the one who sits immediate right of $V$ when counts from the right of $Q$ ?
(a) Four
(b) Five
(c) Three
(d) Six
(e) More than six

## Directions (61-63): Study the given information carefully and answer the related questions:

In a family of four generations there are nine members. $S$ is daughter in law of M who is father of P . M has two children. $K$ is father of $O$ who is the unmarried sibling of $M$. $N$ is sister -in -law of 0 and vice versa. T is child of $S$ but not $P$. J is paternal grandparent of P who is only sister of Q . Gender of $T$ and $Q$ is same.

Q61. How many married couples are in the family?
(a) Two
(b) Three
(c) Four
(d) One
(e) None of these

Q62. How J is related to 0 ?
(a) Sister
(b) Brother
(c) Mother
(d) Uncle
(e) Aunt

Q63. Four among the following five are same in a certain way and forms a group. Who among the following does not belong to the group?
(a) J
(b) P
(c) N
(d) 0
(e) T

Directions (64-65): In the given questions, assuming the given statements to be true. Find which of the given two conclusions numbered I, and II is/are definitely true and give your answer accordingly.

Q64.

## Statement:

$\mathrm{T}>\mathrm{N} \geq \mathrm{E}>\mathrm{I} \leq \mathrm{S} \leq \mathrm{U}<\mathrm{X}$

## Conclusions:

I. T > I
II. $\mathrm{X}>\mathrm{I}$
(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

Q65.
Statement:
$\mathrm{N}>\mathrm{V}>\mathrm{M} \leq \mathrm{O} ; \mathrm{M} \geq \mathrm{Z}>\mathrm{B}$
Conclusions:
I. $\mathrm{Z} \leq \mathrm{O}$
II. $\mathrm{N}>\mathrm{O}$
(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 (66-70): What approximate value will come in place of question mark (?) in the following questions? (You are not expected to calculate the exact value)

Q66.

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        39.99% of \sqrt{3}{3375.02}}\times10.11=
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(a) 60
(b) 52
(c) 45
(d) 70
(e) 64

Q67. ${ }^{199.89 \times 7.12-\frac{2}{9} \text { of } 170.82=? \times 3.31}$
(a) 478
(b) 454
(c) 441
(d) 477
(e) 442

Q68 $22.98^{2}-19.82 \%$ of $400.11=? \div 1.99$
(a) 882
(b) 902
(c) 989
(d) 898
(e) 878

Q69.
$\sqrt{(18.02 \times 9.90)+15.99}=$ ? $-45.22 \%$ of 499.90
(a) 239
(b) 278
(c) 294
(d) 221
(e) 205

Q70. 819.90-124.45+20.02\% of 880.02=?
(a) 812
(b) 872
(c) 840
(d) 828
(e) 804

Directions (71-75): Line graph given below shows total number of students participated in two (cricket \& hockey) different sports from five (P, Q, R, S and T) different schools and it also shows difference between numbers of students participated in cricket and hockey. Read the following line graph carefully and answer the questions given below.
Note: Number of students participated in cricket is more than number of students participated in hockey in each given school.


Q71. If number of students participated in cricket from school F is $20 \%$ more than that of from school T , then find the difference between number of students participated in cricket from school F and that of from school S.
(a) 2
(b) 4
(c) 5
(d) 8
(e) 11

Q72. Find the average number of students participated in hockey from schools $Q, R$ and $S$.
(a) 60
(b) 40
(c) 48
(d) 80
(e) 64

Q73. If the ratio of number of students participated in volleyball to hockey from school $P$ is 5:8, then find the number of students participated in volleyball from school $P$ is what percent of number of students participated in cricket from the same school?
(a) $34.50 \%$
(b) $32.50 \%$
(c) $35.75 \%$
(d) $31.25 \%$
(e) $36.25 \%$

Q74. Find the ratio of total number of students participated in cricket from school $S$ and $Q$ together to total number of students participated in both the sports from school T.
(a) $10: 7$
(b) $12: 5$
(c) $11: 9$
(d) $14: 5$
(e) $13: 9$

Q75. The average number of students participated in hockey from schools $Q, S \& X$ is 70 and the number of students participated in cricket from school X is $14 \frac{2}{7} \%$ less than that of in hockey. Find the total number of students participated in both the sports from school $P$ is how much more or less than total number of students participated in both the sports from school X.
(a) 10
(b) 12
(c) 5
(d) 8
(e) 14

Directions (76-80): What will come in the place of question (?) mark in following number series:

Q76. 91, 109, 132, 160, 193, 231, ?
(a) 240
(b) 274
(c) 262
(d) 289
(e) 295

Q77. 1204, 843, 587, 418, 318, ?, 253
(a) 269
(b) 328
(c) 274
(d) 367
(e) 398

Q78. ?, 24, 48, 16, 64, 12.8
(a) 12
(b) 28
(c) 20
(d) 32
(e) 24

Q79. 10, 6, 7, 11.5, 24, 61, ?
(a) 199
(b) 204
(c) 192
(d) 184
(e) 215

Q80. 25, ?, 60, 120, 130, 260, 270
(a) 50
(b) 12.5
(c) 25
(d) 75
(e) 100

Directions (81-85): The information given below shows the number of cars manufactured by three ( $\mathrm{X}, \mathrm{Y}$ and $Z$ ) companies in two (2020 and 2021) different years.

Total cars manufactured by X in 2020 is $37.5 \%$ more than that of by Y and the ratio of cars manufactured by Z in 2021 to Y in 2020 is 5:8. Total cars manufactured by X in 2021 is 20 more than that of by Z. Cars manufactured by Z in 2020 is 15 less than that of by X and total cars manufactured in 2020 is 585.


Q81. Total cars manufactured by Y in 2021 is $80 \%$ of total cars manufactured by X in 2020 . Find the ratio of total cars manufactured by Y in 2020 to that of in 2021.
(a) $10: 11$
(b) $12: 11$
(c) $14: 15$
(d) $15: 17$
(e) None of these

Q82. Find the difference between total cars manufactured by X in both years and total cars manufactured by Z and Y in 2020.
(a) 20
(b) 25
(c) 15
(d) 10
(e) 40

Q83. Find the total cars manufactured in 2021.
(a) 250
(b) 280
(c) 420
(d) None of these
(e) Can't be determined

Q84. Total cars manufactured by Y in 2020 is what percent more or less than cars manufactured by Z in 2021?
(a) $50 \%$
(b) $40 \%$
(c) $55 \%$
(d) $60 \%$
(e) $45 \%$

Q85. Find the average number of cars manufactured by Y in 2020 and by X in 2021.
(a) 110
(b) 120
(c) 125
(d) 140
(e) 155

Q86. 10 men and 15 women together can do a piece of work in 15 days, while 18 women can do the same work in 25 days. Find the time taken by 25 men can do the same work.
(a) 4 days
(b) 12 days
(c) 9 days
(d) 15 days
(e) 6 days

Q87. The compound interest earned from Rs. 2000 at the $12 \%$ p.a. for two years is how much more/less than the simple interest earned from Rs. 1500 at $5 \%$ p.a. for three years.
(a) Rs. 283.8
(b) Rs. 285.8
(c) Rs. 281.8
(d) Rs. 289.8
(e) Rs.282.8

Q88. The present age of $P$ is $250 \%$ more than that of $Q$ and present age of $R$ is $50 \%$ that of $P$. If the sum of ages of $R$ and Q after two years is 48 years, then find the age of P four years ago.
(a) 44 years
(b) 58 years
(c) 47 years
(d) 61 years
(e) 52 years

Q89. A bought two articles at same cost price. If he sold first article at Rs. 3500 and got a loss of $12.5 \%$, then find the profit percentage of second article to make an overall profit of $20 \%$.
(a) $55.5 \%$
(b) $58.5 \%$
(c) $54.5 \%$
(d) $52.5 \%$
(e) $50.5 \%$

Q90. The ratio of milk to water in mixture $X$ and $Y$ are 6:7 and $4: 5$ respectively. If mixture X and mixture Y are mixed together and the ratio of milk to water in the resultant mixture becomes is $5: 6$, then find the ratio of quantity of mixture X to Y .
(a) $13: 11$
(b) $13: 9$
(c) $13: 15$
(d) $13: 17$
(e) $13: 12$

Q91. The speed of boat in still water is $8.50 \mathrm{~km} / \mathrm{h}$. If it takes thrice the time to row D km in upstream than to row in downstream, then find the speed of stream.
(a) $4.25 \mathrm{~km} / \mathrm{h}$
(b) $5.05 \mathrm{~km} / \mathrm{h}$
(c) $2.15 \mathrm{~km} / \mathrm{h}$
(d) $6.75 \mathrm{~km} / \mathrm{h}$
(e) $5.85 \mathrm{~km} / \mathrm{h}$

Q92. Two train $X$ and $Y$ running in opposite direction can cross each other in 33.6 seconds. The ratio of length of train $X$ to $Y$ is 2:5 and speed of train $X$ and train $Y$ is $54 \mathrm{~km} / \mathrm{h}$ and $36 \mathrm{~km} / \mathrm{h}$ respectively. Find the sum of length of train $X$ and train Y.
(a) 800 meters
(b) 820 meters
(c) 860 meters
(d) 840 meters
(e) 880 meters

Q93. The length of a rectangle is 8 cm more than that of its breadth and perimeter of the rectangle is 96 cm . If perimeter of a square is $450 \%$ length of the rectangle, then find the side of the square.
(a) 31.5 cm
(b) 28.5 cm
(c) 35.5 cm
(d) 22.5 cm
(e) 25.5 cm

Q94. Monthly income of A is Rs. 25000 and monthly expenditure is Rs. 12000 . If his income is increased by $20 \%$ and his saving also increased by $25 \%$, then find the (approx.) percentage increase in his monthly expenditure.
(a) $22 \%$
(b) $5 \%$
(c) $12 \%$
(d) $15 \%$
(e) $18 \%$

Q95. Five years hence, the ratio of ages of $P$ and $Q$ will be equal to the ratio of the ages of $R$ and $Q$ three years ago. If $P$ is two years older than $R$ and present age of $Q$ is 15 years, then find the present age of $R$.
(a) 12 years
(b) 15 years
(c) 11 years
(d) 14 years
(e) 18 years


Directions (96-100): Pie charts shows percentage distribution of total population (males + females) in five (A, B, C, D and E) different villages. Read the following pie chart carefully and answer the questions given below.
Note: Total number of females in each village is 80 .


Q96. Total number of males in village F is $100 \%$ more than that of village $D$ and total females in village $A$ is $60 \%$ less than that of in village F. Find the total population in village F.
(a) 290
(b) 280
(c) 220
(d) 240
(e) 250

Q97. Find the ratio of total number of males in E and B together to total population in A.
(a) $19: 18$
(b) $18: 19$
(c) $17: 19$
(d) $19: 17$
(e) 21:20

Q98. The number of females in B is what percent more/less than the number of males in A ?
(a) $70 \frac{3}{7} \%$
(b) $74 \frac{3}{7} \%$
(c) $72 \frac{3}{7} \%$
(d) $71 \frac{3}{7} \%$
(e) $75 \frac{3}{7} \%$

Q99. The ratio of total population in village X to village C is 14:9 respectively and number of males in village X is $28 \frac{4}{7} \%$ of the total population. Find the females in village X is how much more or less than males in village B?
(a) 40
(b) 62
(c) 56
(d) 60
(e) 55

Q100. In village B, $40 \%$ of total males are literate and the ratio of illiterate to literate females is $3: 5$. Find the total illiterate population (males + females) in B.
(a) 172
(b) 126
(c) 152
(d) 168
(e) 120

## Solutions

S1. Ans.(d)
Sol. As the given sentence is talking about the plan of to establish exclusive body to carry out projects for linking rivers, so it can be seen that the correct filer would be 'execute' and 'implement'. Hence, the correct answer choice would be option (d).

## S2. Ans.(a)

Sol. In the given sentence author is talking about the gift given by non-Muslim communities to vandalised mosque as a sign of peace. So, on the basis of this information it can be seen that correct filler would be 'harmony'. Hence, the correct answer choice would be option (a).

## S3. Ans.(b)

Sol. In the given sentence, author is comparing the number of Telugu speakers in Assam to the number of other languages. On the basis of this information it can be seen that only 'combined' can fit the given blank to make a contextually meaningful sentence. Hence, the correct answer choice would be option (b).

## S4. Ans.(e)

Sol. Given sentence is talking about the role of street lights in analysing the safety of work commute for women. On the basis of this information, it can be seen that the appropriate filler for the given blank would be 'assessment' and 'judgement'. Hence, the correct answer choice would be option (e).

## S5. Ans.(a)

Sol. As the given sentence is talking about summit on Gender Equality which is being organised in New Delhi by UNGCN, it can be seen that appropriate filler for the given would be 'hosting'. Hence, the correct answer choice would be option (a).

## S6. Ans.(b)

Sol. Given sentence is talking about the use of 'drones' in agricultural activities. On the basis of this information it can be seen that the most appropriate filler would be
'deploying'. Hence, the correct answer choice would be option (b).

## S7. Ans.(a)

Sol. Among the given statements, (I) and (II) can logically be connected with "WHEREAS". The correct statement thus formed will be:
"Renewable energy sources will grow in India whereas more focus on using crude oil will be observed in the United States of America."

## S8. Ans.(c)

Sol. Statements (I) and (II) can be joined using the connector "in contrast". The meaningful sentence thus formed is "The prices of housing units have sky rocketed in contrast land prices seem to have hit an all-time low' Hence, option (c) is the most viable answer choice.

## S9. Ans.(a)

Sol. Statements (I) and (I) can be joined together using the phrase "SO THAT". Therefore, the statement thus formed is "The bank diverted all the money into the stock market so that the uncontrolled spiral of the economy could be controlled."

## S10. Ans.(c)

Sol. The connecter which joins the sentences to make grammatical as well as contextual sense is option(c)"The driver was prohibited from driving till his eye surgery was completed."

## S11. Ans.(e)

Sol. 'In order to' expresses the purpose and answers the question why something is done. The sentences (I) and (II) can be joined using "in order to" -In order to increase the number of tests being conducted the government has ordered a larger number of test kits". Hence, option (e) becomes the most suitable choice.

## S12. Ans.(b)

Sol. Given sentence is talking about the incident of arrest of a man and his daughter in relation to sheltering suicide bomber of Pulwama attack. On the basis of this it can be seen that the correct arrangement would be DBCA. Hence, the correct answer choice would be (b)

## S13. Ans.(d)

Sol. In the given sentence author is talking about the discussion between Centre and states over the updation of National Population Register. So, on the basis of this information, it can be seen that correct arrangement would be ACDB. Hence, the correct answer choice would be option (d).

## S14. Ans.(a)

Sol. In the given sentence it is mentioned that Capital's most wanted criminal with his three accomplices was arrested. So, on the basis of this it can be seen that correct arrangement would be BCAD. Hence, the correct answer choice would be option (a).

## S15. Ans.(c)

Sol. Given sentence is talking about the direction given by Delhi High Court to police to install CCTV cameras in vulnerable areas of national capital. So, on the basis of this it can be seen that the correct arrangement would be CDBA. Hence, the correct option choice would be option (c).

## S16. Ans.(b)

Sol. Given sentence is talking about the request made by Delhi University Officials on the occasion of Holi to ensure that order is maintained in the campus. So, on the basis of this information it can be seen that the correct arrangement would be DBCA. Hence, the correct answer choice would be option (b).


## S17. Ans.(e)

Sol. To validate the answer to the question refer to the lines "Studies conducted world wide have shown that training and skilling a workman increases his efficiency from 3 to 12 times, depending upon the level of training. Clearly, an increase in efficiency through training across the economic spectrum can lead to tremendous increase in output with consequential increase in the GDP."
From the quoted lines all options can be inferred hence, answer to this question would be option (e).

## S18. Ans.(d)

Sol. To validate the answer to the question refer to the lines "What we need is that training facilities be created for all these job descriptions with proper teaching and learning material. This is the need of hour to make the country an economic superpower and achieve the 5 trillion GDP target without any difficulty."
From the quoted lines both options (b) and (c) can be inferred hence, answer to this question would be option (d).

## S19. Ans.(d)

Sol. To validate the answer to the question refer to the lines "Beginning with Woods dispatch of 1854 - the communication from Sir Charles Wood to the then Governor-General of India Lord Dalhousie that underscored vocational and women's education, Wood suggested that primary schools must adopt vernacular languages, high schools must adopt Anglo vernacular language and on college-level English medium for education"
From the quoted lines both options (b) and (c) can be inferred hence, answer to this question would be option (d).

## S20. Ans.(c)

Sol. To validate the answer to the question refer to the lines "It is clear from empirical evidence that we have gathered over a period of time that the more literate and more trained manpower countries have, the more they are economically developed. All the data gathered over centuries shows a direct correlation between economic prosperity of a nation and the percentage of trained manpower."
From the quoted lines only option (c) can be inferred hence, answer to this question would be option (c).
Option (a) and (b) is not mentioned anywhere in the passage.

## S21. Ans.(c)

Sol. To validate the answer to the question refer to the lines "It is not that in India we were not aware of the importance of vocational education and training. Beginning with Woods dispatch of 1854 - the communication from Sir Charles Wood to the then Governor-General of India Lord Dalhousie that underscored vocational and women's education"
From the quoted lines only option (c) can be inferred hence, answer to this question would be option (c).
Option (a) is not mentioned anywhere in the passage.

## S22. Ans.(d)

Sol. Sporadically means occasionally or at irregular intervals.
Consistently means in every case or on every occasion; invariably.
Persistently means continuously.
Typically means in most cases; usually.
So, from the given options, 'sporadically' is the closest antonym of the given word and hence, the correct answer choice.

## S23. Ans.(c)

Sol. Going through the given options, it can be clearly seen that correct answer choice would be option (c) i.e. 'be created for all these'.

## S24. Ans.(a)

Sol. Intrinsic means belonging naturally; essential.
Integral means essential or fundamental.
Dispensable means able to be replaced or done without; superfluous.
Extrinsic means not part of the essential nature of someone or something; coming or operating from outside.
Going through the meaning of the given words it can be clearly seen that correct answer choice would be option (a).

## S25. Ans.(c)

Sol. Among the given highlighted words, 'excess' has been placed incorrectly and must be replaced with 'access'. Hence, option (c) is the most suitable answer choice.

## S26. Ans.(d)

Sol. Among the given highlighted words, 'otherwice' has been placed incorrectly and must be replaced with 'otherwise'. Hence, option (d) is the most suitable answer choice.
Prolonged: continuing for a long time or longer than usual; lengthy.

S27. Ans.(e)
Sol. All the given highlighted words have been correctly spelt and do not require any corrections. Hence, option (e) is the most suitable answer choice.
Phishing: the fraudulent practice of sending emails purporting to be from reputable companies in order to induce individuals to reveal personal information,

## S28. Ans.(b)

Sol. Among the given highlighted words, 'anomaliese' has been placed incorrectly and must be replaced with 'anomalies'. Hence, option (b) is the most suitable answer choice.
Anomalies: something that deviates from what is standard, normal, or expected.

## S29. Ans.(c)

Sol. Among the given highlighted words, 'outbrake' has been placed incorrectly and must be replaced with 'outbreak'. Hence, option (c) is the most suitable answer choice.
Outbreak: a sudden occurrence of something unwelcome, such as war or disease.

## S30. Ans.(b)

Sol. The starter (iii) can be used to connect the given set of two sentences to form a meaningful statement. However, the starters (i) and (ii) are incorrect as it would alter the meaning of the actual sentence. The correct statements thus formed will be:
"Though the bank plans to set aside ₹100 crore to ₹200 crore for this purpose, it wants to run this scheme on a pilot basis at least for six months."

S31. Ans.(a)
Sol.

$+1+1+1+1+1+1$

## S32. Ans.(e)

Sol. From the given statements, green colour box is placed two places above the white colour box and both are placed at prime numbered position. Here we have 2 possible cases. Yellow colour box is placed just above pink colour box which is placed at even position.

| Position | Case 1 | Case 2 |
| :---: | :---: | :---: |
|  | Box | Box |
| 7 | Green | Yellow |
| 6 |  | Pink |
| 5 | White | Green |
| 4 |  |  |
| 3 | Yellow | White |
| 2 | Pink |  |
| 1 |  |  |

Not more than one box is placed below pink colour box. Here case 2 is ruled out now because more than one box is placed below pink colour box.

| Position | Case 1 | Case 2 |
| :---: | :---: | :---: |
|  | Box | Box |
| 7 | Green | Yollow |
| 6 |  | Pink |
| 5 | White | Groen |
| 4 |  |  |
| 3 | Yellow | White |
| 2 | Pink |  |
| 1 |  |  |

Both Blue and purple colour box are placed at even position. Only Marron colour box is left which is placed at the bottom most position. So, the final arrangement is-

| Position | Box |
| :---: | :---: |
| 7 | Green |
| 6 | Blue/Purple |
| 5 | White |
| 4 | Purple/Blue |
| 3 | Yellow |
| 2 | Pink |
| 1 | Marron |

Position of blue colour box is not fixed so we can't determine the definite answer

## S33. Ans.(b)

Sol. From the given statements, green colour box is placed two places above the white colour box and both are placed at prime numbered position. Here we have 2 possible cases. Yellow colour box is placed just above pink colour box which is placed at even position.

| Position | Case 1 | Case 2 |
| :---: | :---: | :---: |
|  | Box | Box |
| 7 | Green | Yellow |
| 6 |  | Pink |
| 5 | White | Green |
| 4 |  |  |
| 3 | Yellow | White |
| 2 | Pink |  |
| 1 |  |  |

Not more than one box is placed below pink colour box. Here case 2 is ruled out now because more than one box is placed below pink colour box.

| Position | Case 1 | Gase 2 |
| :---: | :---: | :---: |
|  | Box | Box |
| 7 | Green | Yollow |
| 6 |  | Pink |
| 5 | White | Green |
| 4 |  |  |
| 3 | Yellow | White |
| 2 | Pink |  |
| 1 |  |  |

Both Blue and purple colour box are placed at even position. Only Marron colour box is left which is placed at the bottom most position. So, the final arrangement is-

| Position | Box |
| :---: | :---: |
| 7 | Green |
| 6 | Blue/Purple |
| 5 | White |
| 4 | Purple/Blue |
| 3 | Yellow |
| 2 | Pink |
| 1 | Marron |

Two boxes are placed below the yellow colour box

## S34. Ans.(e)

Sol. From the given statements, green colour box is placed two places above the white colour box and both are placed at prime numbered position. Here we have 2 possible cases. Yellow colour box is placed just above pink colour box which is placed at even position.

| Position | Case 1 | Case 2 |
| :---: | :---: | :---: |
|  | Box | Box |
| 7 | Green | Yellow |
| 6 |  | Pink |
| 5 | White | Green |
| 4 |  |  |
| 3 | Yellow | White |
| 2 | Pink |  |
| 1 |  |  |

Not more than one box is placed below pink colour box. Here case 2 is ruled out now because more than one box is placed below pink colour box.

| Position | Case 1 | Case 2 |
| :---: | :---: | :---: |
|  | Box | Box |
| 7 | Green | Yellow |
| 6 |  | Pink |
| 5 | White | Green |
| 4 |  |  |
| 3 | Yellow | White |
| 2 | Pink |  |
| 1 |  |  |

Both Blue and purple colour box are placed at even position. Only Marron colour box is left which is placed at the bottom most position. So, the final arrangement is-

| Position | Box |
| :---: | :---: |
| 7 | Green |
| 6 | Blue/Purple |
| 5 | White |
| 4 | Purple/Blue |
| 3 | Yellow |
| 2 | Pink |
| 1 | Marron |

Either Purple or Blue box is placed at $4^{\text {th }}$ position
S35. Ans.(c)
Sol.


S36. Ans.(b)
Sol.


S37. Ans.(a)
Sol.


S38. Ans.(d)
Sol.


## S39. Ans.(b)

Sol. From the given statements, T is the only immediate neighbour of Y. Here we have 2 possible cases. C sits 3rd to the left of T and both face the same direction.

$A$ and $R$ sit $2^{\text {nd }}$ to the left of each other. A and C face opposite direction.

$U$ sits immediate right of $A$ and both face opposite direction. Here case 1 is ruled out now because not satisfy the following condition - The number of persons face north is more than the number of persons face south.

$B$ and $Y$ sit left of each other. So, the final arrangement is-


Two persons - A and B face the south direction

S40. Ans.(d)
Sol. From the given statements, $T$ is the only immediate neighbour of Y. Here we have 2 possible cases. C sits $3^{\text {rd }}$ to the left of T and both face the same direction.

$A$ and $R$ sit $2^{\text {nd }}$ to the left of each other. A and C face opposite direction.

$U$ sits immediate right of $A$ and both face opposite direction. Here case 1 is ruled out now because not satisfy the following condition - The number of persons face north is more than the number of persons face south.

$B$ and $Y$ sit left of each other. So, the final arrangement is-


Three persons sit to the right of R

## S41. Ans.(e)

Sol. From the given statements, $T$ is the only immediate neighbour of Y. Here we have 2 possible cases. C sits $3^{\text {rd }}$ to the left of T and both face the same direction.


A and R sit $2^{\text {nd }}$ to the left of each other. A and C face opposite direction.

$U$ sits immediate right of $A$ and both face opposite direction. Here case 1 is ruled out now because not satisfy the following condition - The number of persons face north is more than the number of persons face south.

$B$ and $Y$ sit left of each other. So, the final arrangement is-


The number of persons sit between $R$ and $U$ is same as the number of persons sit to the left of both $C$ and $B$

## S42. Ans.(b)

Sol. From the given statements, T is the only immediate neighbour of Y. Here we have 2 possible cases. C sits $3^{\text {rd }}$ to the left of T and both face the same direction.

$A$ and $R$ sit $2^{\text {nd }}$ to the left of each other. A and C face opposite direction.

$U$ sits immediate right of $A$ and both face opposite direction. Here case 1 is ruled out now because not satisfy the following condition - The number of persons face north is more than the number of persons face south.

$B$ and $Y$ sit left of each other. So, the final arrangement is-


A is immediate neighbour of $U$ and $T$ sits $4^{\text {th }}$ to the left of $A$

## S43. Ans.(e)

Sol. I follow because some French are not Russian.
II follow because all part of Hindi is in English and no Hindi is Russian so there is no possibility that All English being Russian.


## S44. Ans.(d)

Sol. I does not follow because there is no direct relation between cricket and bat.
II does not follow because there is no direct relation between ball and bat


## S45. Ans.(e)

Sol. I follow because we have given only a few TLM is ETH which means some TLM is not ETH holds true
II follow because BTC only related with ETH so no TLM is BTC holds true


## S46. Ans.(b)

Sol. I does not follow because there is no direct relation between green and purple
II follow because No purple is white and some part of purple is in blue so Some Blue are not White holds true


Sol. K lives either on topmost floor or on bottommost floor. $D$ lives east of $K$. We have two possible cases here. Three floors gap between D and H. H and K lives in the same flat. C lives to the west of A and both live on an odd numbered floor. J lives just below C in the same flat.

| Floor | Flat P | Flat Q | Flat P | Flat Q |
| :---: | :---: | :---: | :---: | :---: |
|  | Case 1 |  | Case 2 |  |
| 5 | K | D | H |  |
| 4 |  |  |  |  |
| 3 | C | A | C | A |
| 2 |  |  |  |  |
| 1 | H |  | K | D |

J lives just below C in the same flat. L lives to the north-east of J. One floor gap between L and B. G lives on one of the floors which is below B's floor. Case 2 will eliminate here. So, the final arrangement is:

| Floor | Flat P | Flat Q |
| :---: | :---: | :---: |
| 5 | K | D |
| 4 | E | L |
| 3 | C | A |
| 2 | J | B |
| 1 | H | G |

## S48. Ans.(c)

Sol. K lives either on topmost floor or on bottommost floor. D lives east of K. We have two possible cases here. Three floors gap between D and H . H and K lives in the same flat. C lives to the west of A and both live on an odd numbered floor. J lives just below C in the same flat.

| Floor | Flat P | Flat Q | Flat P | Flat Q |
| :---: | :---: | :---: | :---: | :---: |
|  | Case 1 |  | Case 2 |  |
| 5 | K | D | H |  |
| 4 |  |  |  |  |
| 3 | C | A | C | A |
| 2 |  |  |  |  |
| 1 | H |  | K | D |

J lives just below C in the same flat. L lives to the north-east of J. One floor gap between L and B. G lives on one of the floors which is below B's floor. Case 2 will eliminate here. So, the final arrangement is:

| Floor | Flat P | Flat Q |
| :---: | :---: | :---: |
| 5 | K | D |
| 4 | E | L |
| 3 | C | A |
| 2 | J | B |
| 1 | H | G |

## S49. Ans.(a)

Sol. K lives either on topmost floor or on bottommost floor. D lives east of $K$. We have two possible cases here. Three floors gap between $D$ and $H . H$ and $K$ lives in the same flat. C lives to the west of A and both live on an odd numbered floor. J lives just below C in the same flat.

| Floor | Flat P | Flat Q | Flat P | Flat Q |
| :---: | :---: | :---: | :---: | :---: |
|  | Case 1 |  | Case 2 |  |
| 5 | K | D | H |  |
| 4 |  |  |  |  |
| 3 | C | A | C | A |
| 2 |  |  |  |  |
| 1 | H |  | K | D |

J lives just below C in the same flat. L lives to the north-east of J. One floor gap between L and B. G lives on one of the floors which is below B's floor. Case 2 will eliminate here. So, the final arrangement is:

| Floor | Flat P | Flat Q |
| :---: | :---: | :---: |
| 5 | K | D |
| 4 | E | L |
| 3 | C | A |
| 2 | J | B |
| 1 | H | G |

## S50. Ans.(b)

Sol. K lives either on topmost floor or on bottommost floor. D lives east of K. We have two possible cases here. Three floors gap between D and H . H and K lives in the same flat. C lives to the west of A and both live on an odd numbered floor. J lives just below C in the same flat.

| Floor | Flat P | Flat Q | Flat P | Flat Q |
| :---: | :---: | :---: | :---: | :---: |
|  | Case 1 |  | Case 2 |  |
| 5 | K | D | H |  |
| 4 |  |  |  |  |
| 3 | C | A | C | A |
| 2 |  |  |  |  |
| 1 | H |  | K | D |

$J$ lives just below C in the same flat. L lives to the north-east of J. One floor gap between L and B. G lives on one of the floors which is below B's floor. Case 2 will eliminate here. So, the final arrangement is:

| Floor | Flat P | Flat Q |
| :---: | :---: | :---: |
| 5 | K | D |
| 4 | E | L |
| 3 | C | A |
| 2 | J | B |
| 1 | H | G |

## S51. Ans.(e)

Sol. K lives either on topmost floor or on bottommost floor. D lives east of K. We have two possible cases here. Three floors gap between D and $\mathrm{H} . \mathrm{H}$ and K lives in the same flat. C lives to the west of A and both live on an odd numbered floor. J lives just below C in the same flat.

| Floor | Flat P | Flat Q | Flat P | Flat Q |
| :---: | :---: | :---: | :---: | :---: |
|  | Case 1 |  | Case 2 |  |
| 5 | K | D | H |  |
| 4 |  |  |  |  |
| 3 | C | A | C | A |
| 2 |  |  |  |  |
| 1 | H |  | K | D |

J lives just below C in the same flat. L lives to the north-east of J. One floor gap between L and B. G lives on one of the floors which is below B's floor. Case 2 will eliminate here. So, the final arrangement is:

| Floor | Flat $\mathbf{P}$ | Flat Q |
| :---: | :---: | :---: |
| 5 | K | D |
| 4 | E | L |
| 3 | C | A |
| 2 | J | B |
| 1 | H | G |



S52. Ans.(c)
Sol.

| Word | Code |
| :---: | :---: |
| Money | 21 |
| In | 12 |
| The | 17 |
| Bank | 35 |
| Royal | 42 |
| Rumble | 16 |
| Sunday/Match | $28 / 29$ |
| Winners/win | $22 / 55$ |

" 4235 " is the code for "royal bank"

## S53. Ans.(e)

Sol.

| Word | Code |
| :---: | :---: |
| Money | 21 |
| In | 12 |
| The | 17 |
| Bank | 35 |
| Royal | 42 |
| Rumble | 16 |
| Sunday/Match | $28 / 29$ |
| Winners/win | $22 / 55$ |

29 is coded for either Sunday or match
S54. Ans.(e)
Sol.

| Word | Code |
| :---: | :---: |
| Money | 21 |
| In | 12 |
| The | 17 |
| Bank | 35 |
| Royal | 42 |
| Rumble | 16 |
| Sunday/Match | $28 / 29$ |
| Winners/win | $22 / 55$ |

" 1716 " is the code for "the rumble"

S55. Ans.(d)
Sol.

| Word | Code |
| :---: | :---: |
| Money | 21 |
| In | 12 |
| The | 17 |
| Bank | 35 |
| Royal | 42 |
| Rumble | 16 |
| Sunday/Match | $28 / 29$ |
| Winners/win | $22 / 55$ |

" 22 " is coded for Either Winners or win

## S56. Ans.(d)

Sol. Two persons sit between $S$ and T. So, here we have two possible cases. V sits second to the right of T .


One person sits between $V$ and $W$ who doesn't sit adjacent to S . So, case 2 gets eliminated here. W sits three places away from S. No one sits between W and Q when counts from the right of W . Thus the final arrangement is:


10 persons sit around the circular table.

## S57. Ans.(d)

Sol. Two persons sit between S and T . So, here we have two possible cases. V sits second to the right of T .


One person sits between $V$ and $W$ who doesn't sit adjacent to S . So, case 2 gets eliminated here. W sits three places away from S. No one sits between $W$ and $Q$ when counts from the right of W . Thus the final arrangement is:


Statements II and III are not true.

## S58. Ans.(c)

Sol. Two persons sit between S and T . So, here we have two possible cases. V sits second to the right of T .


One person sits between $V$ and $W$ who doesn't sit adjacent to S . So, case 2 gets eliminated here. W sits three places away from $S$. No one sits between $W$ and $Q$ when counts from the right of W . Thus the final arrangement is:


Either one or seven persons sit between $U$ and $T$ after the rearrangement.

## S59. Ans.(b)

Sol. Two persons sit between S and T. So, here we have two possible cases. V sits second to the right of T .


One person sits between $V$ and $W$ who doesn't sit adjacent to S . So, case 2 gets eliminated here. W sits three places away from $S$. No one sits between $W$ and $Q$ when counts from the right of W . Thus the final arrangement is:


V sits third to the left of Q .

## S60. Ans.(e)

Sol. Two persons sit between S and T. So, here we have two possible cases. V sits second to the right of T.


One person sits between $V$ and $W$ who doesn't sit adjacent to S . So, case 2 gets eliminated here. W sits three places away from S. No one sits between W and Q when counts from the right of W . Thus the final arrangement is:


Seven persons sit between $Q$ and the one who sits immediate right of $V$ when counts from the right of $Q$.

## S61. Ans.(b)

Sol. S is daughter in law of M who is father of P. M has two children. So, here we have two possible cases:
Case 1
Case 2


$(+/-)-\mathrm{P}(+)=\mathrm{S}(-)$
K is father of O who is the unmarried sibling of M . N is sister -in -law of $O$ and vice versa. T is child of $S$ but not $P$. So, case 1 gets eliminated here.


$J$ is paternal grandparent of $P$ who is only sister of $Q$. Gender of T and Q is same. Thus, the final arrangement is:


Three married couples are there in the family.


S62. Ans.(c)
Sol. S is daughter in law of M who is father of P . M has two children. So, here we have two possible cases:

## Case 1

Case 2



K is father of O who is the unmarried sibling of M . N is sister -in -law of $O$ and vice versa. $T$ is child of $S$ but not $P$. So, case 1 gets eliminated here.


$J$ is paternal grandparent of $P$ who is only sister of $Q$. Gender of $T$ and $Q$ is same. Thus, the final arrangement is:


J is mother of 0 .

## S63. Ans.(e)

Sol. S is daughter in law of M who is father of P . M has two children. So, here we have two possible cases:


K is father of O who is the unmarried sibling of M . N is sister -in -law of $O$ and vice versa. $T$ is child of $S$ but not $P$. So, case 1 gets eliminated here.



J is paternal grandparent of P who is only sister of Q . Gender of $T$ and $Q$ is same. Thus, the final arrangement is:


All of them are female members except T.
S64. Ans.(e)
Sol. I. T > I (True)
II. X > I (True)

## S65. Ans.(a)

Sol. I. Z $\leq 0$ (True)
II. $\mathrm{N}>\mathrm{O}$ (False)

## S66. Ans.(a)

Sol.

$$
\begin{aligned}
& 40 \% \text { of } \sqrt[3]{3375} \times 10=? \\
& \frac{40}{100} \times 15 \times 10=? \\
& 60=?
\end{aligned}
$$

S67. Ans.(b)
Sol.
$200 \times 7-\frac{2}{9}$ of $171=$ ? $\times 3$
$\frac{1400-38}{3}=$ ?
$454=$ ?

S68. Ans.(d)
Sol.

$$
\begin{aligned}
& 23^{2}-20 \% \text { of } 400=? \div 2 \\
& 529-80=? \div 2 \\
& 898=?
\end{aligned}
$$

S69. Ans.(a)
Sol.
$\sqrt{(18 \times 10)+16}=$ ? $-45 \%$ of 500
$14=$ ? -225
$239=$ ?

## S70. Ans.(b)

Sol. 820-124+20\% of 880=?
696+176=?
872=?

S71. Ans.(b)
Sol. For school P, Total number of students participated in both games $=120$
Number of students participated in cricket $=\frac{120+40}{2}=80$
Number of students participated in hockey $=120-80=40$
Similarly,

| Schools | Total <br> number of <br> participants | Number of <br> participants <br> in cricket | Number <br> participants <br> in hockey |
| :---: | :---: | :---: | :---: |
| $\mathbf{P}$ | 120 | 80 | 40 |
| $\mathbf{Q}$ | 160 | 120 | 40 |
| $\mathbf{R}$ | 100 | 60 | 40 |
| $\mathbf{S}$ | 240 | 140 | 100 |
| $\mathbf{T}$ | 180 | 120 | 60 |

Number of students participated in cricket from school $\mathrm{F}=120 \times \frac{120}{100}=144$
Required difference $=144-140=4$
S72. Ans.(a)
Sol. For school P, Total number of students participated in both games $=120$
Number of students participated in cricket $=\frac{120+40}{2}=80$
Number of students participated in hockey $=120-80=40$
Similarly,

| Schools | Total <br> number of <br> participants | Number of <br> participants <br> in cricket | Number <br> participants <br> in hockey |
| :---: | :---: | :---: | :---: |
| P | 120 | 80 | 40 |
| Q | 160 | 120 | 40 |
| R | 100 | 60 | 40 |
| S | 240 | 140 | 100 |
| T | 180 | 120 | 60 |

Required average $=\frac{40+40+100}{3}=60$


## S73. Ans.(d)

Sol. For school P, Total number of students participated in both games $=120$
Number of students participated in cricket $=\frac{120+40}{2}=80$
Number of students participated in hockey $=120-80=40$
Similarly,

| Schools | Total <br> number of <br> participants | Number of <br> participants <br> in cricket | Number <br> participants <br> in hockey |
| :---: | :---: | :---: | :---: |
| P | 120 | 80 | 40 |
| Q | 160 | 120 | 40 |
| R | 100 | 60 | 40 |
| S | 240 | 140 | 100 |
| T | 180 | 120 | 60 |

Number of students participated in volleyball from school $P=\frac{40}{8} \times 5=25$ Required $\%=\frac{25}{80} \times 100=31.25 \%$

## S74. Ans.(e)

Sol. For school P, Total number of students participated in both games $=120$
Number of students participated in cricket $=\frac{120+40}{2}=80$
Number of students participated in hockey $=120-80=40$ Similarly,

| Schools | Total <br> number of <br> participants | Number of <br> participants <br> in cricket | Number <br> participants <br> in hockey |
| :---: | :---: | :---: | :---: |
| $\mathbf{P}$ | 120 | 80 | 40 |
| Q | 160 | 120 | 40 |
| $\mathbf{R}$ | 100 | 60 | 40 |
| $\mathbf{S}$ | 240 | 140 | 100 |
| $\mathbf{T}$ | 180 | 120 | 60 |

Required ratio $=(140+120): 180=13: 9$

## S75. Ans.(a)

Sol. For school P, Total number of students participated in both games $=120$
Number of students participated in cricket $=\frac{120+40}{2}=80$
Number of students participated in hockey $=120-80=40$ Similarly,

| Schools | Total <br> number of <br> participants | Number of <br> participants <br> in cricket | Number <br> participants <br> in hockey |
| :---: | :---: | :---: | :---: |
| $\mathbf{P}$ | 120 | 80 | 40 |
| Q | 160 | 120 | 40 |
| $\mathbf{R}$ | 100 | 60 | 40 |
| S | 240 | 140 | 100 |
| T | 180 | 120 | 60 |

Number of students participated in hockey from school $X=(70 \times 3)-(40+100)=70$
Number of students participated in cricket from school $X=70 \times \frac{6}{7}=60$
Required dfifference $=(70+60)-120=10$
S76. Ans.(b)
Sol.


## S77. Ans.(a)

Sol.
$1204-19^{2}=843$
$843-16^{2}=587$
$587-13^{2}=418$
$418-10^{2}=318$
$318-7^{2}=269$
$269-4^{2}=253$

## S78. Ans.(e)

Sol. $24 \div 1=24$
$24 \times 2=48$
$48 \div 3=16$
$16 \times 4=64$
$64 \div 5=12.8$
S79.
Ans.(d)
Sol. $10 \times 0.5+1=6$
$6 \times 1+1=7$
$7 \times 1.5+1=11.5$
$11.5 \times 2+1=24$
$24 \times 2.5+1=61$
$61 \times 3+1=184$


S80. Ans.(a)
Sol. $25 \times 2=50$
$50+10=60$
$60 \times 2=120$
$120+10=130$
$130 \times 2=260$
$260+10=270$

## S81. Ans.(a)

Sol. Cars manufactured by Z in 2021 and $Y$ in 2020 is 5 x \& $8 x$ respectively.
Cars manufactured by X in $2020=\frac{11}{8} \times 8 x=11 x$
Cars manufactured by X in $2021=5 \mathrm{x}+20$
Cars manufactured by Z in $2020=11 \mathrm{x}-15$
ATQ.
$11 x+11 x-15+8 x=585$
$30 x=600$
$x=20$

| Companies | 2020 | $\mathbf{2 0 2 1}$ |
| :--- | :--- | :--- |
| $\mathbf{X}$ | 220 | 120 |
| $\mathbf{Y}$ | 160 | $\cdots-$ |
| $\mathbf{Z}$ | 205 | 100 |

Cars manufactured by $Y$ in $2021=220 \times \frac{80}{100}=176$
Required ratio $=160: 176=10: 11$

## S82. Ans.(b)

Sol. Cars manufactured by Z in 2021 and $Y$ in 2020 is 5 x \& 8 x respectively.
Cars manufactured by X in $2020=\frac{11}{8} \times 8 x=11 x$
Cars manufactured by X in $2021=5 x+20$
Cars manufactured by Z in $2020=11 \mathrm{x}-15$
ATQ.
$11 x+11 x-15+8 x=585$
$30 x=600$
$x=20$

| Companies | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ |
| :--- | :--- | :--- |
| $\mathbf{X}$ | 220 | 120 |
| $\mathbf{Y}$ | 160 | $\cdots-$ |
| $\mathbf{Z}$ | 205 | 100 |

Required difference $=(160+205)-(220+120)=25$

## S83. Ans.(e)

Sol. Cars manufactured by Z in 2021 and $Y$ in 2020 is 5 x \& $8 x$ respectively.

Cars manufactured by X in $2020=\frac{11}{8} \times 8 x=11 x$
Cars manufactured by $X$ in $2021=5 x+20$
Cars manufactured by Z in $2020=11 \mathrm{x}-15$
ATQ.
$11 x+11 x-15+8 x=585$
$30 x=600$
$x=20$

| Companies | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ |
| :--- | :--- | :--- |
| $\mathbf{X}$ | 220 | 120 |
| $\mathbf{Y}$ | 160 | $\cdots$ |
| $\mathbf{Z}$ | 205 | 100 |

We have no data about cars manufactured by Y in 2021 So, cannot be determined.

## S84. Ans.(d)

Sol. Cars manufactured by Z in 2021 and $Y$ in 2020 is $5 x$ \& 8x respectively.
Cars manufactured by X in $2020=\frac{11}{8} \times 8 x=11 x$
Cars manufactured by X in $2021=5 \mathrm{x}+20$
Cars manufactured by Z in $2020=11 \mathrm{x}-15$
ATQ.
$11 x+11 x-15+8 x=585$
$30 x=600$
$x=20$

| Companies | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ |
| :--- | :--- | :--- |
| $\mathbf{X}$ | 220 | 120 |
| $\mathbf{Y}$ | 160 | $\cdots$ |
| $\mathbf{Z}$ | 205 | 100 |

Required $\%=\frac{160-100}{100} \times 100=60 \%$

## S85. Ans.(d)

Sol. Cars manufactured by Z in 2021 and $Y$ in 2020 is 5 x \& 8x respectively.
Cars manufactured by X in $2020=\frac{11}{8} \times 8 x=11 x$
Cars manufactured by X in $2021=5 \mathrm{x}+20$
Cars manufactured by Z in $2020=11 \mathrm{x}-15$
ATQ.
$11 x+11 x-15+8 x=585$
$30 x=600$
$x=20$

| Companies | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ |
| :--- | :--- | :--- |
| $\mathbf{X}$ | 220 | 120 |
| $\mathbf{Y}$ | 160 | $\cdots$ |
| $\mathbf{Z}$ | 205 | 100 |

Required average $=\frac{160+120}{2}=140$

## S86. Ans.(b)

Sol. Let efficiency of a man and a woman be ' $m$ ' units/day and ' $w$ ' units/day respectively.
ATQ.
$(10 \times m+15 \times w) 15=(18 \times w) 25$
$\frac{m}{w}=\frac{3}{2}=\frac{3 x}{2 x}$
Req. days $=\frac{(18 \times 2 x) 25}{25 \times 3 x}=12$ days

## S87. Ans.(a)

Sol.
Composite compound interest $=\left(12+12+\frac{12 \times 12}{100}\right) \%=25.44 \%$
ATQ.
$=2000 \times \frac{25.44}{100}-\frac{1500 \times 5 \times 3}{100}$
$=508.8-225=$ Rs. 283.8

## S88. Ans.(e)

## Sol.

Let present age of $\mathrm{Q}=2 \mathrm{x}$
Present age of $\mathrm{P}=2 x \times \frac{350}{100}=7 x$
And present age of $\mathrm{R}=7 x \times \frac{50}{100}=3.5 x$
ATQ.
$3.5 x+2+2 x+2=48$
$5.5 x=44$
$x=8$
Age of P four years ago $=7 \times 8-4=52$ years

## S89. Ans.(d)

## Sol.

Let cost price of each article be Rs.100x Selling price of first article $=$ Rs. 87.5 x
ATQ.
$3500=87.5 x$
$x=40$
Total selling price (two articles) $=(200 \times 40) \times \frac{120}{100}=R s .9600$ Selling price of second article= $9600-3500=$ Rs. 6100
Req. profit $\%=\frac{6100-4000}{4000} \times 100=52.5 \%$

## S90. Ans.(b)

Sol.
ATQ.

| $\frac{6}{13}$ | $\frac{5}{9}$ |
| :---: | :---: |
| $\frac{5}{11}-\frac{4}{9}$ | $\frac{6}{13}-\frac{5}{11}$ |
| $\frac{1}{99}$ | $\frac{1}{143}$ |

Required ratio $=13: 9$

S91. Ans.(a)
Sol.
Ratio of time taken in upstream to downstream =3:1
Speed in upstream to speed in downstream $=1 \mathrm{x}: 3 \mathrm{x}$
ATQ.
$\frac{1 x+3 x}{2}=8.5$
$x=4.25$
Speed of stream $=\frac{3 \cdot x-1 . x}{2}=1 x=4.25 \mathrm{~km} / \mathrm{h}$

## S92. Ans.(d)

Sol.
Let length of $\operatorname{train} \mathrm{X}$ to Y is 2 x meters \& 5 x meters respectively ATQ.
$\frac{2 x+5 x}{(54+36) \times \frac{5}{18}}=33.6$
$\frac{7 x}{25}=33.6$
$7 x=840$
Req. sum $=840$ meters

## S93. Ans.(a)

## Sol.

Let breadth of the rectangle be ' b ' cm
And length of the rectangle $=(b+8) \mathrm{cm}$
ATQ.
$2(b+b+8)=96$
$2 b=40$
$b=20$
Perimeter of the square $=\frac{450}{100} \times 28=126 \mathrm{~cm}$
Side of the square $=\frac{126}{4}=31.5 \mathrm{~cm}$

## S94. Ans.(d)

Sol.
Monthly income $=$ Rs. 25000
Monthly expenditure = Rs. 12000
Monthly saving $=$ Rs. 13000
New monthly income $=25000 \times \frac{120}{100}=$ Rs. 30000
New monthly saving $=13000 \times \frac{125}{100}=$ Rs. 16250
Monthly expenditure $=30000-16250=$ Rs. 13750
Req. $\%=\frac{13750-12000}{12000} \times 100=14.58 \% \approx 15 \%$

## S95. Ans.(e)

Sol.
Let the present age of P \& R be p years and r years respectively.
$p-2=r \ldots$...(i)
ATQ.
$\frac{p+5}{15+5}=\frac{r-3}{15-3}$
$\frac{p+5}{20}=\frac{p-2-3}{12} \quad($ From (i) $)$
$3 p+15=5 p-25$
$2 p=40$
$p=20$
Present age of $R=20-2=18$ years

S96. Ans.(b)
Sol.
In village A, Total population $=1200 \times \frac{30}{100}=360$
Total females $=80$
Total males $=360-80=280$
Similarly,

| Villages | Total <br> population | Total <br> males |
| :---: | :---: | :---: |
| A | 360 | 280 |
| B | 240 | 160 |
| C | 180 | 100 |
| D | 120 | 40 |
| E | 300 | 220 |

Total number of males in village $\mathrm{F}=40 \times \frac{200}{100}=80$
Total number of females in village $\mathrm{F}=\frac{100}{40} \times 80=200$
Total population in village $\mathrm{F}=200+80=280$

## S97. Ans.(a)

Sol.
In village $A$, Total population $=1200 \times \frac{30}{100}=360$
Total females $=80$
Total males $=360-80=280$
Similarly,

| Villages | Total <br> population | Total <br> males |
| :---: | :---: | :---: |
| $\mathbf{A}$ | 360 | 280 |
| B | 240 | 160 |
| C | 180 | 100 |
| D | 120 | 40 |
| E | 300 | 220 |

Required ratio $=(220+160): 360=19: 18$

## S98. Ans.(d)

Sol.
In village A, Total population $=1200 \times \frac{30}{100}=360$
Total females $=80$
Total males $=360-80=280$
Similarly,

| Villages | Total <br> population | Total <br> males |
| :---: | :---: | :---: |
| A | 360 | 280 |
| B | 240 | 160 |
| C | 180 | 100 |
| D | 120 | 40 |
| E | 300 | 220 |

Required $\%=\frac{280-80}{280} \times 100=71 \frac{3}{7} \%$

S99. Ans.(a)
Sol.
In village A, Total population $=1200 \times \frac{30}{100}=360$
Total females $=80$
Total males $=360-80=280$
Similarly,

| Villages | Total <br> population | Total <br> males |
| :---: | :---: | :---: |
| A | 360 | 280 |
| B | 240 | 160 |
| C | 180 | 100 |
| D | 120 | 40 |
| E | 300 | 220 |

Total population in village $X=\frac{180}{9} \times 14=280$
Total males in village $X=280 \times \frac{2}{7}=80$
Required difference $=(280-80)-160=40$
S100. Ans.(b)
Sol.
In village $A$, Total population $=1200 \times \frac{30}{100}=360$
Total females $=80$
Total males $=360-80=280$
Similarly,

| Villages | Total <br> population | Total <br> males |
| :---: | :---: | :---: |
| A | 360 | 280 |
| B | 240 | 160 |
| C | 180 | 100 |
| D | 120 | 40 |
| E | 300 | 220 |

Total illiterate males $=160 \times \frac{60}{100}=96$
Total illiterate females $=80 \times \frac{3}{8}=30$
Required sum $=30+96=126$


AO Prelims 50 Total Tests

