

## Read the following instructions carefully before you begin to attempt the questions

(1) This booklet contains 100 questions in all comprising the following three parts.

- Part-(I) : English Language
- Part-(II) : Quantitative Aptitude
- Part-(III) : Reasoning Aptitude
(30 Questions)
(35 Questions)
(35 Questions)
(2) All the questions are compulsory and carry equal marks.
(3) Before you start to attempt the questions, you must explore this booklet and ensure that it contains all the pages and find that no page is missing or replaced. If you find any flaw in this booklet, you must get it replaced immediately.
(4) Each question carries negative marking also as 0.25 mark will be deducted for each wrong answer.
(5) You will be supplied the Answer-sheet separately by the invigilator. You must complete the details of Name, Roll number, Test name/ld and name of the examination on the Answer-Sheet carefully before you actually start attempting the questions. You must also put your signature on the Answer-Sheet at the prescribed place. These instructions must be fully complied with, failing which, your Answer-Sheet will not be evaluated and you will be awarded 'ZERO' mark.
(6) Answer must be shown by completely blackening the corresponding circles on the Answer-Sheet against the relevant question number by pencil or Black/Blue ball pen only.
(7) A machine will read the coded information in the OMR Answer-Sheet. In case the information is incompletely/ different from the information given in the application form, the candidature of such candidate will be treated as cancelled.
(8) The Answer-Sheet must be handed over to the Invigilator before you leave the Examination Hall.
(9) Failure to comply with any of the above Instructions will make a candidate liable to such action/penalty as may be deemed fit.
(10) Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any question.
(11) Mobile phones and wireless communication device are completely banned in the examination halls/rooms. Candidates are advised not to keep mobile phones/any other wireless communication devices with them even switching it off, in their own interest. Failing to comply with this provision will be considered as using unfair means in the examination and action will be taken against them including cancellation of their candidature.
(12) No rough work is to be done on the Answer-Sheet.
(13) No candidate can leave the examination hall before completion of the exam.

NAME OF CANDIDATE $\qquad$
DATE : CENTRE CODE : $\qquad$
ROLL No $\qquad$

## English Language

Direction (01-05): In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If the sentence is free from error, select 'No Error'.

1. (A) The future of the Antarctic hangs
(B) in the balance and these cities have
(C) a key role to played in securing the
(D) future of this fragile continent.
(E) No error
2. (A) Seagrasses are often called
(B) foundation plants or ecosystem engineers
(C) because they modify there environments
(D) to create unique habitats.
(E) No error
3. (A) North Korea, which also has
(B) dozens of nuclear weapons,
(C) signed that treaty in 1985
(D) but withdraws in 2003.
(E) No error
4. (A) The show was both a fun,
(B) twisty mystery and also a specific piece
(C) of art put together by an artist
(D) with a singularly point of view.
(E) No error
5. (A) With this decision, nine judges
(B) made it possible for the country
(C) to institutionalize peace after
(D) 50 years of internally conflict.
(E) No error

Direction (6-7): In the question given below, a sentence is given with one blank, followed by five options, each having a word which may or may not fit in the blank. From the given options, choose the one that gives the correct word that fits in the blank.
6. During the $\qquad$ of the British empire, thousands of women from India and other parts of Asia were brought to London to look after young children.
(A) transit
(B) periodic
(C) churl
(D) heydey
(E) lexicon
7. Business practices connected to the idea of a circular economy have gained in recent years.
(A) accumulation
(B) traction
(C) affectation
(D) insinuation
(E) assimilation

Direction (08-11): In the question below, a sentence is given with four words highlighted in bold. One of these four words may either be wrongly spelt or inappropriate in the context of the sentence. Find out the word, which is wrongly spelt or inappropriate, if any. If all the words are correctly spelled and appropriate in the context of the sentence, mark (E) as your answer.
8. Colombia, a middle-income South American nation, may simply lack the institutional capacity necessary to fulfill its own landmark agriment.
(A) lack
(B) capacity
(C) fulfil
(D) agriment
(E) All are correct
9. Computers increasingly become principal actors in leveraging data to formulate questions, which requires radical new ways of reasoning.
(A) increasingly
(B) leveraging
(C) formulate
(D) radical
(E) All are correct
10. Looking like cartoon caricatures of Arctic birds, puffins flew alongside the boat, a prelude to the great seabird colonies on the clif.
(A) caricatures
(B) prelude
(C) colonies
(D) clif
(E) All are correct
11. Lawsuits over cryptocurrency losses are mounted across the country, as investing in digital tokens and coins has become mainstream and the money at stake has increased significantly.
(A) mounted
(B) investing
(C) mainstream
(D) stake
(E) All are correct

Direction (12-14): In the following question, a sentence is given with a phrase or idiom highlighted in bold. Select the option given below that can replace the highlighted phrase and mark that as your answer.
12. The car broke up on my way to the office but luckily the garage was nearby.
(A) broke through
(B) broke off
(C) broke down
(D) broke into
(E) No improvement

When I need some motivation, I always fall back on Toni Morrison's books.
(A) fall through
(B) fall short off
(C) fall down from
(D) No improvement
(E) fall off
14. We should all work with our collective goal of a cleaner and greener earth.
(A) work towards
(B) work through
(C) work out
(D) work away
(E) No improvement
15. In the question below, four words are given, two of which may or may not share a synonymous or antonymous relationship. From the given options, choose the one that provides the correct pair of synonyms or antonyms.

1. renovate
2. Venerate
3. Adulate
4. Adulterate
(A) 1 and 2
(B) 1 and 4
(C) 2 and 3
(D) 2 and 4
(E) All are synonyms

Direction (16-20): In the question given below, a set of sentences is given, which when properly sequenced, form a coherent paragraph. Arrange the sentences in the correct sequence, and answer the questions that follow.
P. Fish is widely known as a healthy food, rich in protein and other nutrients, so how can this be?
Q. A combination of overfishing, pollution and environmental damage has led to significant losses in both quantities of fish (biomass) and the number of fish species (biodiversity) available.
R. People in Bangladesh are now eating $30 \%$ more fish than they did 20 years ago, but they are getting a smaller amount of important nutrients from it, a new study shows.
S. In Bangladesh as in many regions in the world, naturally harvested fish, which is known as capture fisheries, are faltering.
T. Well, it comes down to the types of fish available for people to eat.
16. Which of the following would be the FIRST statement after rearrangement?
(A) P
(B) Q
(C) $R$
(D) S
(E) T
17. Which of the following would be the SECOND statement after rearrangement?
(A) P
(B) R
(C) $Q$
(D) S
(E) T
18. Which of the following would be the THIRD statement after rearrangement?
(A) Q
(B) P
(C) $R$
(D) T
(E) S
19. Which of the following would be the FOURTH statement after rearrangement?
(A) Q
(B) R
(C) P
(D) S
(E) T
20. Which of the following would be the FIFTH (LAST) statement after rearrangement?
(A) P
(B) Q
(C) $R$
(D) S
(E) $T$

Direction (21-25): In the following passage, some of the words have been left out and replaced by a blank represented by a letter. First read the passage and try to understand what it is about. Then fill in the blanks as per the questions given.

Diet soda drinkers, beware. Recent epidemiological studies have confirmed that the sweeteners used in diet sodas and other lite drinks increase the risk of type 2 diabetes. Often asymptomatic, type 2 diabetes is the most common form of diabetes, and is most often found among people who are overweight and __(21)__. Even though the quantity of artificial sweeteners in our diet has increased ___(22)__ in recent years as industrial manufacturers add them with growing (23) $\qquad$ to not just drinks but also cereals, biscuits, cakes, low-calorie yogurts and even certain medicines, reliable and __(24)__ data on their health impacts are rare. Such products are marketed as low-calorie alternatives that are therefore healthy. This perception $\qquad$ (25) $\qquad$ consumers to overuse sweeteners to avoid putting on weight. But, even in moderation, these additives can have negative effects on health. Today, sweeteners are increasingly controversial, and suspected of contributing to weight gain and being carcinogenic.
21.
(A) conventional
(B) sedentary
(C) solemn
(D) commensurate
(E) infamous
22. (A) conveniently
(B) sensibly
(C) conclusively
(D) massively
(E) luxuriously
23. (A) annihilation
(B) loyalty
(C) misnomer
(D) abandon
(E) confluence
24.
(A) precise
(B) gullible
(C) endearing
(D) extravagant
(E) overwhelming
25.
(A) surveils
(B) encourages
(C) predominates
(E) postulates
(D) inculcates

Direction (26-30): Read the following passage carefully and answer the questions that follow.

The mighty Himalayas act as the water tower of the South and Southeast Asian region. More than ten major rivers originate from the Tibetan Autonomous Region of China. And for the past decade, India and China, the two biggest geopolitical forces in the region, have engaged in a hydro-power race to harness this power. The waters that flow from the Himalayas know no borders. These rivers include the Brahmaputra, the Yangtze, the Mekong, the Sutlej, the Indus, the Salween, and the Huang Ho, which is also known as the Yellow River.
The Brahmaputra has a total length of 2,880 kilometres with a total drainage area of $5,73,394$ square kilometres. It is shared by China, India, Bhutan and Bangladesh. The river is known as the Yarlung Tsangpo in China, the Siang and the Brahmaputra in India and the Jamuna in Bangladesh. The Brahmaputra is the lifeline for communities living along its banks. The path of the Brahmaputra has sculpted the natural and human landscape of two north-eastern Indian states, Arunachal Pradesh and Assam. The river nourishes the young and fragile ecology of the Eastern Himalayas and the rich diversity of people and languages in this frontier space.
In recent years, the central governments of India and China have decided to tame the Brahmaputra, by building hydropower dams. Among them are the Lower Subansiri Project and the Dibang Valley project. As many as 168 memoranda of understanding have been signed between the Arunachal Pradesh state government and private and public dam-building companies to build medium and large dams in the state.
The legendary 20th century Assamese singer and composer, Bhupen Hazarika, mentions the Brahmaputra river in one of his popular compositions Bistirno Parore. He was influenced by the American standard, Ol' Man River (Show Boat, 1936), sung by African-American artist Paul Leroy Robeson, who was involved in the American civil rights movement. In his song, Hazarika asks the mighty Brahmaputra the reason for its quiet and unbounded flow, amid the suffering and pain of the people living by its banks. Today, the song can be reinterpreted to reflect the great uncertainty and fear among the communities living in the Brahmaputra river basin, exhorting the river to answer back and not keep quietly flowing amid all the dam building.
In upstream Arunachal Pradesh, and downstream communities of Assam and Bangladesh, concern is widespread about plans to construct mega-dams by both China and India and water diversion infrastructure projects by China along the river system. The size and scale of proposed infrastructure developments on this river, and the wider region, is unprecedented in the development history of northeast India. Indigenous communities of the region are worried they will face tremendous social and economic upheaval if the projects go ahead.

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This may not go down well with Beijing. India's policy of pursuing hydropower development in Arunachal Pradesh could have a negative impact on bilateral relations. New Delhi is essentially using this critical biodiversity hotspot to legitimise its sovereignty claims over Arunachal Pradesh by building mega hydroelectricity projects.
The Indian government's hydropower obsession has led to great fear among local communities in Arunachal Pradesh and Assam, for the first time significantly overriding existing concerns about upstream dam building projects by China. Recently, local people have taken to the streets in large-scale protests to voice their dissatisfaction.
The way forward must be to highlight the Himalayan environment as an area of cooperation between all the South and Southeast Asian countries that share the transborder water resources in the region. The only way to understand the Brahmaputra better is through a mix of modern research methods and traditional community-based knowledge systems. This approach should be central to any dialogue between and within the countries served by the river. An emphasis on multilateral cooperation will dispel the prevailing sense of conflict on this crucial river. The Brahmaputra, meanwhile, meanders along ceaselessly, shifting between its moods of ferocious rampage and eternal quiet flow.
26. Which of the following statements about Bhupen Hazarika's song on the Brahmaputra is TRUE?
(A) His song was influenced by an American counterpart.
(B) His song received international acclaim.
(C) The song was the first one on the river Brahmaputra.
(D) The song has been interpreted to reflect the contribution of the river to the communities.
(E) All are true
27. Why is there widespread concern about Indo-Chinese plans to construct mega-dams on the Brahmaputra?
(A) It will cause a lot of floods.
(B) It will disrupt the lives of indigenous communities.
(C) It will be too costly for India to afford.
(D) It will ruin relations with neighbouring countries like Pakistan.
(E) It will be detrimental for the environment.
28. Which of the following statements about the Brahmaputra river is FALSE?
(A) It is known as Jamuna in Bangladesh.
(B) Its waters are shared by China, India, Bhutan and Bangladesh.
(C) It has played a role in shaping the natural and human landscape of Arunachal Pradesh and Assam.
(D) The Brahmaputra is the longest river in the world.
(E) The Brahmaputra originates from the Himalayas.
29. What has been the response of local communities of Arunachal Pradesh and Assam to the government's hydropower obsession?
(A) A number of them who hold public sector jobs have gone on strike.
(B) Many of them have taken to the streets to protest.
(C) They have written petitions to the government.
(D) They support the government's efforts in this sector.
(E) They are content as the government has given them adequate compensation for the impact of the dam construction.
30. Which of the following words is closest in meaning to the word 'dispel' as used in the passage?
(A) banish
(B) allure
(C) hinder
(D) incite
(E) mediate

## Quantitative Aptitude

31. Petra started a business by investing ₹ 3,300 . Few months later, Peter joined him by investing ₹ 4,400 such that out of the total annual profit of ₹ 8,000 Petra received $₹ 4,500$. After how many months did Peter joined the business?
(A) 3 months
(B) 7 months
(C) 6 months
(D) 5 months
(E) 4 months
32. On an average, Rohan spends ₹900 per month for first four months of a given year and ₹ 1500 per month for the next eight months of the same year. If his annual savings of that year is ₹ 6000 then find his average monthly income.
(A) ₹ 1400
(B) ₹ 1600
(C) ₹2200
(D) ₹ 1800
(E) ₹2000
33. Ratio of present ages of ' $A$ ' and ' $B$ ' is 4:5, respectively. If 14 years hence from now, the sum of their ages will be 100 years, then find the present age of ' $A$ '.
(A) 40 years
(B) 44 years
(C) 36 years
(D) 32 years
(E) 28 years
34. In March, Sourav spent $72 \%$ of his income and saved the rest which is equal to Rs. 14000. In April, if he increased his savings by $20 \%$, then how much percentage of his income did he spend in April? (Incomes in March and April are equal)
(A) $68.5 \%$
(B) $72.5 \%$
(C) $66.4 \%$
(D) $58.6 \%$
(E) $74.2 \%$
35. The sum of cost prices of 2 belts and 1 purse is $₹ 1960$ and sum of cost prices of 5 belts and 2 purses is ₹4520. What will be the profit (in ₹) earned on selling 1 belt at a profit of $15 \%$ ?
(A) 115
(B) 90
(C) 100
(D) 80
(E) 125
36. A seller marked an item $80 \%$ above its cost price. If he sold that article after giving a discount of $22 \frac{2}{9} \%$ then find the profit/loss percentage incurred to him?
(A) $43 \frac{1}{3} \%$
(B) $66 \frac{2}{3} \%$
(C) $60 \%$
(D) $40 \%$
(E) $83 \frac{1}{3} \%$
37. A man invested $₹ 1,200$ at simple interest of $20 \%$ p.a. and ₹ 800 at simple interest of $25 \%$ p.a., then find the total amount received by him after 4 years.
(A) ₹ 2,760
(B) ₹ 3,760
(C) ₹ 1,760
(D) ₹ 2,250
(E) ₹ 3,250
38. A 480 litres mixture (milk + water) contains milk and water in the ratio of $5: 7$, respectively. If ' $y$ ' litres of milk is added to the given mixture, then the ratio of quantity of milk to that of water in the resultant mixture becomes $6: 7$. Find the value of ' $y$ '?
(A) 60
(B) 50
(C) 40
(D) 30

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## (E) 35

39. ' P ' alone can complete a work in 21 days while ' P ' and ' $Q$ ' together can complete the same work in 10 days. Find the part of total work completed by ' $Q$ ' in 15 days.
(A) $(9 / 11)$
(B) $(11 / 14)$
(C) $(9 / 14)$
(D) (7/9)
(E) $(4 / 5)$
40. Total time taken by a boat to travel from point ' A ' to point ' $B$ ' and then from point ' $B$ ' to point ' $A$ ', is 22.5 hours while the speed of boat in still water is $12 \mathrm{~km} / \mathrm{h}$ which is $200 \%$ more than speed of stream. Find the distance between point ' $A$ ' and ' $B$ '.
(A) 112 km
(B) 160 km
(C) 90 km
(D) 120 km
(E) 180 km
41. Perimeter of a square shaped plot is 120 metres and the area of a rectangular plot is $60 \%$ more than that of the square shaped plot. Find the area (in $\mathrm{m}^{2}$ ) of a rectangular plot?
(A) 1400
(B) 1440
(C) 1240
(D) 1600
(E) 1100

Direction (42-43): What approximate value will come in place of the question mark (?) in the following question? (Note: You are not expected to calculate the exact value.)
42. $19.98 \%$ of $999.998+\sqrt{ } 224.98=$ ?
(A) 170
(B) 185
(C) 245
(D) 215
(E) 200
43. $(14.01)^{2}+(5.98)^{2}=?-19.98$
(A) 52
(B) 152
(C) 352
(D) 252
(E) 292

Direction (44-50): What will come in the place of question mark (?) in the given expression?
44. $(1 / 2) \div(3 / 2) \div(4 / 12) \times(9 / 6)=(? / 2)$
(A) 5
(B) 6
(C) 2
(D) 3
(E) 4
45. $240 \div 15+112 \div 8=$ ?
(A) 35
(B) 30
(C) 42
(D) 50
(E) 40
46. $(380 \div 20-7) \times ?=420$
(A) 30
(B) 45
(C) 35
(D) 29
(E) 31
47. $(1 / 5)+(2 / 15)+(5 / 7)=22 \times$ ?
(A) $(1 / 21)$
(B) $(1 / 19)$
(C) $(1 / 23)$
(D) $(1 / 17)$
(E) $(1 / 18)$
48. $955-25 \%$ of $176+33266=$ ?
(A) 34157
(B) 34189
(C) 34158
(D) 34177
(E) None of these
49. $12 \%$ of $20 \%$ of $500+120=? \times 4$
(A) 25
(B) 45
(C) 60
(D) 33
(E) 48
50. $(18 \times 19)+26^{2}=? \times 2$
(A) 309
(B) 409
(C) 509
(D) 519
(E) 319

Direction (51-53): The following numbers form a series. Find the odd one out.
51. 1086, 1093, 1114, 1149, 1197, 1261
(A) 1086
(B) 1093
(C) 1114
(D) 1197
(E) 1149
52. 120, 116, 104, 84, 52, 20
(A) 116
(B) 52
(C) 20
(D) 84
(E) 104
53. $96,144,216,320,486,729$
(A) 144
(B) 486
(C) 216
(D) 320
(E) 729

Direction (54-55): In the questions, two equations I and II are given. You have to solve both the equations to establish thecorrect relation between x and y and choose the correct option.
54.
I. $x^{2}-12 x=-32$
II. $y^{2}+45=18 y$
(A) $x>y$
(B) $x<y$

55.
I. $4 x^{2}+24 x+35=0$
II. $8 y^{2}+26 y+15=0$
(A) $x>y$
(B) $x<y$
(C) $x=y$ or the relationship cannot be established
(D) $x \leq y$
(E) $x \geq y$

Direction (56-60): Answer the questions based on the information given below.

A survey was conducted among certain number of people about the type of hair product (Hair cream or Hair gel) they like. 27 persons like neither hair cream nor hair gel. 110 persons like hair gel, out of which 45 persons also like hair cream. The number of people who like only hair cream was 23 more than the number of people who like only hair gel.
56. What is the total number of people who were surveyed?
(A) 180
(B) 200
(C) 240
(D) 225
(E) 198
57. The ratio of the number of males to the number of females to the number of persons who like only hair cream is $3: 5$. What is the number of women who like only hair cream?
(A) 60
(B) 55
(C) 70
(D) 50
(E) 33
58. How many people like exactly one hair product?
(A) 184
(B) 155
(C) 160
(D) 153
(E) 175
59. The number of people who like neither hair cream nor hair gel is how much percent of the number of people who like both hair cream and hair gel?

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(A) 60\%
(B) $40 \%$
(C) $55 \%$
(D) $70 \%$
(E) $65 \%$
60. What is the difference between the number of people who like hair gel and the number of people who like only hair cream?
(A) 30
(B) 22
(C) 27
(D) 18
(E) 25

Direction (61-65): Answer the questions based on the information given below.

Given line graph shows the total number of flowers (lotus + rose + lily) sold by five different shops.


The bar graph given below shows the number of lotuses and roses sold by the given five shops.

61. If ratio between number of lotuses and roses sold by shop ' $F$ ' is 2:3, respectively and average number of lotuses and roses sold by it is 1250, then find the difference between number of roses by shop ' $F$ ' and shop ' A '?
(A) 200
(B) 250
(C) 300
(D) 350
(E) 400
62. Find the difference between number of lilies sold by shops ' $A$ ' and ' $B$ '.
(A) 100
(B) 200
(C) 180
(D) 250
(E) None of these
63. Ratio of number of lotuses, roses and lilies, respectively sold by shop ' $C$ ' is:
(A) 15:12:23
(B) $8: 5: 5$
(C) $25: 23: 22$
(D) $28: 21: 11$
(E) 6:3:1
64. Total number of flowers sold by shop ' $D$ ' is how much percent of total number of lotuses sold by shops ' $A$ ',
' B ', and ' C ' together?
(A) $25 \%$
(B) $40 \%$
(C) $60 \%$
(D) $75 \%$
(E) $50 \%$
65. If number of lilies sold by shop ' $Q$ ' is $61.6 \%$ more than that by shop ' $C$ ' then find the number of lilies sold by shop ' Q '.
(A) 4020
(B) 4400
(C) 4040
(D) 4004
(E) 4440

## Reasoning Aptitude

Direction (66-70): Answer the questions based on the information given below.

Nine boxes (N1, N2, N3, N4, N5, N6, N7, N8, and N9) are placed above one another such that the bottommost box is numbered as 1 and the topmost box is numbered as 9 but not necessarily in the same order.
Both N6 and N2 are even numbered box. Both N8 and N7 are prime numbered box. Two boxes are placed between N1 and N3. N3 is an odd numbered box placed above the $6^{\text {th }}$ box. N9 is placed two boxes above N5. N6 is placed above N9. N7 is placed immediately above N8.
66. Four of the following five are alike in a certain way based on a group, which among the following does not belong to that group?
(A) Box N9
(B) BoxN 5
(C) Box N7
(E) Box N8
67.
(A) Three
(B) Five
(C) One
(D) None
(E) None of the above
68.

Box N5 is placed $\qquad$ boxes above Box N7.
(A) One
(B) Two
(C) Three
(D) Four
(E) Cannot be determined
69. Which of the following statements is/are definitely correct?
(A) Box N6 is $8^{\text {th }}$ box
(B) One box is placed between N3 and N6
(C) Box N2 is $6^{\text {th }}$ box
(D) Both (A) and (B)
(E) Both (B) and (C)
70.
$\overline{(A)}$ Box N7
(B) Box N2
(C) Box N5
(D) Box N6
(E) Cannot be determined

Direction (71-75): Answer the questions based on the information given below:

Eight persons A, B, C, D, E, F, G and H sit in a horizontal row facing towards the north direction.
Two persons sit between $G$ and $F$, who is third from one of the extreme ends. G sits second to the right of A. D doesn't sit adjacent to $A$ and $F$. $E$ sits second to the left of $D$. Neither $C$ nor $H$ sits adjacent to F. At most two persons sit between D and C .
71. How many persons sit between $F$ and $E$ ?
(A) Two
(B) Three
(C) Four
(D) One
(E) Cannot be determined
72. Who sits second from the right end of the row?
(A) E
(B) D
(C) F
(D) B
(E) None of the above
73. Who sits immediately left of the $C$ ?
(A) D
(B) A
(C) B
(D) H
(E) None of the above
74. Find the odd one out.
(A) B - A
(B) F - E
(C) $\mathrm{A}-\mathrm{G}$
(D) $\mathrm{F}-\mathrm{H}$
(E) $G-C$
75. What is the position of $A$ with respect to $F$ ?
(A) immediate left
(B) second to the left
(C) third to the left
(D) immediate right
(E) None of the above

Direction (76-80): Answer the following question on the basis ofthe information given below.

Seven people Ram, Rohit, Radhika, Anupam, Suraj, Shaurya and Shreya, were born on $1^{\text {st }}$ of different months from June to December of the year 2000. They like different fruits among Apple, Grapes, Guava, Banana, Mango, Litchi and Kiwi.
Ram likes Apple and was born in either September or November. Suraj was born in July and likes Mango. Two people were born between Suraj and the one, who likes Grapes. Rohit was born after the one, who likes Grapes. Shreya was born two months before Rohit. Shaurya likes Litchi and was not born in a month having only 30 days. Radhika does not like Guava. The person, who likes Banana, was born immediately before the one, who likes Kiwi. Person, who likes Guava, was born before Suraj.
76. Anupam was born in $\qquad$ and likes
(A) November, Grapes
(B) August, Kiwi
(C) December, Banana
(D) June, Guava
(E) None of the above
77. How many people were born before the one, who likes Grapes?
(A) Two
(B) Three
(C) Four
(D) Five
(E) None
78. likes kiwi and was born in $\qquad$
.
(A) Anupam, July
(B) Radhika, November
(C) Rohit, December
(D) Shreya, August
(E) None of the above
79. How many people were born between Anupam and Radhika?
(A) Five
(B) Four
(C) Three
(D) Two
(E) None
80. Which of the following statement is incorrect?
(A) Anupam was born in June and likes Guava.
(B) Shaurya was born in October.
(C) Three people were born between Shaurya and Rohit.
(D) Rohit is the youngest.
(E) All the statements are incorrect.

Direction (81-85): Answer the questions based on the information given below.

Six persons $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}$, and F are sitting around the corner of a hexagonal-shaped table such that some are facing towards the centre and some are facing away from the centre.
$C$ sits second to the left of $A$. $B$ sits immediate right of E , who faces opposite direction to that of F . Two persons sit between C and E . A doesn't sit adjacent to D . B and C face same direction but opposite to that of $E$. $C$ doesn't sit immediate left of $D$. F doesn't face towards the centre.
81. Who sits opposite to $D$ ?
(A) C
(B) B
(C) A
(D) E
(E) None of the above
82. How many persons are sitting between $A$ and $B$, when counted from the left of $B$ ?
(A) two
(B) three
(C) one
(D) four
(E) no one
83. Who sits second to the right of $E$ ?
(A) F
(B) D
(C) $B$
(D) A
(E) None of the above
84. What is the position of $C$ with respect to $D$ ?
(A) immediate left
(B) fourth to the left
(C) third to the right
(D) fifth to the left
(E) None of the above
85. If all the persons are arranged in alphabetical order starting from position of A in the clockwise direction, then how many persons remain in the same place (except A)?
(A) two
(B) one
(C) three
(D) five
(E) None of the above

Direction (86-87): Answer the questions based on the information given below:

In a certain language,
I. 'help order live beyond' is coded as 'rde, ynd, vlp, phk'.
II. 'order beyond hold control' is coded as 'dhl, rde, ort, ynd'
III. 'beyond control level phone' is coded as 'npe, ort, evl, ynd'
IV. 'live hold level dream' is coded as 'amd, vlp, dhl, evl'
86.
(A) control
(B) beyond
(C) hold
(D) level
(E) None of the above
87. Which of the following is the code for "phone" in the given language?
(A) amd
(B) evl
(C) npe
(D) vip
(E) Cannot be determined

Direction (88-91): Study the following arrangement of numbers and alphabet carefully and answer the following question.

## AB4I5D6G87E99Q7I23Y52U7IN25

88. How many alphabets are immediately followed by an odd number?
(A) Two
(B) Three
(C) Four
(D) Five
(E) None of the above
89. How many numbers are immediately followed by a vowel?
(A) Three
(B) Four
(C) Five
(D) More than five
(E) None of the above
90. What is the sum of all the numbers, which are immediately preceded by a consonant?
(A) 26
(B) 30
(C) 32
(D) 28
(E) None of the above
91. What is the seventh element to the right of $8^{\text {th }}$ number from the right end?
(A) $U$
(B) $Y$
(C) 2
(D) 7
(E) None of the above
92. In the question below there are four statements followed by four conclusions I, II, III and IV. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.
Statement: All Sparrow are Bird.
All Hen are Bird.
No Sparrow is Hawk.
All Hen are Pet.
Conclusion: I. Some Bird are Pet.
II. No Hawk is Pet.
III. Some Bird can be Hawk.
IV. All Bird can be Hawk.
(A) Only conclusion II and III follow.
(B) Only conclusion I and II follow.
(C) Only conclusion I and III follow.
(D) Only conclusion II and IV follow.
(E) None of the above.
93. In the question below there are three statements followed by two conclusions I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.
Statements: No Junk is Healthy.
Some Healthy is Better.
Only a few Better is Good.
Conclusions: I. Some Healthy can be Good.
II. Some Better is not Junk.
(A) Only conclusion I follows
(B) Both conclusion I and conclusion II follow
(C) Only conclusion II follows
(D) Neither conclusion I nor conclusion II follows
(E) Either conclusion I or conclusion II follows.
94. How many meaningful four-letter words can be formed using the $2^{\text {nd }}, 6^{\text {th }}, 7^{\text {th }}, 12^{\text {th }}$, and $13^{\text {th }}$ letter from the left end of the word 'FACTORISATION'?
(A) More than three
(B) Three
(C) Two
(D) One
(E) None
95. If it is possible to make a meaningful English word starting from the letter ' $P$ ' from the $1^{\text {st }}, 2^{\text {nd }}, 5^{\text {th }}$, and $7^{\text {th }}$ letters of the word 'POWERFULLY', from the left end, then what will be the $2^{\text {nd }}$ letter of the word so formed from the left end? If no such word can be formed, then the mark the answer as ' $X$ ', and if more than one word can be formed then mark theanswer as ' $Y$ '.
(A) O
(B) $Y$
(C) X
(D) U
(E) $R$
96. What is the suitable sign that should be placed so that $A>D$ is true and $F>C$ is true in the following relation?
A $>\mathrm{B} \geq \mathrm{C}$ ? $\mathrm{D}=\mathrm{E}<\mathrm{F}$
(A) $>$
(B) $=$
(C) $\leq$
(D) $\geq$
(E) None of the above
97. Which of the following symbols should be placed in the blank spaces respectively (in the same order from left to right) in order to complete the given expression in such a manner that ' $T \geq V$ ' definitely holds true?
T__U__W_V
$(\overline{\mathrm{A}})>,=, \geq$
(B) $\geq,=\geq$
(C) $\geq,=, \leq$
(D) $\leq,=, \geq$
(E) None of the above

Direction (98-99): Answer the questions based on the information given below:

Eight cars $\mathrm{C} 1, \mathrm{C} 2, \mathrm{C} 3, \mathrm{C} 4, \mathrm{C} 5, \mathrm{C} 6, \mathrm{C} 7$ and C 8 are standing in a parking lot such that C2 is 10 m west of C7, which is 20 m south of C4. C3 is 5 m west of C4. C 8 is 25 m north of C3. C6 is 30 m east of C8. C5 is 35 m south of C6. C1 is 15 m west of C5.
98. What is the direction of Car C8 with respect to Car C1?
(A) North
(B) North-east
(C) North-west
(D) South-east
(E) South-west
99. Find the odd one out.
(A) C 1 - C 6
(B) $\mathrm{C} 2-\mathrm{C} 5$
(C) $\mathrm{C} 7-\mathrm{C} 1$
(D) $\mathrm{C} 3-\mathrm{C} 2$
(E) $\mathrm{C} 4-\mathrm{C} 6$
100. In the question, assuming the given statements to be true, find which of the conclusion (s) among given three conclusions is/are definitely true and then give your answer accordingly.
Statements: $Q=C>R \geq P \geq D ; M \geq Z>P=S$
Conclusions: I. S > D II. M $\geq$ C
III. D < Z
(A) Only Conclusion I is true
(B) Only Conclusions I and II are true
(C) Only Conclusion III is true
(D) Only Conclusion II is true
(E) Only Conclusions I and III are true

## English Lanquage

1. Answer: (C)

In C, replace the second form verb PLAYED with PLAY as the TO + VERB infinitive construction will take the base form of the verb. Thus, C is the right answer.
2. Answer: (C)

In C, replace the adverb THERE with the possessive pronoun THEIR to modify the noun ENVIRONMENTS. So, C is the correct answer.
3. Answer: (D)

In D, replace the present tense form verb WITHDRAWS with the second form WITHDREW as the sentence talks of a past event that took place in 2003. Thus, D is the right answer.
4. Answer: (D)

In D, replace the adverb SINGULARLY with the adjective SINGULAR as it is being used to modify the noun POINT. Thus, (d) is the right answer.
5. Answer: (D)

In D, replace the adverb INTERNALLY with the adjective INTERNAL as it is being used to modify the noun CONFLICT. Thus, $D$ is the right answer.
6. Answer: (D)

We need a noun to be modified by the definite article THE. HEYDEY (prime) will fit here as the sentence tells us how, during the peak of the British empire, thousands of Indian women were brought to London to take care of children. Thus, (d) is the right answer. Transit - transport. Periodic (adjective) - occurring at regular intervals. Churl - a rude person. Lexicon vocabulary.
7. Answer: (B)

We need a noun to form the object of the verb GAINED. TRACTION (act of drawing attention) will fit here contextually as the sentence talks about business practices related to circular economy drawing attention in recent years.Thus, (b) is the right answer.
Accumulation/ assimilation - act of gathering or collecting. Affectation - unnatural behaviour. Insinuation - an unpleasant suggestion.
8. Answer: (D)

It should be agreement in place of agriment. Thus, D is the right answer.
9. Answer: (D)

The sentence seeks to convey that computers become principal (main) actors in leveraging (taking something to gain advantage) data to formulate (prepare) questions which require completely new ways of reasoning. RADICAL (adjective) will be inappropriate here and should be replaced with the adverb RADICALLY (extremely) as we need an adverb to modify the adjective NEW. Thus, (d) is the right answer.
10. Answer: (D)

It should be cliff in place of clif. Thus, $D$ is the right answer.
11. Answer: (A)

Replace second form verb MOUNTED with present continuous form verb MOUNTING as we need a verb in present continuous form to fit in ARE + VERB present continuous tense construction. The sentence seeks to convey that lawsuits over losses incurred in cryptocurrency are mounting (increasing) as investing (putting money into) has become mainstream (popular) and the money at stake (at risk) has greatly increased.

## 12. Answer: (C)

(c) is the right answer. We need a phrase that means to stop working. BROKE DOWN will be apt here as the sentence talks about the car stopping to work.

BROKE THROUGH- to pass through a barrier BROKE UP- to break into pieces
BROKE DOWN- (of a machine) to stop working BROKE OFF- to detach from a whole
13. Answer: (D)
(d) is the right answer. We need a phrase that means to rely on. FALL BACK ON will be apt here as the sentence talks about the speaker relying on Toni Morrison's books for motivation.
FALLS OFF- to decrease; to separate from a whole FALLS THROUGH- to fail or be cancelled
FALLS DOWN FROM- to fall from a particular place FALLS SHORT OFF- something is less in comparison to something else.
14. Answer: (A)
(a) is the right answer. We need a phrase that means to work to achieve a particular objective. WORK TOWARDS will be apt here as the sentences talks about working to achieve a common goal of cleaner and greener earth.
WORK TOWARDS- to work to achieve a particular objective
WORK THROUGH- to deal with a situation
WORK OUT- to exercise
WORK AWAY is contextually inapt.
15. Answer: (C)

ADULATE means to respect or admire deeply. VENERATE is its synonym. Thus, $C$ is the right answer.
Renovate - revamp; change the look of something. Adulterate - render something poorer in quality by adding something else.

## Direction (16-20):

The correct order of statements in the rearranged paragraph is RPTSQ. $R$ begins the passage by introducing the main idea that the passage revolves around - people in Bangladesh are consuming more fish that they used to do, but they are not getting sufficient nutrition from it. $P$ proceeds by posing the question why this can be the case even when fish is a nutritious and healthy food. T answers this question the amount nutrition obtained from consuming fish depends on the type of fish consumed. SQ concludes the para as a pair: S tells us how naturally harvested fish, which is very nutritious, is declining in Bangladesh. Q follows by telling us how overfishing, pollution and environmental damage has caused losses in the quality of fish.
16. Answer: (C)
17. Answer: (A)
18. Answer: (D)
19. Answer: (D)
20. Answer: (B)
21. Answer: (B)

We need an adjective to modify the noun PEOPLE. SEDENTARY (having a lifestyle with little to no physical activity) will fit here as the sentence tells us how type 2 diabetes is found among people who are overweight and doing little physical activity. Thus, B is the right answer.
Conventional - traditional. Solemn - serious; grave. Commensurate.corresponding in size or degree; in proportion. Infamous - notorious.

## 22. Answer: (D)

We need an adverb to modify the verb INCREASED. MASSIVELY (significantly) will fit here as the sentence tells us how the quantity of artificial sweeteners in our diet has increased in a significant proportion. Thus, D is the right answer.
Conveniently - having a benefit or advantage. Sensibly - wisely; prudently. Conclusively unquestionably. Luxuriously - comfortably or elegantly.
23. Answer: (D)

We need a noun to be modified by the adjective GROWING. ABANDON (lack of restraint) will fit here as the sentence tells us how industrial manufacturers add artificial sweeteners to food items without practising any restraint on their part. Thus, E is the right answer.
Annihilation - complete destruction. Loyalty faithfulness. Misnomer - a wrong or inaccurate name or designation. Confluence - convergence.
24. Answer: (A)

We need an adjective to modify the noun DATA. PRECISE (accurate) will fit here as the sentence tells us how reliable and accurate data on the health impacts of artificial sweeteners is rare. Thus, A is the right answer.
Gullible - easily persuaded to believe something wrong. Endearing - lovable. Extravagant superfluous; wasteful. Overwhelming - very great or intense.
25. Answer: (B)

We need a singular verb to agree with the singular subject PERCEPTION. ENCOURAGES (persuades) will fit here as the sentence tells us how the perception convinces consumers to overuse sweeteners to avoid gaining weight.. Thus, B is the right answer.
Surveils - closely monitors or observes. Predominates - be the strongest or main element. Postulates suggests.
26. Answer: (A)

Refer to the lines: "The legendary 20th century Assamese singer and composer, Bhupen Hazarika, mentions the Brahmaputra river in one of his popular compositions Bistirno Parore. He was influenced by the American standard, Ol' Man River (Show Boat, 1936), sung by African-American artist Paul Leroy Robeson, who was involved in the American civil rights movement." These lines confirm A as true.
$B$ and $C$ are not mentioned in the passage.
Refer to the lines: "In his song, Hazarika asks the mighty Brahmaputra the reason for its quiet and unbounded flow, amid the suffering and pain of the people living by its banks. Today, the song can be reinterpreted to reflect the great uncertainty and fear among the communities living in the Brahmaputra river basin, exhorting the river to answer back and not keep quietly flowing amid all the dam building." These lines confirm $D$ as false.
27. Answer: (B)

Refer to the lines: "In upstream Arunachal Pradesh, and downstream communities of Assam and Bangladesh, concern is widespread about plans to construct mega-dams by both China and India and water diversion infrastructure projects by China along the river system. The size and scale of proposed infrastructure developments on this river, and the wider region, is unprecedented in the development history of northeast India. Indigenous communities of the region are worried they will face tremendous social and economic upheaval if the projects go ahead." Thus, $B$ is the right answer.
The other options are not mentioned in the passage.
28. Answer: (D)

A is the right as it is mentioned in the passage, while the other options are true.
Refer to the lines: "The Brahmaputra has a total length of 2,880 kilometres with a total drainage area of $5,73,394$ square kilometres. It is shared by China, India, Bhutan and Bangladesh. The river is known as the Yarlung Tsangpo in China, the Siang and the Brahmaputra in India and the Jamuna in Bangladesh. The Brahmaputra is the lifeline for communities living
along its banks. The path of the Brahmaputra has sculpted the natural and human landscape of two north-eastern Indian states, Arunachal Pradesh and Assam. The river nourishes the young and fragile ecology of the Eastern Himalayas and the rich diversity of people and languages in this frontier space." These lines confirm A, B and C as true.
Refer to the lines: "The waters that flow from the Himalayas know no borders. These rivers include the Brahmaputra, the Yangtze, the Mekong, the Sutlej, the Indus, the Salween, and the Huang Ho, which is also known as the Yellow River." These lines confirm E as true.
29. Answer: (B)

Refer to the lines: "The Indian government's hydropower obsession has led to great fear among local communities in Arunachal Pradesh and Assam, for the first time significantly overriding existing concerns about upstream dam building projects by China. Recently, local people have taken to the streets in large-scale protests to voice their dissatisfaction." These lines confirm B as the right answer.
The other options are not mentioned in the passage
30. Answer: (A)

DISPEL means to banish or make a feeling disappear. Thus, A is the right answer.
Allure - tempt; charm. Hinder - prevent. Incite provoke. Mediate - arbitrate.

## Quantitative Aptitude

31. Answer: (D)

Profit share of Peter $=8000-4500=₹ 3,500$
So, ratio of profit shares of Petra and Peter, respectively $=4500: 3500=9: 7$
Let the number of months for which Peter invested his sum $=$ ' $k$ ' months
Then, $(3300 \times 12) /(4400 \times k)=9 / 7$
Or, $39600 \times 7=4400 \mathrm{k} \times 9$
Or, $63=9 \mathrm{k}$
Or, $k=(63 / 9)=7$
So, number of months after which Peter joined the business $=12-7=5$ months.
32. Answer: (D)

Annual expenditure of Rohan $=(900 \times 4)+(1500 \times 8)$
$=3600+12000=₹ 15600$
Annual income of Rohan $=15600+6000=$ ₹ 21600
Required average $=21600 / 12=₹ 1800$
33. Answer: (D)

Let the present ages of ' $A$ ' an'd ' $B$ ' be ' $4 x$ ' years and ' $5 x$ ' years, respectively.
ATQ;
$4 \mathrm{x}+14+5 \mathrm{x}+14=100$
Or, $9 x=72$
Or, $x=8$
So the present age of ' $A$ ' $=4 \times 8=32$ years
34. Answer: (C)

Income of Sourav in March $=\{14000 /(1-0.72)\}$
= ₹50000
Savings of Sourav in April $=14000 \times(120 / 100)$
= ₹ 16800
So, expenses of Sourav in April $=50000-16800$ = ₹33200
Therefore, percentage of his income spent by Sourav in April $=(33200 / 50000) \times 100=66.4 \%$
35. Answer: (B)

Let the cost price of a belt = ₹' $\mathrm{A}^{\prime}$
Let he cost price of purse = ₹'B’
According to the question,
$2 A+1 B=1960 \ldots \ldots$ (1) $5 A+2 B=4520 \ldots \ldots$ (2) On
solving equation (1) and (2), we get
Cost price of 1 belt = ' A ' = ₹ 600

So, required profit earned $=600 \times(15 / 100)=₹ 90$
36. Answer: (D)

Let the cost price of the item $=$ ₹' $100 x^{\prime}$
Marked price of the item $=1.8 \times 100 \mathrm{x}=₹ 180 \mathrm{x}$
Discount given on the item $=(2 / 9) \times 180 \mathrm{x}=₹ 40 \mathrm{x}$
Selling price of the item $=180 x-40 x=₹ 140 x$
Required profit percentage $=\{(140 x-100 x) / 100 x\} \times$
$100=(40 x / 100 x) \times 100=0.4 \times 100=40 \%$
37. Answer: (B)

Total interest earned in 4 years $=\{(1200 \times 4 \times$ 20)/100 $\}+\{(800 \times 4 \times 25) / 100\}=960+800=₹ 1760$

So, total amount received after four years
$=2000+1760=₹ 3760$
38. Answer: (C)

Quantity of milk in the initial mixture
$=480 \times\{5 /(5+7)\}=480 \times(5 / 12)=200$ litres
Quantity of water in the initial mixture
$=480 \times\{7 /(5+7)\}=480 \times(7 / 12)=280$ litres
According to the question,
$\{(200+x) / 280\}=6 / 7$
Or, $1400+7 x=1680$
Or, $7 \mathrm{x}=1680-1400$
Or, $7 x=280$
Or, $x=40$
39. Answer: (B)

Let the total work $=210$ units \{L.C.M of 21 and 10\}
Then, efficiency of 'P' alone $=(210 / 21)=10$ units/day
Efficiency of ' $P$ ' and ' $Q$ ' together $=(210 / 10)$
= 21 units/day
So, efficiency of ' $Q$ ’ alone $=21-10=11$ units/days
So, work done by ' $Q$ ' alone in 15 days $=11 \times 15$
$=165$ units
So, fraction of the work completed $=(165 / 210)$
= (11/14)
40. Answer: (D)

Let the distance between point ' $A$ ' and ' $B$ ' be ' $d$ ' $k m$.
Speed of boat in still water $=12 \mathrm{~km} / \mathrm{h}$
Speed of stream $=(12 / 3)=4 \mathrm{~km} / \mathrm{h}$
ATQ;
$\{\mathrm{d} /(12-4)\}+\{\mathrm{d} /(12+4)\}=22.5$
$\mathrm{Or},(\mathrm{d} / 8)+(\mathrm{d} / 16)=22.5$
Or, $2 d+d=360$
Or, $d=120$
Therefore, the distance between point ' $A$ ' and ' $B$ ' is 120 km .
41. Answer: (B)

Perimeter of square shaped plot $=120$ metres
Let length of each side of the square shaped plot be 'a' metres.
So, $4 \mathrm{a}=120$
Or, $a=30$
Area of square shaped plot $=30 \times 30=900 \mathrm{~m}^{2}$
Area of rectangular plot $=1.60 \times 900=1440 \mathrm{~m}^{2}$
42. Answer: (D)
$19.98 \%$ of $999.998+\sqrt{ } 224.98=$ ?
$20 \%$ of $1000+\sqrt{ } 225 \sim$ ?
$200+15$ ~ ?
? ~ 215
43. Answer: (D)
$(14.01)^{2}+(5.98)^{2}=?-19.98$
$(14)^{2}+(6)^{2} \sim ?-20$
$196+36+20$ ~ ?
? ~ 252
44. Answer: (D)
$(1 / 2) \div(3 / 2) \div(4 / 12) \times(9 / 6)=(? / 2)$
$(1 / 2) \times(2 / 3) \times(12 / 4) \times(9 / 6)=(? / 2)$
$(3 / 2)=(? / 2)$
? = 3
45. Answer: (B)
$240 \div 15+112 \div 8=$ ?
? $=16+14$
? = 30
46. Answer: (C)
$(380 \div 20-7) \times ?=420$
$(19-7) \times ?=420$
$12 \times ?=420$
? $=(420 / 12)$
? = 35
47. Answer: (A)
$(1 / 5)+(2 / 15)+(5 / 7)=22 \times ?$
$\{(21+14+75) / 105\}=22 \times$ ?
$(22 / 21)=22 \times ?$
? = $1 / 21$
48. Answer: (D)
$955-25 \%$ of $176+33266=$ ?
$?=955-0.25 \times 176+33266$
? = $955-44+33266$
? = 34177
49. Answer: (D)
$12 \%$ of $20 \%$ of $500+120=? \times 4$
$12+120=? \times 4$
? $=132 \div 4$
? = 33
50. Answer: (C)
$(18 \times 19)+26^{2}=? \times 2$
$342+26^{2}=$ ? $\times 2$
$342+676=? \times 2$
$1018 \div 2=$ ?
? = 509
51. Answer: (D)
$1086+7 \times 1=1093$
$1093+7 \times 3=1114$
$1114+7 \times 5=1149$
$1149+7 \times 7=1198$
$1198+7 \times 9=1261$
Therefore, 1198 should come in place of 1197
Answer: (B)
$120-4 \times 1=116$
$116-4 \times 3=104$
$104-4 \times 5=84$
$84-4 \times 7=56$
$56-4 \times 9=20$
Therefore, 56 should come in place of 52 .
53. Answer: (D)
$96 \times(3 / 2)=144$
$144 \times(3 / 2)=216$
$216 \times(3 / 2)=324$
$324 \times(3 / 2)=486$
$486 \times(3 / 2)=729$
Therefore, 324 should come in place of 320
54. Answer: (C)

From I:
$x^{2}-12 x=-32$
Or, $x^{2}-12 x-32=0$
Or, $x^{2}-8 x-4 x-32=0$
Or, $x(x-8)-4(x-8)=0$
Or, $(x-4)(x-8)=0$
So, $x=4$ or $x=8$
From II:
$y^{2}+45=18 y$
Or, $\mathrm{y}^{2}-18 \mathrm{y}+45=0$
Or, $\mathrm{y}^{2}-15 \mathrm{y}-3 \mathrm{y}+45=0$
Or, $y(y-15)-3(y-15)=0$
Or, $(y-15)(y-3)=0$
So, $y=15$ or $y=3$

| $x$ | Relationship | $y$ |
| :--- | :--- | :--- |
| 4 | $>$ | 3 |
| 4 | $<$ | 15 |
| 8 | $>$ | 3 |
| 8 | $<$ | 15 |

So, the relationship cannot be established
55. Answer: (D)

From I:
$4 x^{2}+24 x+35=0$
$4 x^{2}+14 x+10 x+35=0$
$2 x(2 x+7)+5(2 x+7)=0$
3| Page
$(2 \mathrm{x}+5)(2 \mathrm{x}+7)=0$
$x=-5 / 2,-7 / 2$
From II:
$8 y^{2}+26 y+15=0$
$8 y^{2}+20 y+6 y+15=0$
$4 y(2 y+5)+3(2 y+5)=0$
$(4 y+3)(2 y+5)=0$
$y=-3 / 4,-5 / 2$

| $x$ | Relation | $y$ |
| :--- | :--- | :--- |
| $-5 / 2$ | $<$ | $-3 / 4$ |
| $-5 / 2$ | $=$ | $-5 / 2$ |
| $-7 / 2$ | $<$ | $-3 / 4$ |
| $-7 / 2$ | $<$ | $-5 / 2$ |

So, $x \leq y$
Direction (56-60):
Number of people who like only hair gel
$=110-45=65$
So, number of people who like only hair cream
$=65+23=88$
Number of people who like both hair gel and hair cream $=45$
Number of people who liked neither hair cream nor hair gel $=27$
So, total number of people surveyed $=65+88+45+$ $27=225$

56. Answer: (D)

Total number of people who were surveyed $=225$
57. Answer: (B)

Number of females who like only hair cream
$=88 \times(5 / 8)=55$
58. Answer: (D)

Required sum $=88+65=153$
59. Answer: (A)

Required percentage $=(27 / 45) \times 100=60 \%$
60. Answer: (B)

Required difference $=110-88=22$

## Direction (61-65):

Number of lilies sold by shop ' $A$ '
$=5000-1500-1200=2300$
Similarly,

| Shops | Total <br> number <br> of <br> flowers <br> sold | Number <br> of <br> lotuses <br> sold | Number <br> of roses <br> sold | Number <br> of lilies <br> sold |
| :--- | :--- | :--- | :--- | :--- |
| A | 5000 | 1500 | 1200 | 2300 |
| B | 7000 | 2500 | 2300 | 2200 |
| C | 9000 | 4000 | 2500 | 2500 |
| D | 6000 | 2800 | 2100 | 1100 |
| E | 10000 | 6000 | 3000 | 1000 |

61. Answer: (C)

Number of roses sold by shop ' $F$ ' $=(3 / 5) \times 2 \times 1250$
$=(3 / 5) \times 2500=1500$
Required difference $=1500-1200=300$
62. Answer: (A)

Required difference $=2300-2200=100$
63. Answer: (B)

Desired ratio $=4000: 2500: 2500=8: 5: 5$
64. Answer: (D)

Required percentage $=\{(6000) /(1500+2500+4000)\}$
$\times 100=(6000 / 8000) \times 100=0.75 \times 100=75 \%$
65. Answer: (C)

Number of lilies sold by shop 'Q'
$=1.616 \times 2500=4040$

## Reasoning Aptitude

Direction (66-70):
The final arrangement is as follows:

| Positions | Boxes |
| :--- | :--- |
| 9 | N3 |
| 8 | N6 |
| 7 | N9 |
| 6 | N1 |
| 5 | N5 |
| 4 | N2 |
| 3 | N |
| 2 | N 8 |
| 1 | N4 |

66. Answer: (D)

All are prime numbered box except for Box N6
67. Answer: (D)

No box is placed below Box N4.
68. Answer: (B)

Box N5 is placed two boxes above Box N7.
69. Answer: (A)

Box N6 is $8^{\text {th }}$ box is a correct statement.
70. Answer: (C)

Box N5 is placed immediately below Box N1.
Direction (71-75):
Final arrangement is:

\section*{| H | B | F | A | E | G | D | C |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |}

71. Answer: (D)

One person sits between F and E .
72. Answer: (B)

D sits second from the right end of the row.
73. Answer: (A)

D sits immediately left of the $C$.
74. Answer: (D)
'In the above options, first person sits $2^{\text {nd }}$ to the left of $2^{\text {nd }}$ person except in ' $\mathrm{F}-\mathrm{H}$ '.
75. Answer: (D)
$A$ is immediate right of $F$.
Direction (76-80):
The final arrangement is as follows:

| Month | Person | Fruits |
| :--- | :--- | :--- |
| June | Anupam | Guava |
| July | Suraj | Mango |
| August | Shaurya | Litchi |
| September | Ram | Apple |
| October | Shreya | Grapes |
| November | Radhika | Banana |
| December | Rohit | Kiwi |

76. Answer: (D)

Anupam was born in June and likes Guava.
77. Answer: (C)

Shreya likes Grapes.
So, four people were born before the one, who likes Grapes.
78. Answer: (C)

Rohit likes Kiwi and was born in December.
79. Answer: (B)

Four people were born between Anupam and Radhika.
80. Answer: (B)

Option (a): Correct (Anupam was born in June and likes Guava.)
Option (b): Incorrect (Shaurya was born in August.)
Option (c): Correct (Three people were born between Shaurya and Rohit.)
Option (d): Correct (Rohit is the youngest.)

## Direction (81-85):

The final arrangement is:

(in)
81. Answer: (C)

A sits opposite to $D$.
82. Answer: (B)

Three persons are sitting between $A$ and $B$, when counted from the left of $B$.
83. Answer: (B)
$D$ sits second to the right of $E$.
84. Answer: (D)
$C$ is fifth to the left of $D$.
85. Answer: (A)

If all the persons are arranged in alphabetical order starting from position of $A$ in the clockwise direction, then two persons ( $C$ and $D$ ) remain in the same place (except A).
Direction (86-87):
The final table is shown below:

| Word | help | order | live | beyond |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Code | phk | rde | vlp | ynd |  |
| Word | hold | control | level | phone | dream |
| Code | dhl | ort | evl | npe | amd |

86. Answer: (C)
"hold" is coded as "dhl".
87. Answer: (C)

The code for "phone" is "npe".
88. Answer: (D)

Given:
AB4I5D6G87E99Q7I23Y52U7IN25
There are five alphabets (I, E, Q, Y and U) which are immediately followed by an odd number.
89. Answer: (C)

Given:
AB4I5D6G87E99Q7I23Y52U7IN25
There are five numbers (4, 7, 7, 2 and 7 ) which are immediately followed by a vowel.
90. Answer: (C)

Given:
AB4I5D6G87E99Q7I23Y52U7IN25
$4,6,8,7,5$ and 2 are immediately preceded by a consonant.
Sum $=(4+6+8+7+5+2)=32$
91. Answer: (A)

Given:
AB4I5D6G87E99Q7I23Y52U7IN25
$8^{\text {th }}$ number from the right end=7
Seventh element to the right of ' 7 ' is $U$.
92. Answer: (C)

The following Venn diagram can be drawn from the given statements,


Fb:- https://www.facebook.com/tesmuseduserve


From the above Venn diagram, only conclusion I and III follow.
93. Answer: (B)

Following figure can be formed:


From the following figure, both conclusion I and conclusion II follow.
94. Answer: (A)

Given: FACTORISATION
$2^{\text {nd }}, 6^{\text {th }}, 7^{\text {th }}, 12^{\text {th }}$, and $13^{\text {th }}$ letters of the word 'FACTORISATION' is A, R, I, O and N respectively.
Six meaningful words, RAIN, IRON, RANI, NORI, ROAN and NOIR can be formed using the given letters.
Answer: (A)
Given word:
POWERFULLY
The $1^{\text {st }}, 2^{\text {nd }}, 5^{\text {th }}$, and $7^{\text {th }}$ letters are ' $P$ ', ' $O$ ', $R$ ', ' $U$ '. The word formed will be 'POUR'.
The $2^{\text {nd }}$ letter of the word from the left end is 'POUR' is ' $O$ '.
96. Answer: (B)

Given:
$A>B \geq C ? D=E<F$
Option (a): Replacing '?' with >
$A>B \geq C>D=E<F$
Here, $A>D$ is true but $F>C$ is not true as relationship between F and C cannot be determined.
Option (b): Replacing '?' with =
$A>B \geq C=D=E<F$
Here, $A>D$ is true and $F>C$ is true.
Option (c): Replacing '?' with $\leq$
$A>B \geq C \leq D=E<F$
Here, $\mathrm{A}>\mathrm{D}$ is not true as relationship between A and $D$ cannot be determined and $F>C$ is true.
Option (d): Replacing '?' with $\geq$
$A>B \geq C \geq D=E<F$
Here, $A>D$ is true but $F>C$ is not true as relationship between F and C cannot be determined.
97. Answer: (B)

Given:
T_U_-W_-V
Option (a):
$\mathrm{T}>\mathrm{U}=\mathrm{W} \geq \mathrm{V}$
$\mathrm{T} \geq \mathrm{V}$ is false.
Option (b):
$\mathrm{T} \geq \mathrm{U}=\mathrm{W} \geq \mathrm{V}$
$\mathrm{T} \geq \mathrm{V}$ is true.
Option (c):
$\mathrm{T} \geq \mathrm{U}=\mathrm{W} \leq \mathrm{V}$
$\mathrm{T} \geq \mathrm{V}$ is false as relationship between T and V cannot be determined.
Option (d):
$\mathrm{T} \leq \mathrm{U}=\mathrm{W} \geq \mathrm{V}$
$\mathrm{T} \geq \mathrm{V}$ is false as relationship between T and V cannot be determined.
Direction (98-99):
From the above information we get the following figure:

98. Answer: (C)

Car C8 is to the north-west of Car C1.
99. Answer: (D)

Second Car is to the north-east of First Car except in option d.
100. Answer: (C)

Given Statement: $Q=C>R \geq P \geq D ; M \geq Z>P=S$
On combining, we get,
$M \geq Z>P=S \leq R<C=Q ; M \geq Z>P=S \geq D$
Conclusions:
I. $S>D$ : False (As, $M \geq Z>P=S \geq D$, so, $S \geq D$ )
II. $M \geq$ C: False (As, $M \geq Z>P=S \leq R<C$, so, the relationship between $C$ and $M$ cannot be determined) III. $\mathrm{D}<\mathrm{Z}$ : True (As, $\mathrm{M} \geq \mathrm{Z}>\mathrm{P}=\mathrm{S} \geq \mathrm{D}$, so, $\mathrm{D}<\mathrm{Z}$ )


## TEST FORM NUMBER <br> INSTRUCTIONS TO CANDIDATE

अधिकतम अंक<br>कुल प्रश्न<br>: 100<br>निर्धारित समय : 60 मिनट

## प्रश्नों को हल करने से पहले निम्नलिखित निर्देशों को ध्यान से पढ़ें

(1) इस पुस्तिका में 100 प्रश्न हैं, जो कि कुल तीन भागों में विभाजित हैं।

भाग- (I) : English Language
(30 प्रश्न)
भाग- (II) : Quantitative Aptitude
(35 प्रश्न)
भाग- (III) : Reasoning Aptitude
(35 प्रश्न)
(2) सभी प्रश्न अनिवार्य हैं तथा सबके बराबर अंक हैं।
(3) प्रश्नों को हल करना प्रारम्भ करने से पहले आपको इस पुस्तिका की जांच करनी चाहिए और यह सुनिश्चित करना चाहिए कि इसमें सभी पृष्ठ उपस्थित हैं और कोई पृष्ठ कम या बदला हुआ नहीं है। अगर आपको इस पुस्तिका में कोई दोष मिलता है, तो आपको तुरंत इसे बदलना होगा।
(4) प्रत्येक प्रश्न में नकारात्मक अंकन होता है क्योंकि प्रत्येक गलत उत्तर के लिए 0.25 अंक काट दिया जाएगा।
(5) आपको निरीक्षक द्वारा उत्तर पुस्तिका अलग से दी जाएगी। आपको प्रश्नों को हल करना प्रारम्भ करने से पहले अपना नाम, रोल नंबर, टेस्ट नाम /आईडी और/परीक्षा का नाम उत्तर-पुस्तिका पर सावधानीपूर्वक पूरा करना होगा। आपको उत्तर-पुस्तिका में निर्धारित स्थान पर अपना हस्ताक्षर भी करना होगा। इन निर्देशों का पूरी तरह से पालन किया 'जाना चाहिए, जिसको न करने पर आपकी उत्तर-पुस्तिका का मूल्यांकन नहीं किया जाएगा और आपको 'शून्य' अंक दिया जाएगा।
(6) उत्तर केवल पेंसिल या ब्लैक/ब्लू बॉल पेन द्वारा उत्तर- पुस्तिका प्रासंगिक प्रश्न संख्या के सम्बंधित गोले को पूरी तरह से ब्लैक करके दिखाया जाना चाहिए।
(7) OMR उत्तर पुस्तिका को एक मशीन द्वारा जांचा जायेगा। यदि किसी स्थिति में उपलब्ध जानकारी, आवेदन पत्र में दी गयी जानकारी से अलग पायी गयी, तो आवेदक का आवेदन निरस्त कर दिया जायेगा।
(8) निरीक्षक की अनुमति मिलने के बाद ही कोई परीक्षा कक्ष छोड़ सकता है।
(9) उपरोक्त में से किसी भी निर्देश का अनुपालन करने में विफल उम्मीदवार को उपयुक्त कार्यवाही/जुर्माना के लिए उत्तरदायी समझा जा सकता है।
(10) जितनी जल्दी हो सके उतनी जल्दी और सावधानी से प्रश्नों का उत्तर दें। कुछ सवाल कठिन हो सकते हैं और दूसरे आसान हो सकते हैं। किसी भी प्रश्न पर ज्यादा समय नहीं बिताएं।
(11) मोबाइल फोन और वायरलेस संचार उपकरण, परीक्षा कक्ष/कमरे में पूरी तरह से प्रतिबंधित हैं। कोई भी आवेदक अपने मोबाइल का या किसी वायरलेस संचार उपकरण को बंद करके भी अपने पास नहीं रख सकता। नियम का उल्लंघन करने पर आवेदक के विरूद्ध उचित कार्यवाही की जायेगी और उसका आवेदन भी निरस्त किया जा सकता है।
(12) उत्तर-पत्र पर कोई रफ काम नहीं किया जाना चाहिए।
(13) कोई भी उम्मीदवार परीक्षा पूरा होने से पहले परीक्षा कक्ष नहीं छोड़ सकता है।

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परीक्षार्थी का नाम :
दिनाँक :
``` \(\qquad\)
``` परीक्षा कोड
अनुक्रमांक :
```


## English Language

Direction (01-05): In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If the sentence is free from error, select 'No Error'.

1. (A) The future of the Antarctic hangs
(B) in the balance and these cities have
(C) a key role to played in securing the
(D) future of this fragile continent.
(E) No error
2. (A) Seagrasses are often called
(B) foundation plants or ecosystem engineers
(C) because they modify there environments
(D) to create unique habitats.
(E) No error
3. (A) North Korea, which also has
(B) dozens of nuclear weapons,
(C) signed that treaty in 1985
(D) but withdraws in 2003.
(E) No error
4. (A) The show was both a fun,
(B) twisty mystery and also a specific piece
(C) of art put together by an artist
(D) with a singularly point of view.
(E) No error
5. (A) With this decision, nine judges
(B) made it possible for the country
(C) to institutionalize peace after
(D) 50 years of internally conflict.
(E) No error

Direction (6-7): In the question given below, a sentence is given with one blank, followed by five options, each having a word which may or may not fit in the blank. From the given options, choose the one that gives the correct word that fits in the blank.
6. During the $\qquad$ of the British empire, thousands of women from India and other parts of Asia were brought to London to look after young children.
(A) transit
(B) periodic
(C) churl
(D) heydey
(E) lexicon
7. Business practices connected to the idea of a circular economy have gained in recent years.
(A) accumulation
(B) traction
(C) affectation
(D) insinuation
(E) assimilation

Direction (08-11): In the question below, a sentence is given with four words highlighted in bold. One of these four words may either be wrongly spelt or inappropriate in the context of the sentence. Find out the word, which is wrongly spelt or inappropriate, if any. If all the words are correctly spelled and appropriate in the context of the sentence, mark (E) as your answer.
8. Colombia, a middle-income South American nation, may simply lack the institutional capacity necessary to fulfill its own landmark agriment.
(A) lack
(B) capacity
(C) fulfil
(D) agriment
9. Computers increasingly become principal actors in leveraging data to formulate questions, which requires radical new ways of reasoning.
(A) increasingly
(B) leveraging
(C) formulate
(D) radical
(E) All are correct
10. Looking like cartoon caricatures of Arctic birds, puffins flew alongside the boat, a prelude to the great seabird colonies on the clif.
(A) caricatures
(B) prelude
(C) colonies
(D) clif
(E) All are correct
11. Lawsuits over cryptocurrency losses are mounted across the country, as investing in digital tokens and coins has become mainstream and the money at stake has increased significantly.
(A) mounted
(B) investing
(C) mainstream
(D) stake
(E) All are correct

Direction (12-14): In the following question, a sentence is given with a phrase or idiom highlighted in bold. Select the option given below that can replace the highlighted phrase and mark that as your answer.
12. The car broke up on my way to the office but luckily the garage was nearby.
(A) broke through
(B) broke off
(C) broke down
(D) broke into
(E) No improvement

When I need some motivation, I always fall back on Toni Morrison's books.
(A) fall through
(B) fall short off
(C) fall down from
(D) No improvement
(E) fall off
14. We should all work with our collective goal of a cleaner and greener earth.
(A) work towards
(B) work through
(C) work out
(D) work away
(E) No improvement
15. In the question below, four words are given, two of which may or may not share a synonymous or antonymous relationship. From the given options, choose the one that provides the correct pair of synonyms or antonyms.

1. renovate
2. Venerate
3. Adulate
4. Adulterate
(A) 1 and 2
(B) 1 and 4
(C) 2 and 3
(D) 2 and 4
(E) All are synonyms

Direction (16-20): In the question given below, a set of sentences is given, which when properly sequenced, form a coherent paragraph. Arrange the sentences in the correct sequence, and answer the questions that follow.
P. Fish is widely known as a healthy food, rich in protein and other nutrients, so how can this be?
Q. A combination of overfishing, pollution and environmental damage has led to significant losses in both quantities of fish (biomass) and the number of fish species (biodiversity) available.
R. People in Bangladesh are now eating $30 \%$ more fish than they did 20 years ago, but they are getting a smaller amount of important nutrients from it, a new study shows.
S. In Bangladesh as in many regions in the world, naturally harvested fish, which is known as capture fisheries, are faltering.
T. Well, it comes down to the types of fish available for people to eat.
16. Which of the following would be the FIRST statement after rearrangement?
(A) P
(B) Q
(C) $R$
(D) S
(E) T
17. Which of the following would be the SECOND statement after rearrangement?
(A) P
(B) R
(C) $Q$
(D) S
(E) $T$
18. Which of the following would be the THIRD statement after rearrangement?
(A) Q
(B) P
(C) $R$
(D) T
(E) S
19. Which of the following would be the FOURTH statement after rearrangement?
(A) Q
(B) R
(C) $P$
(D) S
(E) T
20. Which of the following would be the FIFTH (LAST) statement after rearrangement?
(A) P
(B) Q
(C) $R$
(D) S
(E) T

Direction (21-25): In the following passage, some of the words have been left out and replaced by a blank represented by a letter. First read the passage and try to understand what it is about. Then fill in the blanks as per the questions given.

Diet soda drinkers, beware. Recent epidemiological studies have confirmed that the sweeteners used in diet sodas and other lite drinks increase the risk of type 2 diabetes. Often asymptomatic, type 2 diabetes is the most common form of diabetes, and is most often found among people who are overweight and __(21)__. Even though the quantity of artificial sweeteners in our diet has increased ___(22)__ in recent years as industrial manufacturers add them with growing ___(23) to to not just drinks but also cereals, biscuits, cakes, low-calorie yogurts and even certain medicines, reliable and __(24)__ data on their health impacts are rare. Such products are marketed as low-calorie alternatives that are therefore healthy. This perception $\qquad$ (25) $\qquad$ consumers to overuse sweeteners to avoid putting on weight. But, even in moderation, these additives can have negative effects on health. Today, sweeteners are increasingly controversial, and suspected of contributing to weight gain and being carcinogenic.
21. (A) conventional
(C) solemn
(B) sedentary
(D) commensurate
22. (A) conveniently
(B) sensibly
(C) conclusively
(D) massively
(E) luxuriously
23. (A) annihilation
(B) loyalty
(C) misnomer
(D) abandon
(E) confluence
24.
(A) precise
(B) gullible
(C) endearing
(D) extravagant
(E) overwhelming
25.
(A) surveils
(B) encourages
(C) predominates
(E) postulates

Direction (26-30): Read the following passage carefully and answer the questions that follow.

The mighty Himalayas act as the water tower of the South and Southeast Asian region. More than ten major rivers originate from the Tibetan Autonomous Region of China. And for the past decade, India and China, the two biggest geopolitical forces in the region, have engaged in a hydro-power race to harness this power. The waters that flow from the Himalayas know no borders. These rivers include the Brahmaputra, the Yangtze, the Mekong, the Sutlej, the Indus, the Salween, and the Huang Ho, which is also known as the Yellow River.
The Brahmaputra has a total length of 2,880 kilometres with a total drainage area of $5,73,394$ square kilometres. It is shared by China, India, Bhutan and Bangladesh. The river is known as the Yarlung Tsangpo in China, the Siang and the Brahmaputra in India and the Jamuna in Bangladesh. The Brahmaputra is the lifeline for communities living along its banks. The path of the Brahmaputra has sculpted the natural and human landscape of two north-eastern Indian states, Arunachal Pradesh and Assam. The river nourishes the young and fragile ecology of the Eastern Himalayas and the rich diversity of people and languages in this frontier space.
In recent years, the central governments of India and China have decided to tame the Brahmaputra, by building hydropower dams. Among them are the Lower Subansiri Project and the Dibang Valley project. As many as 168 memoranda of understanding have been signed between the Arunachal Pradesh state government and private and public dam-building companies to build medium and large dams in the state.
The legendary 20th century Assamese singer and composer, Bhupen Hazarika, mentions the Brahmaputra river in one of his popular compositions Bistirno Parore. He was influenced by the American standard, Ol' Man River (Show Boat, 1936), sung by African-American artist Paul Leroy Robeson, who was involved in the American civil rights movement. In his song, Hazarika asks the mighty Brahmaputra the reason for its quiet and unbounded flow, amid the suffering and pain of the people living by its banks. Today, the song can be reinterpreted to reflect the great uncertainty and fear among the communities living in the Brahmaputra river basin, exhorting the river to answer back and not keep quietly flowing amid all the dam building.
In upstream Arunachal Pradesh, and downstream communities of Assam and Bangladesh, concern is widespread about plans to construct mega-dams by both China and India and water diversion infrastructure projects by China along the river system. The size and scale of proposed infrastructure developments on this river, and the wider region, is unprecedented in the development history of northeast India. Indigenous communities of the region are worried they will face tremendous social and economic upheaval if the projects go ahead.

This may not go down well with Beijing. India's policy of pursuing hydropower development in Arunachal Pradesh could have a negative impact on bilateral relations. New Delhi is essentially using this critical biodiversity hotspot to legitimise its sovereignty claims over Arunachal Pradesh by building mega hydroelectricity projects.
The Indian government's hydropower obsession has led to great fear among local communities in Arunachal Pradesh and Assam, for the first time significantly overriding existing concerns about upstream dam building projects by China. Recently, local people have taken to the streets in large-scale protests to voice their dissatisfaction.
The way forward must be to highlight the Himalayan environment as an area of cooperation between all the South and Southeast Asian countries that share the transborder water resources in the region. The only way to understand the Brahmaputra better is through a mix of modern research methods and traditional community-based knowledge systems. This approach should be central to any dialogue between and within the countries served by the river. An emphasis on multilateral cooperation will dispel the prevailing sense of conflict on this crucial river. The Brahmaputra, meanwhile, meanders along ceaselessly, shifting between its moods of ferocious rampage and eternal quiet flow.
26. Which of the following statements about Bhupen Hazarika's song on the Brahmaputra is TRUE?
(A) His song was influenced by an American counterpart.
(B) His song received international acclaim.
(C) The song was the first one on the river Brahmaputra.
(D) The song has been interpreted to reflect the contribution of the river to the communities.
(E) All are true
27. Why is there widespread concern about Indo-Chinese plans to construct mega-dams on the Brahmaputra?
(A) It will cause a lot of floods.
(B) It will disrupt the lives of indigenous communities.
(C) It will be too costly for India to afford.
(D) It will ruin relations with neighbouring countries like Pakistan.
(E) It will be detrimental for the environment.
28. Which of the following statements about the Brahmaputra river is FALSE?
(A) It is known as Jamuna in Bangladesh.
(B) Its waters are shared by China, India, Bhutan and Bangladesh.
(C) It has played a role in shaping the natural and human landscape of Arunachal Pradesh and Assam.
(D) The Brahmaputra is the longest river in the world.
(E) The Brahmaputra originates from the Himalayas.
29. What has been the response of local communities of Arunachal Pradesh and Assam to the government's hydropower obsession?
(A) A number of them who hold public sector jobs have gone on strike.
(B) Many of them have taken to the streets to protest.
(C) They have written petitions to the government.
(D) They support the government's efforts in this sector.
(E) They are content as the government has given them adequate compensation for the impact of the dam construction.
30. Which of the following words is closest in meaning to the word 'dispel' as used in the passage?
(A) banish
(B) allure
(C) hinder
(D) incite
(E) mediate

## Quantitative Aptitude

31. पेट्रा ने ₹ 3,300 का निवेश करके एक व्यवसाय शुरू किया। कुछ महीने बाद, पीटर ₹4,400 का निवेश करके उसके साथ जुड़ गया जहाँ अर्जित कुल वार्षिक लाभ $₹ 8,000$ में से पेट्रा को ₹ 4,500 प्राप्त हुए। पीटर कितने महीनों के बाद व्यवसाय में शामिल हुआ?
(A) 3 महीने
(B) 7 महीने
(C) 6 महीने
(D) 5 महीने
(E) 4 महीने
32. औसतन, रोहन किसी दिए गए वर्ष के पहले चार महीनों में ₹ 900 प्रति माह खर्च करता है और समान वर्ष के अगले आठ महीनों में ₹ 1500 प्रति माह खर्च करता है। यदि उस वर्ष की उसकी वार्षिक बचत ₹₹ 6000 है, तो उसकी औसत मासिक आय ज्ञात करें।
(A) ₹ 1400
(B) ₹ 1600
(C) ₹ 2200
(D) ₹ 1800
(E) ₹2000
33. 'A' और 'B' की वर्तमान आयु का अनुपात क्रमशः $4: 5$ है। यदि अब से 14 वर्ष बाद, उनकी आयु का योग 100 वर्ष होगा, तो 'A' की वर्तमान आयु ज्ञात कीजिए।
(A) 40 वर्ष
(B) 44 वर्ष
(C) 36 वर्ष
(D) 32 वर्ष
(E) 28 वर्ष
34. मार्च में, सौरव ने अपनी आय का $72 \%$ खर्च किया और शेष बचा लिया जो ₹ 14000 के बराबर है। अप्रैल में, यदि उसने अपनी बचत में $20 \%$ की वृद्धि की, तो अप्रैल में उसने अपनी आय का कितना प्रतिशत खर्च किया? (मार्च और अप्रैल में आय बराबर है)
(A) $68.5 \%$
(B) $72.5 \%$
(C) $66.4 \%$
(D) $58.6 \%$
(E) $74.2 \%$
35. 2 बेल्ट और 1 पर्स का क्रय मूल्य का योग ₹ 1960 है और 5 बेल्ट और 2 पर्स के क्रय मूल्य का योग ₹ 4520 है। $15 \%$ के लाभ पर 1 बेल्ट बेचने पर अर्जित लाभ (₹ में) क्या होगा?
(A) 115
(B) 90
(C) 100
(D) 80
(E) 125
36. एक विक्रेता ने किसी वस्तु को उसके क्रय मूल्य से $80 \%$ अधिक अंकित किया। यदि वह उस वस्तु को $22 \frac{2}{9} \%$ की छूट देकर बेचता है, तो उसे होने वाले लाभ/हानि प्रतिशत ज्ञात कीजिए?
(A) $43 \frac{1}{3} \%$
(B) $66 \frac{2}{3} \%$
(C) $60 \%$
(D) $40 \%$
(E) $83 \frac{1}{3} \%$
37. एक व्यक्ति ने ₹ 1,200 को $20 \%$ प्रति वर्ष साधारण ब्याज की दर से और ₹ 800 को $25 \%$ प्रति वर्ष साधारण ब्याज की दर से निवेश किया, तो उसे 4 वर्ष बाद प्राप्त कुल राशि ज्ञात कीजिए।
(A) ₹ 2,760
(B) ₹ 3,760
(C) ₹ 1,760
(D) ₹ 2,250
(E) ₹ 3,250
38. एक 480 लीटर मिश्रण (दूध + पानी) में दूध और पानी क्रमशः $5: 7$ के अनुपात में है। यदि दिए गए मिश्रण में ' $y$ ' लीटर दूध मिला दिया जाता है, तो परिणामी मिश्रण में दूध और पानी की मात्रा का अनुपात $6: 7$ हो जाता है। ' $y$ ' का मान ज्ञात कीजिए?
(A) 60
(B) 50
(C) 40
(D) 30
(E) 35
39. ' $P$ ' अकेले एक काम को 21 दिनों में पूरा कर सकता है जबकि 'P' और 'Q' मिलकर उसी काम को 10 दिनों में पूरा कर सकते हैं। 'Q' द्वारा 15 दिनों में किए गए कुल काम का भाग ज्ञात कीजिए।
(A) $(9 / 11)$
(B) $(11 / 14)$
(C) $(9 / 14)$
(D) $(7 / 9)$
(E) $(4 / 5)$
40. एक नाव द्वारा पॉइंट ' $A$ ' से पॉइंट ' $B$ ' तक और फिर पॉइंट ' $B$ ' से पॉइंट ' $A$ ' की दूरी को तय करने में लिया गया कुल समय 22.5 घंटे है जबकि शांत पानी में नाव की गति 12 किमी/घंटा है जो धारा की गति से $200 \%$ अधिक है। पॉइंट 'A' और 'B' के बीच की दूरी ज्ञात कीजिए।
(A) 112 किमी
(B) 160 किमी
(C) 90 किमी
(D) 120 किमी
(E) 180 किमी
41. एक वर्गाकार प्लाट का परिमाप 120 मी है और एक आयताकार प्लाट का क्षेत्रफल वर्गाकार प्लाट के क्षेत्रफल से $60 \%$ अधिक है। एक आयताकार प्लाट का क्षेत्रफल (मी ${ }^{2}$ में) ज्ञात कीजिए?
(A) 1400
(B) 1440
(C) 1240
(D) 1600
(E) 1100

निर्देश (42-43): निम्नलिखित प्रश्न में प्रश्नवाचक चिन्ह (?) के स्थान पर लगभग कितना मान आएगा? (ध्यान दें : आपसे सटीक मान की गणना करने की अपेक्षा नहीं की जाती है।)
42. $\quad 19.98 \%$ of $999.998+\sqrt{ } 224.98=$ ?
(A) 170
(B) 185
(C) 245
(D) 215
(E) 200
43. $(14.01)^{2}+(5.98)^{2}=?-19.98$
(A) 52
(B) 152
(C) 352
(D) 252
(E) 292

निर्देश (44-50): दिए गए व्यंजक में प्रश्नवाचक चिन्ह (?) के स्थान पर क्या आएगा?
44. $(1 / 2) \div(3 / 2) \div(4 / 12) \times(9 / 6)=(? / 2)$
(A) 5
(B) 6
(C) 2
(D) 3
(E) 4
45. $240 \div 15+112 \div 8=$ ?
(A) 35
(B) 30
(C) 42
(D) 50
(E) 40
46. $(380 \div 20-7) \times ?=420$
(A) 30
(B) 45
(C) 35
(D) 29
(E) 31
47. $(1 / 5)+(2 / 15)+(5 / 7)=22 \times$ ?
(A) $(1 / 21)$
(B) $(1 / 19)$
(C) $(1 / 23)$
(D) $(1 / 17)$
(E) $(1 / 18)$
48. $955-25 \%$ of $176+33266=$ ?
(A) 34157
(B) 34189
(C) 34158
(D) 34177
(E) इनमें से कोई नहीं
49. $12 \%$ of $20 \%$ of $500+120=? \times 4$
(A) 25
(B) 45
(C) 60
(D) 33
(E) 48
50. $(18 \times 19)+26^{2}=? \times 2$
(A) 309
(B) 409
(C) 509
(D) 519
(E) 319

निर्देश (51-53): निम्नलिखित संख्याएँ एक श्रृंखला बनाती हैं। विषम का चुनाव करें?
51. $1086,1093,1114,1149,1197,1261$
(A) 1086
(B) 1093
(C) 1114
(D) 1197
(E) 1149
52. $120,116,104,84,52,20$
(A) 116
(B) 52
(C) 20
(D) 84
(E) 104
53. $96,144,216,320,486,729$
(A) 144
(B) 486
(C) 216
(D) 320
(E) 729

निर्देश (54-55): प्रश्नों में दो समीकरण । और ॥ दिए गए हैं। आपको $x$ और $y$ के बीच सही संबंध स्थापित करने के लिए दोनों समीकरणों को हल करना है और सही विकल्प चुनना है।
54. I. $x^{2}-12 x=-32$
II. $y^{2}+45=18 y$
(A) $x>y$
(B) $x<y$
(C) $x=y$ या संबंध स्थापित नहीं किया जा सकता
(D) $x \geq y$
(E) $x \leq y$
55. I. $4 x^{2}+24 x+35=0$
II. $8 y^{2}+26 y+15=0$
(A) $x>y$
(B) $x<y$
(C) $x=y$ या संबंध स्थापित नहीं किया जा सकता
(D) $x \leq y$
(E) $x \geq y$

निर्देश (56-60): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

कुछ संख्या में व्यक्तियों के बीच उनके द्वारा पसंद किए गए हेयर प्रोडक्ट (हेयर क्रीम या हेयर जेल) के प्रकार के बारे में सर्वेक्षण किया गया था। 27 व्यक्ति न तो हेयर क्रीम और न ही हेयर जेल पसंद करते हैं। 110 व्यक्तियों को हेयर जेल पसंद है, जिसमें से 45 व्यक्तियों को हेयर क्रीम भी पसंद है। केवल हेयर क्रीम पसंद करने वाले व्यक्तियों की संख्या केवल हेयर जेल पसंद करने वालों की संख्या से 23 अधिक थी।
56. सर्वेक्षण में शामिल व्यक्तियों की कुल संख्या कितनी है?
(A) 180
(B) 200
(C) 240
(D) 225
(E) 198
57. केवल हेयर क्रीम पसंद करने वाले व्यक्तियों की संख्या में पुरुषों की संख्या और महिलाओं की संख्या का अनुपात $3: 5$ है। केवल हेयर क्रीम पसंद करने वाली महिलाओं की संख्या कितनी है?
(A) 60
(B) 55
(C) 70
(D) 50
(E) 33
58. कितने व्यक्तियों को एक ही हेयर प्रोडक्ट पसंद आता है?
(A) 184
(B) 155
(C) 160
(D) 153
(E) 175
59. न तो हेयर क्रीम और न ही हेयर जेल पसंद करने वाले व्यक्तियों की संख्या, हेयर क्रीम और हेयर जेल दोनों पसंद करने वाले व्यक्तियों की संख्या का कितना प्रतिशत है?
(A) $60 \%$
(B) $40 \%$
(C) $55 \%$
(D) $70 \%$
(E) $65 \%$
60. हेयर जेल पसंद करने वाले व्यक्तियों की संख्या और केवल हेयर क्रीम पसंद करने वाले व्यक्तियों की संख्या के बीच का अंतर कितना है?
(A) 30
(B) 22
(C) 27
(D) 18
(E) 25

निर्देश (61-65): नीचे दी गयी जानकारी के आधार पर प्रश्नों के उत्तर दें।

दिया गया लाइन ग्राफ पांच अलग-अलग दुकानों द्वारा बेचे गए फूलों (कमल + गुलाब + लिली) की कुल संख्या को दर्शाता है।


नीचे दिया गया बार ग्राफ दी गई पांच दुकानों द्वारा बेचे गए कमल और गुलाब की संख्या को दर्शाता है।

61. यदि दुकान ' $F$ ' द्वारा बेचे गए कमल और गुलाब की संख्या का अनुपात क्रमशः $2: 3$ है और इसके द्वारा बेचे गए कमल और गुलाबों की औसत संख्या 1250 है, तो दुकान ' $F$ ' और दुकान 'A' द्वारा बेचे गए गुलाब की संख्या के बीच का अंतर ज्ञात कीजिए?
(A) 200
(B) 250
(C) 300
(D) 350
(E) 400
62. दुकानों ' $A$ ' और ' $B$ ' द्वारा बेची गयी लिली की संख्या के बीच का अंतर ज्ञात कीजिए।
(A) 100
(B) 200
(C) 180
(D) 250
(E) इनमें से कोई नहीं
63. दुकान ' $C$ ' द्वारा बेचे गए कमल, गुलाब और लिली की संख्या का क्रमशः अनुपात कितना है:
(A) 15:12:23
(B) $8: 5: 5$
(C) $25: 23: 22$
(D) $28: 21: 11$
(E) $6: 3: 1$
64. दुकान ' $D$ ' द्वारा बेचे गए फूलों की कुल संख्या, दुकानों 'A', 'B' और 'C' द्वारा मिलाकर बेचे गए कमल की कुल संख्या का कितना प्रतिशत है?
(A) $25 \%$
(B) $40 \%$
(C) $60 \%$
(D) $75 \%$
(E) $50 \%$
65. यदि दुकान ' $Q$ ' द्वारा बेची गयी लिली की संख्या दुकान ' $C$ ' की तुलना में $61.6 \%$ अधिक है, तो दुकान ' $Q$ ' द्वारा बेची गयी लिली की संख्या ज्ञात करें?
(A) 4020
(B) 4400
(C) 4040
(D) 4004
(E) 4440

## Reasoning Aptitude

निर्देश (66-70): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें।

नौ डिब्बे ( $N 1, N 2, N 3, N 4, N 5, N 6, N 7, N 8$, और $N 9$ ) एक दूसरे के ऊपर इस प्रकार रखे गए हैं कि सबसे नीचे वाले डिब्बे की संख्या 1 है और सबसे ऊपर वाले डिब्बे की संख्या 9 है, लेकिन ज़रूरी नहीं कि इसी क्रम में।
N6 और N2 दोनों सम संख्या से अंकित डिब्बे हैं। N8 और N7 दोनों अभाज्य संख्या से अंकित डिब्बे हैं। N1 और N3 के बीच दो डिब्बे रखे गए हैं। N3 छठे डिब्बे के ऊपर एक विषम संख्या से अंकित डिब्बा है। N9 को N5 के दो डिब्बे ऊपर रखा गया है। N6 को N9 के ऊपर रखा गया है। N7 को N8 के तत्काल ऊपर रखा गया है।
66. निम्नलिखित पांच में से चार एक समूह के आधार पर एक निश्चित तरीके से समान हैं, निम्नलिखित में से कौन उस समूह से संबंधित नहीं है?
(A) डिब्बा $N 9$
(B) डिब्बा N5
(C) डिब्बा N7
(D) डिब्बा N6
(E) डिब्बा N8
67. __डिब्बों को डिब्बे N 4 के नीचे रखा गया है।
(A) तीन
(B) पांच
(C) एक
(D) एक भी नहीं
(E) उपरोक्त में से कोई नहीं
$\qquad$ बॉक्स रखा गया
68. बॉक्स $N 5$ को बॉक्स $N 7$ के ऊपर है।
(A) एक
(B) दो
(C) तीन
(D) चार
(E) निर्धारित नहीं किया जा सकता
69. निम्नलिखित में से कौन-सा कथन निश्चित रूप से सही है?
(A) डिब्बा N6 आठवां डिब्बा है
(B) N3 और N6 के बीच एक डिब्बा रखा गया है
(C) डिब्बा N2 छठा डिब्बा है
(D) दोनों $(A)$ और $(B)$
(E) दोनों (B) और (C)
70.
(A) डिब्बा $N 7$
(B) डिब्बा N2
(C) डिब्बा N5
(D) डिब्बा N6
(E) निर्धारित नहीं किया जा सकता

निर्देश (71-75): दिए गए जानकारी के आधार पर सवालों के उत्तर दें।

आठ व्यक्ति $A, B, C, D, E, F, G$ और $H$ एक क्षैतिज पंक्ति में उत्तर दिशा का सामना करते हुए बैठे हैं।
$G$ और $F$ के बीच दो व्यक्ति बैठे हैं और $F$ किसी एक अंतिम छोर से तीसरे स्थान पर बैठा है। $G, A$ के दायें से दुसरे स्थान पर बैठा है। D, A और F के बगल में नहीं बैठा है। $E, D$ के बाएं से दुसरे स्थान पर बैठा है। ना ही $C$ ना ही $H, F$ के बगल में बैठे हैं। $D$ और $C$ के बीच अधिकतम दो व्यक्ति बैठे हैं।
71. $F$ और $E$ के बीच कितने व्यक्ति बैठे हैं?
(A) दो
(B) तीन
(C) चार
(D) एक
(E) निर्धारित नहीं किया जा सकता
72. पंक्ति के दायें छोर से दुसरे स्थान पर कौन बैठा है?
(A) E
(B) D
(C) F
(D) B
(E) इनमे से कोई भी नहीं
73. C के तत्काल बाएं कौन बैठा है?
(A) D
(B) A
(C) B
(D)
(E) इनमे से कोई भी नहीं
74. विषम का चुनाव करें।
(A) B - A
(B) $\mathrm{F}-\mathrm{E}$
(C) $\mathrm{A}-\mathrm{G}$
(D) $\mathrm{F}-\mathrm{H}$
(E) G - C
75. $F$ के सन्दर्भ में $A$ का क्या स्थान है?
(A) तत्काल बाएं
(B) बाएं से दूसरा
(C) बाएं से तीसरा
(D) तत्काल दायें
(E) इनमे से कोई नहीं

निर्देश (76-80): नीचे दी गई जानकारी के आधार पर निम्नलिखित प्रश्न का उत्तर दें।

सात व्यक्तियों राम, रोहित, राधिका, अनुपम, सूरज, शौर्य और श्रेया का जन्म वर्ष 2000 के जून से दिसंबर तक अलग-अलग महीनों की पहली तारीख को होता है। उन्हें सेब, अंगूर, अमरूद, केला, आम, लीची और कीवी में से अलग-अलग फल पसंद हैं।
राम सेब को पसंद करता है और उसका जन्म सितंबर या नवंबर में हुआ था। सूरज का जन्म जुलाई में हुआ था और वह आम पसंद करता है। सूरज और अंगर पसंद करने वाले के बीच दो लोगों का जन्म हुआ। रोहित का जन्म अंगूर पसंद करने वाले व्यक्ति के बाद हुआ था। श्रेया का जन्म रोहित से दो महीने पहले हुआ था। शौर्य को लीची पसंद है और वह मात्र 30 दिनों वाले महीने में पैदा नहीं हुआ था। राधिका को अमरुद पसंद नहीं है। केला पसंद करने वाले व्यक्ति का जन्म कीवी पसंद करने वाले व्यक्ति के तत्काल पहले हुआ था। अमरुद पसंद करने वाले व्यक्ति का जन्म सूरज से पहले हुआ था।
76. अनुपम का जन्म $\qquad$ में हुआ था और वह $\qquad$ पसंद करता हैं।
(A) नवंबर, अंगूर
(B) अगस्त, कीवी
(C) दिसंबर, केला
(D) जून, अमरूद
(E) उपरोक्त में से कोई नहीं
77. अंगूर पसंद करने वाले व्यक्ति से पहले कितने लोग पैदा हुए थे?
(A) दो
(B) तीन
(C) चार
(D) पाँच
(E) एक भी नही
78. $\qquad$ को कीवी पसंद है और वह $\qquad$ में पैदा हुआ था।
(A) अनुपम, जुलाई
(B) राधिका, नवंबर
(C) रोहित, दिसंबर
(D) श्रेया, अगस्त
(E) उपरोक्त में से कोई नहीं
79. अनुपम और राधिका के बीच कितने लोग पैदा हुए थे?
(A) पाँच
(B) चार
(C) तीन
(D) दो
(E) एक भी नही
80. निम्नलिखित में से कौन सा कथन असत्य है?
(A) अनुपम का जन्म जून में हुआ था और वह अमरुद पसंद करता है
(B) शौर्य का जन्म अक्टूबर में हुआ था
(C) शौर्य और रोहित के बीच तीन लोगों का जन्म हुआ था
(D) रोहित सबसे छोटा है
(E) सभी कथन असत्य हैं

निर्देश (81-85): दिए गए जानकारी के आधार पर सवालों के उत्तर दें।

छह व्यक्ति $A, B, C, D, E$, और $F$ एक षट्भुज-आकार के मेज़ के कोने पर बेठे हैं जहाँ कुछ का मुख केंद्र की ओर है और कुछ का मुख केंद्र से बाहर की ओर है।
$C, A$ के बाएं से दुसरे स्थान पर बैठा है। $B, E$ के तत्काल दायें बैठा है और $E, F$ के सन्दर्भ में विपरीत दिशा का सामना करते हैं। $C$ और $E$ के बीच दो व्यक्ति बेठे हैं। $A, D$ के बगल में नहीं बैठा है। $B$ और $C$ समान दिशा का सामना करते हैं पर $E$ के विपरीत। $C, D$ के तत्काल बाएं नहीं बैठा है। F का मुख केंद्र की और नहीं है।
81. $D$ के विपरीत कौन बैठा है?
(A) C
(B) B
(C) A
(D) E
(E) इनमे से कोई भी नहीं
82. $B$ के बाएं से गणना करते हुए, $A$ और $B$ के बीच कितने व्यक्ति बैठे हैं?
(A) दो
(B) तीन
(C) एक
(D) चार
(E) कोई भी नहीं
83. $E$ के दायें से दुसरे स्थान पर कौन बैठा है?
(A) F
(B) D
(C) B
(D) A
(E) इनमे से कोई भी नहीं
84. $D$ के सन्दर्भ में $C$ का क्या स्थान है?
(A) तत्काल बाएं
(B) बाएं से चौथा
(C) दायें से तीसरा
(D) बाएं से पांचवां
(E) इनमे से कोई नहीं
85. यदि सभी व्यक्तियों को घड़ी की चाल की दिशा में $A$ के स्थान से शुरू करते हुए वर्णानुक्रम में व्यवस्थित किया जाता है, तो कितने व्यक्ति समान स्थान पर रहते हैं ( $A$ को छोड़कर)?
(A) दो
(B) एक
(C) तीन
(D) पांच
(E) इनमे से कोई नहीं

निर्देश (86-87): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें:

एक कूट भाषा में,
I. 'help order live beyond' का कूट है 'rde, ynd, vlp, phk'.
II. 'order beyond hold control' का कूट है 'dhl, rde, ort, ynd'
III. 'beyond control level phone' को 'npe, ort, evl, ynd' के रूप में कोडित किया गया है।
IV. 'live hold level dream' is coded as 'amd, vip, dhl, evl'
86. दी गई भाषा में $\qquad$ का कूट "dhl" है।
(A) control
(B) beyond
(C) hold
(D) level
(E) इनमे से कोई नहीं
87. दिए गए भाषा में "phone" का कूट क्या होगा?
(A) amd
(B) evl
(C) npe
(D) $\mathrm{v} / \mathrm{p}$
(E) तय नहीं किया जा सकता

निर्देश (88-91): संख्याओं और वर्णमाला की निम्नलिखित व्यवस्था का ध्यानपूर्वक अध्ययन करें और निम्नलिखित प्रश्न का उत्तर दें।

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88. ऐसे कितने अक्षर हैं जिनके तत्काल बाद एक विषम संख्या है?
(A) दो
(B) तीन
(C) चार
(D) पांच
(E) उपरोक्त में से कोई नहीं
89. कितने संख्या के तत्काल बाद एक स्वर है?
(A) तीन
(B) चार
(C) पांच
(D) पांच से अधिक
(E) उपरोक्त में से कोई नहीं
90. उन सभी संख्याओं का योग कितना है, जिनके तत्काल पहले एक व्यंजन है?
(A) 26
(B) 30
(C) 32
(D) 28
(E) उपरोक्त में से कोई नहीं
91. दाएं छोर से 8 वीं संख्या के दाएं से सातवां तत्व कौन-सा है?
(A) $\cup$
(B) $Y$
(C) 2
(D) 7
(E) उपरोक्त में से कोई नहीं
92. निम्नलिखित प्रश्न में चार कथन के बाद चार निष्कर्ष I, II, II और IV दिए गए हैं।आपको दिए गए कथन को सत्य मानना है भले ही वह ज्ञात तथ्यों से भिन्न भी हो और फिर यह तय करना है कि दिए गए निष्कर्षों में से कौन सा निष्कर्ष इन कथनों का तर्कसंगत अनुसरण करता है।
कथन: सभी गौरैया चिड़िया है
सभी मुर्गी चिड़िया है
कोई भी गैरैया बाज़ नहीं है
सभी मुर्गी पालतू है
निष्कर्ष: I. कुछ चिड़िया पालतू है
II. कोई भी बाज़ पालतू नहीं है
III. कुछ चिड़िया बाज़ हो सकते है
IV. सभी चिड़िया बाज़ हो सकते हैं
(A) केवल निष्कर्ष ॥ और ॥I अनुसरण करता है
(B) केवल निष्कर्ष। और ॥ अनुसरण करता है
(C) केवल निष्कर्ष । और III अनुसरण करता है
(D) केवल निष्कर्ष ॥ और IV अनुसरण करता है
(E) इनमे से कोई नहीं
93. निम्नलिखित प्रश्न में तीन कथन के बाद दो निष्कर्ष। और ॥ दिए गए हैं। आपको दिए गए कथन को सत्य मानना है भले ही वह ज्ञात तथ्यों से भिन्न भी हो और फिर यह तय करना है कि दिए गए निष्कर्षों में से कौन सा निष्कर्ष इन कथनों का तर्कसंगत अनुसरण करता है।
कथन: कोई भी जंक हेल्दी नहीं है
कुछ हेल्दी बेटर है
केवल कुछ बेटर गुड है
निष्कर्ष: I. कुछ हेल्दी गुड हो सकते हैं
II. कुछ बेटर जंक नहीं है
(A) केवल निष्कर्ष। अनुसरण करता है
(B) दोनों निष्कर्ष। और निष्कर्ष ॥ अनुसरण करता है
(C) केवल निष्कर्ष ॥ अनुसरण करता है
(D) ना ही निष्कर्ष । ना ही निष्कर्ष ॥ अनुसरण करता है
(E) या निष्कर्ष । या निष्कर्ष॥ अनुसरण करता है
94. शब्द 'FACTORISATION' के बाएं छोर से दूसरे, छठे, सातवें, बारहवें और तेरहवें अक्षर का प्रयोग करके कितने अर्थपूर्ण चार अक्षर वाले शब्द बनाए जा सकते हैं?
(A) तीन से अधिक
(B) तीन
(C) दो
(D) एक
(E) एक भी नही
95. यदि शब्द 'POWERFULLY' में अक्षर 'P' से शुरू होते शब्द के बाएं छोर से पहले, दूसरे, पांचवें और सातवें अक्षर से एक अर्थपूर्ण अंग्रेजी शब्द बनाना संभव हो, तो इस तरह निर्मित शब्द के बाएं छोर से दूसरा अक्षर क्या होगा? यदि ऐसा कोई शब्द नहीं बनाया जा सकता है, तो उत्तर को ' $X$ '

के रूप में चिह्नित करें, और यदि एक से अधिक शब्द बन सकते हैं तो उत्तर को ' $Y$ ' के रूप में चिह्नित करें।
(A) O
(B) $Y$
(C) X
(D) $\cup$
(E) $R$
96. निम्नलिखित संबंध में कौन-सा उपयुक्त चिन्ह लगाया जाना चाहिए ताकि $A>D$ सत्य हो और $F>C$ सत्य हो?
$A>B \geq C$ ? $=E<F$
(A) $>$
(B) $=$
(C) $\leq$
(D) $\geq$
(E) इनमे से कोई भी नहीं
97. दिए गए व्यंजक को इस तरह से पूरा करने के लिए कि 'T $\geq V^{\prime}$ निश्चित रूप से सत्य है, निम्नलिखित में से कौन-सा प्रतीक क्रमशः रिक्त स्थानों में (बाएं से दाएं उसी क्रम में) रखा जाना चाहिए?
T_U_W_-V
(A) $>,=, \geq$
(B) $\geq,=, \geq$
(C) $\geq,=, \leq$
(D) $\leq,=, \geq$
(E) इनमे से कोई भी नहीं

निर्देश (98-99): नीचे दी गई जानकारी के आधार पर प्रश्नों के उत्तर दें:

आठ कारें $\mathrm{C} 1, \mathrm{C} 2, \mathrm{C3}, \mathrm{C} 4, \mathrm{C}, \mathrm{C} 6, \mathrm{C7}$ और $\mathrm{C8}$ एक पार्किंग स्थल में इस प्रकार खड़ी हैं कि $\mathrm{C} 2, \mathrm{C} 7$ के 10 मी पश्चिम में है और $\mathrm{C}, \mathrm{C4}$ के 20 मी दक्षिण में है। $\mathrm{C3}, \mathrm{C4}$ के 5 मी पश्चिम में है। $\mathrm{CB}, \mathrm{C} 3$ के 25 मी उत्तर में है। $\mathrm{C6}$, C 8 के 30 मी पूर्व में है। C5, C6 के 35 मी दक्षिण में है। C1, C5 के 15 मी पश्रिम में है।
98. कार C 1 के सन्दर्भ में कार C 8 की दिशा क्या है?
(A) उत्तर
(B) उत्तर पूर्व
(C) उत्तर पश्रिम
(D) दक्षिण पूर्व
(E) दक्षिण पश्चिम
99. विषम चुनें।
(A) C1 - C6
(B) $\mathrm{C} 2-\mathrm{C} 5$
(C) $\mathrm{C} 7-\mathrm{C} 1$
(D) C3-C2
(E) C4-C6
100. प्रश्न में दिए गए कथनों को सत्य मानते हुए ज्ञात कीजिए कि दिए गए तीन निष्कर्षों में से कौन सा/से निष्कर्ष निश्चित रूप से सत्य है/हैं और फिर उसी के अनुसार अपना उत्तर दें।
कथन: $Q=C>R \geq P \geq D ; M \geq Z P=S$
निष्कर्ष: I. $S>D \quad$ II. $M \geq C$
III. $\mathrm{D}<\mathrm{Z}$
(A) के वल निष्कर्ष। सत्य है
(B) केवल निष्कर्ष। और ॥ सत्य है
(C) केवल निष्कर्ष III सत्य है
(D) केवल निष्कर्ष ॥ सत्य है
(E) केवल निष्कर्ष । और III सत्य है

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## English Language

1. Answer: (C)

In C, replace the second form verb PLAYED with PLAY as the TO + VERB infinitive construction will take the base form of the verb. Thus, C is the right answer.
2. Answer: (C)

In C, replace the adverb THERE with the possessive pronoun THEIR to modify the noun ENVIRONMENTS. So, $C$ is the correct answer.
3. Answer: (D)

In D, replace the present tense form verb WITHDRAWS with the second form WITHDREW as the sentence talks of a past event that took place in 2003. Thus, D is the right answer.
4. Answer: (D)

In D, replace the adverb SINGULARLY with the adjective SINGULAR as it is being used to modify the noun POINT. Thus, (d) is the right answer.
5. Answer: (D)

In D, replace the adverb INTERNALLY with the adjective INTERNAL as it is being used to modify the noun CONFLICT. Thus, $D$ is the right answer.
6. Answer: (D)

We need a noun to be modified by the definite article THE. HEYDEY (prime) will fit here as the sentence tells us how, during the peak of the British empire, thousands of Indian women were brought to London to take care of children. Thus, (d) is the right answer. Transit - transport. Periodic (adjective) - occurring at regular intervals. Churl - a rude person. Lexicon vocabulary.
7. Answer: (B)

We need a noun to form the object of the verb GAINED. TRACTION (act of drawing attention) will fit here contextually as the sentence talks about business practices related to circular economy drawing attention in recent years.Thus, (b) is the right answer.
Accumulation/ assimilation - act of gathering or collecting. Affectation - unnatural behaviour. Insinuation - an unpleasant suggestion.
8. Answer: (D)

It should be agreement in place of agriment. Thus, D is the right answer.
9. Answer: (D)

The sentence seeks to convey that computers become principal (main) actors in leveraging (taking something to gain advantage) data to formulate (prepare) questions which require completely new ways of reasoning. RADICAL (adjective) will be inappropriate here and should be replaced with the adverb RADICALLY (extremely) as we need an adverb to modify the adjective NEW. Thus, (d) is the right answer.
10. Answer: (D)

It should be cliff in place of clif. Thus, D is the right answer.
11. Answer: (A)

Replace second form verb MOUNTED with present continuous form verb MOUNTING as we need a verb in present continuous form to fit in ARE + VERB present continuous tense construction. The sentence seeks to convey that lawsuits over losses incurred in cryptocurrency are mounting (increasing) as investing (putting money into) has become mainstream (popular) and the money at stake (at risk) has greatly increased.

## 12. Answer: (C)

(c) is the right answer. We need a phrase that means to stop working. BROKE DOWN will be apt here as the sentence talks about the car stopping to work.

BROKE THROUGH- to pass through a barrier BROKE UP- to break into pieces
BROKE DOWN- (of a machine) to stop working BROKE OFF- to detach from a whole
13. Answer: (D)
(d) is the right answer. We need a phrase that means to rely on. FALL BACK ON will be apt here as the sentence talks about the speaker relying on Toni Morrison's books for motivation.
FALLS OFF- to decrease; to separate from a whole FALLS THROUGH- to fail or be cancelled FALLS DOWN FROM- to fall from a particular place FALLS SHORT OFF- something is less in comparison to something else.
14. Answer: (A)
(a) is the right answer. We need a phrase that means to work to achieve a particular objective. WORK TOWARDS will be apt here as the sentences talks about working to achieve a common goal of cleaner and greener earth.
WORK TOWARDS- to work to achieve a particular objective
WORK THROUGH- to deal with a situation
WORK OUT- to exercise
WORK AWAY is contextually inapt.
15. Answer: (C)

ADULATE means to respect or admire deeply. VENERATE is its synonym. Thus, $C$ is the right answer.
Renovate - revamp; change the look of something. Adulterate - render something poorer in quality by adding something else.

## Direction (16-20):

The correct order of statements in the rearranged paragraph is RPTSQ. $R$ begins the passage by introducing the main idea that the passage revolves around - people in Bangladesh are consuming more fish that they used to do, but they are not getting sufficient nutrition from it. $P$ proceeds by posing the question why this can be the case even when fish is a nutritious and healthy food. T answers this question the amount nutrition obtained from consuming fish depends on the type of fish consumed. SQ concludes the para as a pair: S tells us how naturally harvested fish, which is very nutritious, is declining in Bangladesh. Q follows by telling us how overfishing, pollution and environmental damage has caused losses in the quality of fish.
16. Answer: (C)
17. Answer: (A)
18. Answer: (D)
19. Answer: (D)
20. Answer: (B)
21. Answer: (B)

We need an adjective to modify the noun PEOPLE. SEDENTARY (having a lifestyle with little to no physical activity) will fit here as the sentence tells us how type 2 diabetes is found among people who are overweight and doing little physical activity. Thus, B is the right answer.
Conventional - traditional. Solemn - serious; grave. Commensurate. corresponding in size or degree; in proportion. Infamous - notorious.

## 22. Answer: (D)

We need an adverb to modify the verb INCREASED. MASSIVELY (significantly) will fit here as the sentence tells us how the quantity of artificial sweeteners in our diet has increased in a significant proportion. Thus, D is the right answer.
Conveniently - having a benefit or advantage. Sensibly - wisely; prudently. Conclusively unquestionably. Luxuriously - comfortably or elegantly.
23. Answer: (D)

We need a noun to be modified by the adjective GROWING. ABANDON (lack of restraint) will fit here as the sentence tells us how industrial manufacturers add artificial sweeteners to food items without practising any restraint on their part. Thus, E is the right answer.
Annihilation - complete destruction. Loyalty faithfulness. Misnomer - a wrong or inaccurate name or designation. Confluence - convergence.
24. Answer: (A)

We need an adjective to modify the noun DATA. PRECISE (accurate) will fit here as the sentence tells us how reliable and accurate data on the health impacts of artificial sweeteners is rare. Thus, $A$ is the right answer.
Gullible - easily persuaded to believe something wrong. Endearing - lovable. Extravagant superfluous; wasteful. Overwhelming - very great or intense.
25. Answer: (B)

We need a singular verb to agree with the singular subject PERCEPTION. ENCOURAGES (persuades) will fit here as the sentence tells us how the perception convinces consumers to overuse sweeteners to avoid gaining weight.. Thus, B is the right answer.
Surveils - closely monitors or observes. Predominates - be the strongest or main element. Postulates suggests.
26. Answer: (A)

Refer to the lines: "The legendary 20th century Assamese singer and composer, Bhupen Hazarika, mentions the Brahmaputra river in one of his popular compositions Bistirno Parore. He was influenced by the American standard, Ol' Man River (Show Boat, 1936), sung by African-American artist Paul Leroy Robeson, who was involved in the American civil rights movement." These lines confirm A as true.
$B$ and $C$ are not mentioned in the passage.
Refer to the lines: "In his song, Hazarika asks the mighty Brahmaputra the reason for its quiet and unbounded flow, amid the suffering and pain of the people living by its banks. Today, the song can be reinterpreted to reflect the great uncertainty and fear among the communities living in the Brahmaputra river basin, exhorting the river to answer back and not keep quietly flowing amid all the dam building." These lines confirm D as false.
27. Answer: (B)

Refer to the lines: "In upstream Arunachal Pradesh, and downstream communities of Assam and Bangladesh, concern is widespread about plans to construct mega-dams by both China and India and water diversion infrastructure projects by China along the river system. The size and scale of proposed infrastructure developments on this river, and the wider region, is unprecedented in the development history of northeast India. Indigenous communities of the region are worried they will face tremendous social and economic upheaval if the projects go ahead." Thus, B is the right answer.
The other options are not mentioned in the passage.
28. Answer: (D)

A is the right as it is mentioned in the passage, while the other options are true.
Refer to the lines: "The Brahmaputra has a total length of 2,880 kilometres with a total drainage area of $5,73,394$ square kilometres. It is shared by China, India, Bhutan and Bangladesh. The river is known as the Yarlung Tsangpo in China, the Siang and the Brahmaputra in India and the Jamuna in Bangladesh. The Brahmaputra is the lifeline for communities living
along its banks. The path of the Brahmaputra has sculpted the natural and human landscape of two north-eastern Indian states, Arunachal Pradesh and Assam. The river nourishes the young and fragile ecology of the Eastern Himalayas and the rich diversity of people and languages in this frontier space." These lines confirm A, B and C as true.
Refer to the lines: "The waters that flow from the Himalayas know no borders. These rivers include the Brahmaputra, the Yangtze, the Mekong, the Sutlej, the Indus, the Salween, and the Huang Ho, which is also known as the Yellow River." These lines confirm E as true.
29. Answer: (B)

Refer to the lines: "The Indian government's hydropower obsession has led to great fear among local communities in Arunachal Pradesh and Assam, for the first time significantly overriding existing concerns about upstream dam building projects by China. Recently, local people have taken to the streets in large-scale protests to voice their dissatisfaction." These lines confirm B as the right answer.
The other options are not mentioned in the passage
30. Answer: (A)

DISPEL means to banish or make a feeling disappear. Thus, A is the right answer.
Allure - tempt; charm. Hinder - prevent. Incite provoke. Mediate - arbitrate.

## Quantitative Aptitude

31. Answer: (D)

पीटर का लाभ हिस्सा $=8000-4500=₹ 3,500$
तो, पेट्रा और पीटर के लाभ शेयरों का अनुपात, क्रमशः
$=4500: 3500=9: 7$
माना कि जितने महीनों के लिए पीटर ने अपनी राशि का
निवेश किया = ' $k$ ' महीने
तब, $(3300 \times 12) /(4400 \times k)=9 / 7$
या, $39600 \times 7=4400 \mathrm{k} \times 9$
या, $63=9 \mathrm{k}$
या, $k=(63 / 9)=7$
अतः, पीटर के व्यवसाय में शामिल होने के महीनों की संख्या = 12-7 = 5 महीने
32. Answer: (D)

रोहन का वार्षिक व्यय $=(900 \times 4)+(1500 \times 8)$
$=3600+12000=₹ 15600$
रोहन की वार्षिक आय $=15600+6000=₹ 21600$
अभीष्ट औसत $=21600 / 12=₹ 1800$
33. Answer: (D)

माना ' $A$ ' और ' $B$ ' की वर्तमान आयु क्रमशः ' $4 x$ ' वर्ष और
' 5 x ' वर्ष है।
प्रश्नानुसार;
$4 x+14+5 x+14=100$
या, $9 x=72$
या, $x=8$
अतः 'A' की वर्तमान आयु $=4 \times 8=32$ वर्ष
34. Answer: (C)

मार्च में सौरव की आय $=\{14000 /(1-0.72)\}$
= ₹50000
अप्रैल में सौरव की बचत $=14000 \times(120 / 100)$
= ₹ 16800
तो, अप्रैल में सौरव का खर्च $=50000-16800$
= ₹ 33200

इसलिए, सौरव द्वारा अप्रैल में खर्च की गई उसकी आय का प्रतिशत $=(33200 / 500000) \times 100=66.4 \%$
35. Answer: (B)

माना एक बेल्ट का क्रय मूल्य = ₹'A'
माना उसे पर्स का मूल्य = ₹'B'
प्रश्न के अनुसार,
$2 A+1 B=1960$ $\qquad$ (1) $5 \mathrm{~A}+2 \mathrm{~B}=4520$.

समीकरण (1) और (2) को हल करने पर, हम प्राप्त करते हैं
1 बेल्ट का क्रय मूल्य $=$ 'A' = ₹ 600
अत: अर्जित अपेक्षित लाभ $=600 \times(15 / 100)=₹ 90$
36. Answer: (D)

माना वस्तु का क्रय मूल्य $=₹^{\prime} 100 x^{\prime}$
वस्तु का अंकित मूल्य $=1.8 \times 100 x=₹ 180 x$
वस्तु पर दी गई छूट $=(2 / 9) \times 180 x=₹ 40 x$
वस्तु का विक्रय मूल्य $=180 x-40 x=₹ 140 x$
आवश्यक लाभ प्रतिशत $=\{(140 x-100 x) / 100 x\} \times$ $100=(40 x / 100 x) \times 100=0.4 \times 100=40 \%$
37. Answer: (B)

4 वर्षों में अर्जित कुल ब्याज $=\{(1200 \times 4 \times 20) / 100\}$
$+\{(800 \times 4 \times 25) / 100\}=960+800=₹ 1,760$
तो, चार वर्षों के बाद प्राप्त कुल राशि $=2000+1760$ = ₹ 3,760
38. Answer: (C)

प्रारंभिक मिश्रण में दूध की मात्रा $=480 \times\{5 /(5+7)\}$
$=480 \times(5 / 12)=200$ लीटर
प्रारंभिक मिश्रण में पानी की मात्रा $=480 \times\{7 /(5+7)\}$ $=480 \times(7 / 12)=280$ लीटर
प्रश्न के अनुसार,
$\{(200+x) / 280\}=6 / 7$
या, $1400+7 x=1680$
या, $7 x=1680-1400$
या, $7 x=280$
या, $x=40$
39. Answer: (B)

माना कुल कार्य $=210$ इकाई $\{21$ और 10 का L.C.M $\}$
तब, अकेले 'P' की दक्षता $=(210 / 21)=10$ इकाई/दिन
'P' और 'Q' की एक साथ दक्षता = $(210 / 10)$
$=21$ युनिट/दिन
अत: अकेले ' Q ' की दक्षता $=21-10=11$ इकाई/दिन
अत: 'Q' द्वारा अकेले 15 दिनों में किया गया कार्य
$=11 \times 15=165$ इकाई
तो, कार्य का अंश पूरा हुआ $=(165 / 210)=(11 / 14)$
40. Answer: (D)

मान लीजिए कि बिंदु 'A' और 'B' के बीच की दूरी 'd' किमी है।
शांत जल में नाव की गति $=12$ किमी/घंटा
धारा की गति $=(12 / 3)=4$ किमी/घंटा
ATQ;
$\{\mathrm{d} /(12-4)\}+\{\mathrm{d} /(12+4)\}=22.5$
या, $(\mathrm{d} / 8)+(\mathrm{d} / 16)=22.5$
या, $2 d+d=360$
या, $d=120$
इसलिए, बिंदु 'A' और 'B' के बीच की दूरी 120 किमी है।
41. Answer: (B)

वर्गाकार भूखंड का परिमाप = 120 मीटर

माना वर्गाकार प्लाट की प्रत्येक भुजा की लंबाई 'a' मीटर है।
अतः, $4 a=120$
या, $a=30$
वर्गाकार भूखंड का क्षेत्रफल $=30 \times 30=900$ मी $^{2}$
आयताकार भूखंड का क्षेत्रफल $=1.60 \times 900$
$=1440$ मी $^{2}$
42. Answer: (D)
$19.98 \%$ of $999.998+\sqrt{ } 224.98=$ ?
$20 \%$ of $1000+\sqrt{ } 225 \sim ?$
$200+15$ ~ ?
? ~ 215
43. Answer: (D)
$(14.01)^{2}+(5.98)^{2}=?-19.98$
$(14)^{2}+(6)^{2} \sim ?-20$
$196+36+20 \sim$ ?
? ~ 252
44. Answer: (D)
$(1 / 2) \div(3 / 2) \div(4 / 12) \times(9 / 6)=(? / 2)$
$(1 / 2) \times(2 / 3) \times(12 / 4) \times(9 / 6)=(? / 2)$
$(3 / 2)=(? / 2)$
? = 3
45. Answer: (B)
$240 \div 15+112 \div 8=$ ?
? $=16+14$
? $=30$
46. Answer: (C)
$(380 \div 20-7) \times ?=420$
$(19-7) \times ?=420$
$12 \times ?=420$
? = (420/12)
? $=35$
47. Answer: (A)
$(1 / 5)+(2 / 15)+(5 / 7)=22 \times ?$
$\{(21+14+75) / 105\}=22 \times ?$
$(22 / 21)=22 \times ?$
? $=1 / 21$
48. Answer: (D)
$955-25 \%$ of $176+33266=$ ?
? $=955-0.25 \times 176+33266$
? $=955-44+33266$
? = 34177
49. Answer: (D)
$12 \%$ of $20 \%$ of $500+120=? \times 4$
$12+120=? \times 4$
? $=132 \div 4$
? = 33
50. Answer: (C)
$(18 \times 19)+26^{2}=? \times 2$
$342+26^{2}=? \times 2$
$342+676=? \times 2$
$1018 \div 2=$ ?
? = 509
51. Answer: (D)
$1086+7 \times 1=1093$
$1093+7 \times 3=1114$
$1114+7 \times 5=1149$
$1149+7 \times 7=1198$
$1198+7 \times 9=1261$
अत: 1197 के स्थान पर 1198 आना चाहिए
52. Answer: (B)
$120-4 \times 1=116$
$116-4 \times 3=104$
$104-4 \times 5=84$
$\mathbf{8 4 - 4 \times 7 = 5 6}$
$56-4 \times 9=20$
इसलिए 52 के स्थान पर 56 आना चाहिए।
53. Answer: (D)
$96 \times(3 / 2)=144$
$144 \times(3 / 2)=216$
$216 \times(3 / 2)=324$
$324 \times(3 / 2)=486$
$486 \times(3 / 2)=729$
अतः 320 के स्थान पर 324 आना चाहिए।
54. Answer: (C)

1 से:
$x^{2}-12 x=-32$
या, $x^{2}-12 x-32=0$
या, $x^{2}-8 x-4 x-32=0$
या, $x(x-8)-4(x-8)=0$
या, $(x-4)(x-8)=0$
अतः, $x=4$ or $x=8$
11 से:
$y^{2}+45=18 y$
या, $y^{2}-18 y+45=0$
या, $\mathrm{y}^{2}-15 \mathrm{y}-3 \mathrm{y}+45=0$
या, $y(y-15)-3(y-15)=0$
या, $(y-15)(y-3)=0$
अतः, $y=15$ या $y=3$

| x | संबंध | y |
| :---: | :---: | :---: |
| 4 | $>$ | 3 |
| 4 | $<$ | 15 |
| 8 | $>$ | 3 |
| 8 | $<$ | 15 |

इसलिए संबंध स्थापित नहीं किया जा सकता है।
55. Answer: (D)

1 से:
$4 x^{2}+24 x+35=0$
$4 x^{2}+14 x+10 x+35=0$
$2 x(2 x+7)+5(2 x+7)=0$
$(2 x+5)(2 x+7)=0$
$x=-5 / 2,-7 / 2$
11 से:
$8 y^{2}+26 y+15=0$
$8 y^{2}+20 y+6 y+15=0$
$4 y(2 y+5)+3(2 y+5)=0$
$(4 y+3)(2 y+5)=0$
$y=-3 / 4,-5 / 2$

| $x$ | सम्बन्ध | $y$ |
| :---: | :---: | :---: |
| $-5 / 2$ | $<$ | $-3 / 4$ |
| $-5 / 2$ | $=$ | $-5 / 2$ |
| $-7 / 2$ | $<$ | $-3 / 4$ |
| $-7 / 2$ | $<$ | $-5 / 2$ |

अतः, $x \leq y$
निर्देश (56-60): केवल हेयर जेल पसंद करने वालों की संख्या
= 110-45 = 65
तो, केवल हेयर क्रीम पसंद करने वालों की संख्या
$=65+23=88$
हेयर जेल और हेयर क्रीम दोनों पसंद करने वालों की संख्या $=45$
उन लोगों की संख्या जिन्हें न तो हेयर क्रीम और न ही हेयर
जेल पसंद है $=27$
तो, सर्वेक्षण किए गए लोगों की कुल संख्या
$=65+88+45+27=225$

56. Answer: (D)

सर्वेक्षण किए गए लोगों की कुल संख्या $=225$
57. Answer: (B)

केवल हेयर क्रीम पसंद करने वाली महिलाओं की संख्या $=88 \times(5 / 8)=55$
58. Answer: (D)

आवश्यक योग $=88+65=153$
59. Answer: (A)

आवश्यक प्रतिशत $=(27 / 45) \times 100=60 \%$
60. Answer: (B)

आवश्यक अंतर $=110-88=22$
निर्देश (61-65): दुकान 'A' द्वारा बेची गई लिली की संख्या
$=5000-1500-1200=2300$
इसलिए,

| दुकान | बेचे गए <br> फूलों की <br> कुल <br> संख्या | बेचे गए <br> कमल <br> की <br> संख्या | बेचे गए <br> गुलाब की <br> संख्या | बेचे गए <br> लिली <br> की <br> संख्या |
| :---: | :---: | :---: | :---: | :---: |
| A | 5000 | 1500 | 1200 | 2300 |
| B | 7000 | 2500 | 2300 | 2200 |
| C | 9000 | 4000 | 2500 | 2500 |
| D | 6000 | 2800 | 2100 | 1100 |
| E | 10000 | 6000 | 3000 | 1000 |

61. Answer: (C)

दुकान 'F' द्वारा बेचे गए गुलाबों की संख्या
$=(3 / 5) \times 2 \times 1250=(3 / 5) \times 2500=1500$
आवश्यक अंतर $=1500-1200=300$
62. Answer: (A)

आवश्यक अंतर $=2300-2200=100$
63. Answer: (B)

अभीष्ट अनुपात $=4000: 2500: 2500=8: 5: 5$
64. Answer: (D)

आवश्यक प्रतिशत $=\{(6000) /(1500+2500+4000)\}$ $\times 100=(6000 / 8000) \times 100=0.75 \times 100=75 \%$
65. Answer: (C)

दुकान 'Q' द्वारा बेची गई लिली की संख्या
$=1.616 \times 2500=4040$

Reasoning Aptitude
निर्देश (66-70): अंतिम व्यवस्था है:

| स्थितियां | डिब्बे |
| :---: | :---: |
| 9 | N3 |
| 8 | N6 |
| 7 | N9 |
| 6 | N1 |
| 5 | N5 |
| 4 | N2 |
| 3 | N7 |
| 2 | N8 |
| 1 | N4 |

66. Answer: (D)

डिब्बा N6 को छोड़कर सभी अभाज्य संख्या वाले डिब्बे हैं।
67. Answer: (D)

डिब्बा N4 के नीचे कोई डिब्बा नहीं रखा गया है।
68. Answer: (B)

डिब्बा N5, डिब्बा N7 के ऊपर दो डिब्बे रखे हैं।
69. Answer: (A)

डिब्बा N6, 8वाँ डिब्बा एक सही कथन है।
70. Answer: (C)

डिब्बा N5 डिब्बा N1 के ठीक नीचे रखा गया है।
निर्देश (71-75): अंतिम व्यवस्था है:

| H | B | F | A | E | G | D | C |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

71. Answer: (D)
$F$ और $E$ के मध्य एक व्यक्ति बैठा है।
72. Answer: (B)
$D$ पंक्ति के दायें छोर से दूसरे स्थान पर बैठा है।
73. Answer: (A)

D, C के ठीक बायें बैठा है।
74. Answer: (D)

उपरोक्त विकल्पों में, पहला व्यक्ति 'F-H' को छोड़कर दूसरे व्यक्ति के बाएं से दूसरे स्थान पर बैठा है।
75. Answer: (D)

A, F के ठीक दायें है।
निर्देश (76-80): अंतिम व्यवस्था इस प्रकार है:

| महीना | व्यक्ति | फल |
| :---: | :---: | :---: |
| जून | अनुपम | अमरुद |
| जुलाई | सूरज | आम |
| अगस्त | शौर्य | लीची |
| सितम्बर | राम | सेब |
| अक्ट्बर | श्रेया | अंगरर |
| नवम्बर | राधिका | केला |
| दिसम्बर | रोहित | कीवी |

76. Answer: (D)

अनुपम का जन्म जून में हुआ था और उन्हें अमरूद पसंद है।
77. Answer: (C)

श्रेया को अंगूर पसंद हैं।
अतः, अंगूर पसंद करने वाले व्यक्ति से पहले चार व्यक्तियों का जन्म हुआ।
78. Answer: (C)

रोहित को कीवी पसंद है और उसका जन्म दिसंबर में हुआ था।
79. Answer: (B)

अनुपम और राधिका के बीच चार लोगों का जन्म हुआ।
80. Answer: (B)

विकल्प (a): सही (अनुपम जून में पैदा हुआ था और अमरूद पसंद करता है।)
विकल्प (b): गलत (शौर्य का जन्म अगस्त में हुआ था।)
विकल्प (c): सही (शौर्य और रोहित के बीच तीन लोगों का जन्म हुआ।)
विकल्प (d): सही (रोहित सबसे छोटा है।)
निर्देश (81-85): अंतिम व्यवस्था है:

(in)
81. Answer: (C)
$A, D$ के विपरीत बैठा है।
82. Answer: ( $B$ )
$B$ के बायें से गिनने पर $A$ और $B$ के मध्य तीन व्यक्ति बैठे हैं।
83. Answer: (B)
$D, E$ के दायें से दूसरे स्थान पर बैठा है।
84. Answer: (D)

C, D के बायें से पांचवें स्थान पर है।
85. Answer: (A)

यदि सभी व्यक्तियों को दक्षिणावर्त दिशा में $A$ के स्थान से शुरू करते हुए वर्णानुक्रम में व्यवस्थित किया जाता है, तो दो व्यक्ति ( $C$ और $D$ ) एक ही स्थान पर रहते हैं ( $A$ को छोड़कर)।
निर्देश (86-87):

| Word | help | order | live | beyond |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Code | phk | rde | vlp | ynd |  |
| Word | hold | control | level | phone | dream |
| Code | dhl | ort | evl | npe | amd |

86. Answer: (C)
"hold" को "dhl" के रूप में कोडित किया गया है।
87. Answer: (C)
"phone" के लिए कोड "npe" है।
88. Answer: (D)

दिया गया:
AB4I5D6G87E99Q7I23Y52U7IN2 5
पाँच अक्षर $(I, E, Q, Y$ और $U)$ हैं जिनके ठीक बाद एक विषम संख्या है।
89. Answer: (C)

दिया गया:
AB4I5D6G87E99Q7I23Y52U7IN2 5
पाँच संख्याएँ $(4,7,7,2$ और 7) हैं जिनके ठीक बाद एक स्वर है।
90. Answer: (C) दिया गया:

AB4I5D6G87E99Q7I23Y52U7IN2 5
$4,6,8,7,5$ और 2 के ठीक पहले एक व्यंजन है। योग $=(4+6+8+7+5+2)=32$
91. Answer: (A) दिया गया:

AB4I5D6G87E99Q7123Y52U7IN2 5
दायें छोर से आठवां अंक $=7$
' 7 ' के दायीं ओर सातवां तत्व $U$ है।
92. Answer: (C)

निम्नलिखित वेन आरेख दिए गए कथनों से बनाया जा सकता है,


उपरोक्त वेन आरेख से केवल निष्कर्ष । और III अनुसरण करते हैं।
93. Answer: (B)

निम्नलिखित आकृति बनाई जा सकती है:


निम्नलिखित आकृति से, निष्कर्ष । और निष्कर्ष ॥ दोनों अनुसरण करते हैं।
94. Answer: (A) दिया गया है: FACTORISATION

शब्द 'FACTORISATION' के दूसरे, छठे, सातवें, 12 वें और 13 वें अक्षर क्रमशः $A, R, I, O$ और $N$ हैं।
दिए गए अक्ष्षों का उपयोग करके छह अर्थपूर्ण शब्द, RAIN, IRON, RANI, NORI, ROAN और NOIR बनाए जा सकते हैं।
95. Answer: (A) दिया गया शब्द:

POWERFULLY
पहला, दूसरा, पांचवां और सातवां अक्षर 'P', 'O', R', 'U' हैं। बनने वाला शब्द 'POUR' होगा।
बाएं छोर से शब्द का दूसरा अक्षर 'POUR' है, ' $O$ ' है।
96. Answer: ( $B$ ) दिया गया:
$A>B \geq C ? D=E<F$
विकल्प (a): '?' को > से बदलना
$A>B \geq C>D=E<F$
यहाँ, $A>D$ सत्य है लेकिन $F>C$ सत्य नहीं है क्योंकि $F$ और $C$ के बीच संबंध निर्धारित नहीं किया जा सकता है।
विकल्प (b): '?' के स्थान पर =

A $>\mathrm{B} \geq \mathrm{C}=\mathrm{D}=\mathrm{E}<\mathrm{F}$
यहाँ, $A>D$ सत्य है और $F>C$ सत्य है।
विकल्प (c): '?' को . के साथ बदलना
$A>B \geq C \leq D=E<F$
यहाँ, $A>D$ सत्य नहीं है क्योंकि $A$ और $D$ के बीच संबंध निर्धारित नहीं किया जा सकता है और $F>C$ सत्य है।
विकल्प (d): '?' को . के साथ बदलना
$A>B \geq C \geq D=E<F$
यहाँ, $A>D$ सत्य है लेकिन $F>C$ सत्य नहीं है क्योंकि $F$ और $C$ के बीच संबंध निर्धारित नहीं किया जा सकता है।
97. Answer: (B) दिया गया है:

T_U__W__V
विकल्प (a):
$T>U=W \geq V$
$T \geq V$ असत्य है।
विकल्प (b):
$T \geq U=W \geq V$
$\mathrm{T} \geq \mathrm{V}$ सत्य है।
विकल्प (c):
$\mathrm{T} \geq \mathrm{U}=\mathrm{W} \leq \mathrm{V}$
$T \geq \mathrm{V}$ असत्य है क्योंकि T और V के बीच संबंध निर्धारित नहीं किया जा सकता है।
विकल्प (d):
$\mathrm{T} \leq \mathrm{U}=\mathrm{W} \geq \mathrm{V}$
$\mathrm{T} \geq \mathrm{V}$ असत्य है क्योंकि T और V के बीच संबंध निर्धारित नहीं किया जा सकता है।
निर्देश (98-99): उपरोक्त जानकारी से हमें निम्नलिखित आकृति प्राप्त होती है:

98. Answer: (C)

कार C8, कार C1 के उत्तर-पश्चिम में है।
99. Answer: (D)

विकल्प $d$ को छोड़कर दूसरी कार पहली कार के उत्तरपूर्व में है।
100. Answer: (C)

दिया गया कथन: $Q=C>R \geq P \geq D ; M \geq Z>P=S$ संयोजन करने पर, हम प्राप्त करते हैं,
$M \geq Z>P=S \leq R<C=Q ; M \geq Z>P=S \geq D$ निष्कर्ष:
I. $S>D$ : असत्य (जैसे, $M \geq Z>P=S \geq D$, अतः, $S \geq$ D)
II. $M \geq C$ : असत्य (जैसे, $M \geq Z>P=S \leq R<C$,

इसलिए, $C$ और $M$ के बीच संबंध निर्धारित नहीं किया जा सकता है)
III. $D<Z$ : सत्य (जैसे, $M \geq Z>P=S \geq D$, अतः, $D<$ Z)


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