IBPS BANK P.O/M.T - CWE

MOCK TEST - II

ENGLISH LANGUAGE

Directions (1-10): *Read the following passage carefully and answer the questions. Certain words / phrases are given in* **bold** *to help you locate them while answering some of the questions.*

Inequality is at the top of the agenda around the world. Hilary Clinton, the leading Democratic candidate to succeed Barack Obama as president of the United States, made inequality the centerpiece of a major campaign speech.

Economists at the IMF too have recently released a study assessing the causes and consequences of rising inequality. Its authors reckon that while inequality could cause all sorts of problems, governments should be especially concerned about its effects on growth. They estimate that a one percentage point increase in the income share of the top 20% will drag down growth by 0.08% percentage points over five years, while a rise in the income share of the bottom 20% actually boosts growth. But how does inequality affect economic growth rates?. Economists say that some inequality is needed to propel growth. Without the **carrot** of large financial rewards, risky entrepreneurship and innovation would grind to a halt. In 1975, an American economist, argued that societies cannot have both perfect equality and perfect efficiency, but must choose how much of one to sacrifice for the other. While most economists continue to hold that view, the recent rise in inequality has prompted a new look at its economic costs. Inequality could impair growth if those with low incomes suffer poor health and low productivity as a result, or if, as evidence suggests, the poor struggle to finance investments in education, inequality could also threaten public confidence in growth-boosting capitalist strategies like **free** trade.

More recent work suggests that inequality could lead to economic or financial instability. The governor of the Reserve Bank of India argued that governments often respond to inequality by easing the flow of credit to poorer households, however, American households borrowed heavily prior to the crisis to prop up their consumption. But for this rise in household debt, consumption would have stagnated as a result of poor wage growth. Crafting a response to rising inequality is therefore tricky, he says. Some of the negative impact of inequality on growth can be blamed on poor government policies in highly unequal countries. In Latin America, for instance, populist pressure for excessive state economic control seems to shorten the average duration of growth **spells**. Yet in moderation, redistribution seems to **benign** effects-perhaps by reducing dependence on risky borrowing among poorer households. Over the past generation or two inequality has risen most in places where progressive policies, such as high top tax-rates, have been weakened. A little more redistribution now might improve the quality and quantity of economic-growth and reduce the demand for more aggressive state interventions later.

1. Choose the word which is most nearly the same in meaning to the word **CARROT** given in bold as used in the passage.
   (1) nutrient
   (2) threat
   (3) argument
   (4) incentive
   (5) satisfaction

2. Choose the word which is most nearly the same in meaning to the word **SPELLS** given in bold as used in the passage.
   (1) Curses
   (2) Predictions
   (3) Periods
   (4) Charms
   (5) Results

3. Which of the following best describes the opinion of experts regarding inequality?
   (1) The impact of inequality on growth is exaggerated by governments.
   (2) Inequality is a complex phenomenon and requires careful handling.

(3) Governments should aim at achieving perfect equality.

(4) State interventions such as redistribution cannot reduce inequality.

(5) Easing the flow of credit to poor households is the way to reduce inequality.

4. According to the passage, which of the following is / are the possible impact(s) of inequality?

(A) It affects economics stability of a country.

(B) The public may object to policies like free trade.

(C) It discourage entrepreneur ship and innovation.

(1) Only (A)

(2) Only (B)

(3) All (A), (B) and (C)

(4) Only (A) and (B)

(5) Only (B) and (C)

5. What do the examples of Hilary Clinton and IMF economists cited in the passage convey?

(1) Politicians misrepresent research depending on the message they want to deliver.

(2) Americans are not concerned with the impact of growing inequality.

(3) Social issues are focused on prior to elections but not implemented thereafter.

(4) The issue of inequality is getting a lot of attention at present.

(5) America and the IMF disagree on the measures to be adopted to handle inequality.

6. What is the author's view regarding policies such as high top tax- rates?

(1) These are pointless as they drag down growth.

(2) He is in favour of these as research shows they have a positive impact.

(3) He believes they promote risky lending practice among the poor.

(4) These are unfair as they impact less than 20 percent of the population.

(5) Other than those given as options.

7. Which of the following is **TRUE** in the context of the passage?

(1) Governments and central bankers are in agreement on the measures needed to reduce inequality.

(2) India and Latin America have the highest rates of inequality.

(3) Government policies of redistribution of wealth serve no purpose whatsoever.

(4) Inequality is on the rise on account of the partial policies of the IMF.

(5) None of the given options is true in the context of the passage.

8. Choose the word which is most nearly the opposite in meaning to the word **BENIGN** given in bold as used in the passage.

(1) Mild　　　　(2) Gentle

(3) Selfish　　　(4) Friendly

(5) Nasty

9. Which of the following is the central idea of the passage?

(1) Inequality impacts growth and cannot be eliminated.

(2) Inequality is growing in developed countries not just developing ones.

(3) Those in positions of power are unconcerned about the effects of inequality.

(4) Economists in developed and developing countries disagree about managing inequality.

(5) The IMF should take the lead and define acceptable norms of inequality.

10. Choose the word which is most nearly the opposite in meaning to the word **FREE** given in bold as used in the passage.

(1) Restricted　　(2) Expensive

(3) Independent　(4) Confidential

(5) Boundless

Directions (11 -15) : *Rearrange the given six sentence / group of sentence (A), (B), (C), (D), (E) and (F) in a proper sequence so as to form a meaningful paragraph and then answer the given questions.*

(A) These nuggets contain words of caution because many young middle-class Chinese who gear up during the nation's glittering boom years, are suddenly confronting the

shadow of an economic slowdown and even hints of austerity.

(B) Titles "Guide on Safe Passage Through the Economics Crisis", it is aimed at young Chinese urban professionals.

(C) Recently, an advice column has been circulating widely on China's most popular social media phone app.

(D) Its nuggets of wisdom include "Work hard at your job so you are the last to be laid off and "In an economic crisis, liquidity is the number one priority".

(E) By austerity they mean cancelling vacations and delaying weddings and even selling recently purchased apartments to have cash on hand.

(F) These frantic measures are prompting the leaders to take appropriate actions to bring the situation under control.

11. Which of the following should be the **FOURTH** sentence after rearrangement?
    (1) A   (2) B
    (3) C   (4) F
    (5) D

12. Which of the following should be the **SECOND** sentence after rearrangement?
    (1) A   (2) B
    (3) F   (4) D
    (5) E

13. Which of the following should be the **SIXTH (LAST)** sentence after rearrangement?
    (1) E   (2) D
    (3) A   (4) B
    (5) F

14. Which of the following should be the **FIFTH** sentence after rearrangement?
    (1) A   (2) D
    (3) E   (4) F
    (5) C

15. Which of the following should be the **FIRST** sentence after rearrangement?
    (1) A   (2) F
    (3) B   (4) C
    (5) E

Directions (16 -20): *Each sentence below has two blanks, each blank indicating that something has been omitted. Choose the words that best fit the meaning of the sentence as a whole.*

16. The actress is _____ that she will be spending her birthday with her husband and other _____ of the family.
    (1) Ecstatic, elements
    (2) Abject, sources
    (3) Confused, people
    (4) Mundane, partners
    (5) Thrilled, members

17. Steep hills and low rise traditional buildings that once _____ the mosque have in recent years given _____ to shopping malls and luxury hotels.
    (1) Befell, up
    (2) Encased, space
    (3) Beautified, forward
    (4) Hid, liberty
    (5) Surrounded, way

18. Scientific research has now _____ that a fish-rich diet can help _____ depressions.
    (1) Established, react
    (2) Confirmed, curb
    (3) Released, combat
    (4) Revealed, accustom
    (5) Deepened, limit

19. The actress who put on a lot of weight to effectively _____ the character she played in her film, looks like a _____ heroine now.
    (1) Depict, conventional
    (2) Pass, regular
    (3) Portray, more
    (4) Revolve, usual
    (5) Represent, absolute

20. Even as he _____ himself for his film debut, the comedian is _____ getting a taste of how some friendship in showbiz come with a price tag.
    (1) Prepares, favourably
    (2) Readies, allegedly
    (3) Locates, reportedly
    (4) Shows, apparently
    (5) Apportions, supposedly

Directions (21 -25) : In the following questions, read each sentence to find out whether there is any grammatical error in it. The error, if any, will be in one part of the sentence. Select the part with the error as your answer. If there is no error, select 'No error' as your answer. Ignore the error of punctuation, If any.

21. The pledges that countries (1) / are making to battle climate change (2) / will still result in the world (3)/heating up by more than 6 degree Celsius. (4) / No error (5)

22. When it come to helping (1) / one another, it turns out (2) / that some fish are better (3) / at it than previously thought. (4) / No error (5)

23. Every child in our (1) / country has the right (2) / to acquire quality (3) / primary and secondary education. (4) / No error (5)

24. The club members are (1) / socially responsible and (2) / take part in (3) / variety volunteering activities. (4) / No error (5)

25. On Sunday night, (1) / a rare astronomical phenomenon will have produce (2) / a moon that will appear slightly bigger (3) / than usual and have a reddish hue. (4) / No error (5)

Directions (26 - 30): *In the following passage, there are blanks, each of which has been numbered. Against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.*

'A (26) affecting the quality of primary education appears to be (27) levels of teacher motivation. In 2002-2003, 25% of primary school teachers in rural India were absent on any given day. The impact of absenteeism is (28) by the fact that the average primary school in India has a workforce of no more than three teachers. The obvious reason, remuneration, does not appear to be a (29). In fact, both education experts and ordinary citizens (30) that government employed school teachers are paid relatively well. UNESCO surveys from as early as 2004 indicated that the annual statutory salary of primary school teachers in India with 15 years' experience was more than $14,000.

26. (1) important   (2) tip
     (3) pointless   (4) key
     (5) seriously

27. (1) high   (2) pointed
     (3) acute   (4) low
     (5) beneath

28. (1) Exacerbated   (2) married
     (3) stated   (4) witnessed
     (5) portrayed

29. (1) presence   (2) forcing
     (3) driver   (4) reckon
     (5) case

30. (1) together   (2) says
     (3) argue   (4) couple
     (5) impart

QUANTITATIVE APTITUDE

31. The time taken by a boat to travel a distance downstream is half the time taken by it to travel the same distance upstream. What is the speed of the boat downstream if it travels 7.5 km upstream in 1 hour 30 minutes? (in km /h)
   (1) 7.5   (2) 5
   (3) 9   (4) 10
   (5) None of these

Directions (32 - 36): *In these questions, two equations numbered I and II are given. You have to solve both the equations and select the appropriate option.*

32.   I. $x^2 = 144$

     II. $y^2 = 24y + 144 = 0$

   (1) $x \leq y$

   (2) $x \geq y$

   (3) Relationship between x and y cannot be determined

   (4) $x < y$

   (5) $x > y$

33. I. $2x^2 - 9x + 10 = 0$

     II. $2y^2 - 13y + 20 = 0$

   (1) $x \leq y$

   (2) $x \geq y$

(3) Relationship between x and y cannot be determined

(4) $x < y$

(5) $x > y$

34. I. $2x^2 + 15x + 27 = 0$

II. $2y^2 + 7y + 6 = 0$

(1) $x \leq y$

(2) $x \geq y$

(3) Relationship between x and y cannot be determined

(4) $x < y$

(5) $x > y$

35. I. $3x^2 - 13x + 12 = 0$

II. $3y^2 - 13y + 14 = 0$

(1) $x \leq y$

(2) $x \geq y$

(3) Relationship between x and y cannot be determined

(4) $x < y$

(5) $x > y$

36. I. $5x^2 + 8x + 3 = 0$

II. $3y^2 + 7y + 4 = 0$

(1) $x \leq y$

(2) $x \geq y$

(3) Relationship between x and y cannot be determined

(4) $x < y$

(5) $x > y$

Directions (37 - 41): *What **approximate** value will come in place of the question mark (?) in the following questions ? (You are not expected to calculate the exact value).*

37. $1559.95 - 7.99 \times 24.96 - ?^2 = 1154$

(1) 14   (2) 24

(3) 32   (4) 18

(5) 8

38. $1599 \div 39.99 + \dfrac{4}{5} \times 2449 - 120.05 = ?$

(1) 1680   (2) 1940

(3) 1640   (4) 1880

(5) 1780

39. $1576 \div 45.02 + 23.99 \times \sqrt{255} = ?$

(1) 340   (2) 420

(3) 380   (4) 460

(5) 360

40. $? + 30.01\% \text{ of } 651 \div 25.05\% \text{ of } 59.98 = 135$

(1) 68

(2) 140

(3) 122

(4) 78

(5) 128.5

41. $3899 \div 11.99 - 2379 \div 13.97 = ?$

(1) 125   (2) 250

(3) 155   (4) 135

(5) 225

42. 'A' gave 25% of an amount to 'B'. from the money B got, he spent 30% on a dinner. Out of the remaining amount, the respective ratio between the amount B kept as savings and the amount he spent on buying a book is 5 : 2. If B bought the book for Rs. 460. how much money did A have in the beginning?

(1) Rs. 12600   (2) Rs. 9200

(3) Rs. 12000   (4) Rs. 9000

(5) Rs. 8000

43. The respective ratio of the sums invested for 2 years each, in scheme A offering 20% per annum compound interest (compounded annually) and in Scheme B offering 9% p.a. simple interest is 1 : 3. Difference between the interests earned from both the schemes is Rs. 12000. How much was invested in scheme A?

(1) Rs. 10500   (2) Rs. 15000

(3) Rs. 12000   (4) Rs. 12500

(5) Rs. 10000

44. A bag contains 4 red, 5 yellow and 6 pink balls. Two balls are drawn at random. What is the probability that none of the balls drawn are yellow in colour?

(1) $\dfrac{1}{7}$ (2) $\dfrac{3}{7}$

(3) $\dfrac{2}{7}$ (4) $\dfrac{5}{14}$

(5) $\dfrac{9}{14}$

45. 18 men can complete a project in 30 days and 16 women can complete the same project in 36 days. 15 men start working and after 9 days they are replaced by 18 women. In how many days will 18 women complete the remaining work?

(1) 20   (2) 30
(3) 26   (4) 28
(5) 24

Directions (46 - 50) : *What will come in place of the questions mark ?)in the following number series?*

46. 155 151 144 132 113 ?
(1) 89   (2) 71
(3) 85   (4) 92
(5) 60

47. 18 18 24 48 108 ?
(1) 254   (2) 228
(3) 212   (4) 176
(5) 194

48. 9 10.8 14.4 21.6 ? 64.8
(1) 36   (2) 44
(3) 34   (4) 41.8
(5) 37.6

49. 6 5 8 21 80 ?
(1) 268   (2) 192
(3) 255   (4) 364
(5) 395

50. 13 6 5 6 10 ?
(1) 19   (2) 25
(3) 17.5   (4) 28
(5) 22.5

51. A trader has 600 kgs of rice, a part of which he sells at 15% profit and the remaining quantity at 20% loss. On the whole, he incurs an overall loss of 6%. What is the quantity of rice he sold at 20% loss?
(1) 250 kgs
(2) 320 kgs
(3) 420 kgs
(4) 360 kgs
(5) 480 kgs

52. A vessel contains a mixture of Grape, Pineapple and Banana juices in the respective ratio of 4 : 6 : 5. 15 litres of this mixture is taken out and 8 litres of grape juice and 2 litres of pineapple juice is added to the vessel. If the resultant quantity of grape juice is 10 litres less than the resultant quantity of pineapple juice, what was the initial quantity of mixture in the vessel? (in litres)
(1) 120   (2) 150
(3) 105   (4) 135
(5) 90

53. 'B' is 3 years older than 'A' and 'B' is also 3 years younger than 'C'. 3 years hence, the respective ratio between the ages of A and C will be 4 : 5. What is the sum of the present ages of A, B and C?
(1) 48 years   (2) 56 years
(3) 63 years   (4) 84 years
(5) 72 years

54. If the volume and curved surface area of a cylinder are 616 m^3 and 352 m^2 respectively, what is the total surface area of the cylinder (in m^2)
(1) 429   (2) 419
(3) 435   (4) 421
(5) 417

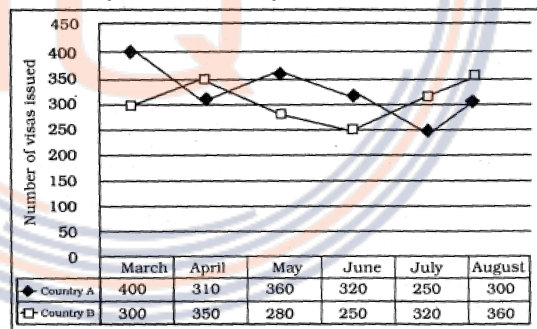**Directions (55 - 59):** *Study the table and answer the given questions.*

Data related to candidates appeared and qualified from State 'X' in a competitive exam during 5 years.

Years	No. of appeared candidates	% of appeared candidates who qualified	Respective ratio of number of qualified male and number of qualified female candidates
2006	700	--	3 : 2
2007	--	--	5 : 3
2008	480	60%	--
2009	--	42%	9 : 5
2010	900	64%	--

55. In 2010, if the number of female qualified candidates was 176, what was the respective ratio of number of male qualified candidates and number of female qualified candidates?
(1) 25 : 11   (2) 5 : 4
(3) 25 : 11   (4) 21 : 16
(5) 17 : 11

56. The number of appeared candidates increased by 40% from 2006 to 2011. If 25% of the appeared, candidates qualified in 2011, what was the number of qualified candidates in 2011?
(1) 240   (2) 225
(3) 255   (4) 245
(5) 230

57. In 2007, the respective ratio of number of appeared candidates to the qualified candidates was 5 : 4. Number of female qualified candidates constitutes what percent of number of appeared candidates in the same year?
(1) 20   (2) 25
(3) 30   (4) 15
(5) 40

58. In 2009, if the difference between number of male qualified candidates and female qualified candidates was 72, what was the number of appeared candidates in 2009?
(1) 800   (2) 900
(3) 850   (4) 600
(5) 950

59. If the average number of qualified candidates in 2006 and 2008 was 249, what per cent of appeared candidates qualified in the competitive exam in 2006?
(1) 40   (2) 30
(3) 20   (4) 35
(5) 25

60. To reach point B from point A, at 4pm, Sara will have to travel at an average speed of 18 kmph. She will reach point B at 3 pm if she travels at an average speed of 24 kmph. At what average speed should Sara travel to reach point B at 2 pm?
(1) 36 kmph   (2) 28 kmph
(3) 25 kmph   (4) 30 kmph
(5) 32 kmph

Directions 61 - 65): *Read the graph and answer the given questions.*

Number of visas issued by Country 'XYZ' for Country A and Country B in 6 different months

	March	April	May	June	July	August
Country A	400	310	360	320	250	300
Country B	300	350	280	250	320	360

61. What is the difference between the total number of visas issued for Country A and Country B together in April and the total number of visas issued for both the countries together in June?
   (1) 90   (2) 70
   (3) 110   (4) 100
   (5) 80

62. What is the average number of visas issued for Country B in March, May, July and August?
   (1) 315   (2) 310
   (3) 320   (4) 335
   (5) 325

63. The number of visas issued for Country A in March decreased by 20% from the previous month. What is the respective ratio between the number of visas issued for Country A in February and the number of visas issued for the same country in May?
   (1) 25 : 13   (2) 25 : 18
   (3) 26 : 13   (4) 24 : 13
   (5) 26 : 15

64. The number of visas issued for Country A decreased by what per cent from May to July?
   (1) $35\dfrac{1}{3}$ (2) 33
   (3) $30\dfrac{5}{9}$ (4) $32\dfrac{2}{3}$
   (5) $32\dfrac{4}{9}$

65. The number of visas issued for Country B in March is what per cent less than the number of visas issued for Country A in June?
   (1) 8.5   (2) 7.75
   (3) 4.25   (4) 6.25
   (5) 5.75

REASONING

Directions (66-68): *Study the following information carefully and answer the questions given below:*

Each of the six persons P, Q, R, S, T and U has lived in India for a different number of days. S has stayed for more number of days than R but less than T. P has stayed for more number of days than only U. T has not stayed for the most number of days. The one stayed for the second least number of days stayed for 14 days in India. The one who stayed for second highest number of days stayed for 47 days, S stayed for 15 days less than T.

66. For how many days did R possibly stay in India?
   (1) 56   (2) 41
   (3) 33   (4) 25
   (5) 11

67. Who amongst the following stayed for the second highest number of days?
   (1) U   (2) T
   (3) Q   (4) R
   (5) P

68. If the number of days for which Q stayed in India is less than 60 and is an even number which is divisible by 3 but not by 4, for how many days did Q stay in India?
   (1) 54   (2) 42
   (3) 56   (4) 48
   (5) 30

Directions (69 - 70): *Study the following information carefully and answer the questions given below:*

Q is the sister of T. T is the mother of D. T has only one son. D is the brother of J. J is married to M. Y is the daughter of M.

69. How is J related to Q?
   (1) Son
   (2) Cannot be determined
   (3) Daughter
   (4) Niece
   (5) Nephew

70. How is Y related to T?
   (1) Daughter
   (2) Daughter-in-law
   (3) Cannot be determined
   (4) Niece
   (5) Granddaughter

Directions (71 - 75): *In each of the following questions, relationship between the different elements is shown in the statements. The statements are followed by two Conclusions numbered I and II. Study the Conclusions based on the given statements and mark the appropriate answer :*

Give answer (1) if both the Conclusion I and Conclusion II are true
Give answer (2) if either Conclusion I or Conclusion II is true
Give answer (3) if neither Conclusion I nor Conclusion II is true
Give answer (4) if only Conclusion I is true
Give answer (5) if only Conclusion II is true

(71 -72) :Statements :
$C < R > E \leq A = M$;
$Y \geq E$

71. **Conclusions:**
   I. $M \geq R$
   II. $Y > A$

72. **Conclusions:**
   I. $C = Y$
   II. $C < Y$

(73-74): Statements:
$B < L \leq A = M \geq E \geq S$:
$L \geq W \geq J$

73. **Conclusions:**
   I. $L < S$
   II. $E > W$

74. **Conclusions:**
   I. $J < M$
   II. $J = M$

75. **Statement :**
$C > H \geq O \geq K = E < D$
Conclusions:
   I. $O > D$
   II. $E < C$

Directions (76-80): Study the following information carefully and answer the questions given below:

Ten persons are sitting in two parallel rows containing five people each, in such a way that there is equal distance between adjacent persons. In row-

1, A, B, C, D and E are seated (but not necessarily in the same order) and all of them are facing north. In row-2, L, M, N, O and P are seated (but not necessarily in the same order) and all of them are facing south. Therefore, in the given seating arrangement each member seated in a row faces another member of the other row.

B sits second to the right of D. The person facing B sits to the immediate left of N. L sits second to the right of N. Only two persons sit between L and P. E is not an immediate neighbour of D. O does not face E. C neither faces N nor sits at an extreme end of the line.

76. Which of the following statements is TRUE regarding O?
   (1) L sits to the immediate left of O
   (2) Only three persons sit between P and O.
   (3) O sits exactly in the middle of the row.
   (4) O faces one of the immediate neighbours of B.
   (5) None of the given statements is true

77. Who amongst the following is facing A?
   (1) L   (2) M
   (3) O   (4) P
   (5) N

78. Who amongst the following is facing M?
   (1) E   (2) A
   (3) D   (4) B
   (5) C

79. Four of the following five are alike in a certain way based on the given arrangement and hence form a group. Which is the one that does not belong to the group?
   (1) NO   (2) Œ
   (3) AB   (4) PO
   (5) ML

80. What is the position of C with respect to B?
   (1) Second to the left
   (2) Third to the left
   (3) Immediate left
   (4) Immediate right
   (5) Second to the right

Directions (81-85): *In each of the following questions, two / three statements followed by two Conclusions numbered I and II have been given. You have to take the given statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given Conclusions*

logically follows from the given statements disregarding commonly facts.

Give answer (1) if both the Conclusion I and Conclusion II follow
Give answer (2) if either Conclusion I or Conclusion II follows
Give answer (3) if neither Conclusion I nor Conclusion II follows
Give answer (4) if only Conclusion I follows
Give answer (5) if only Conclusion II follows

(81-82): Statements:
No ground is a soil.
All soils are basins.
Some basins are deltas.

81. **Conclusions:**
I. No delta is a soil.
II. Some grounds being deltas is a possibility.

82. **Conclusions:**
I. At least some soils are deltas.
II. All basins are soils.

83. **Statements:**
All policies are decisions.
No decision is a verdict.
No verdict is a result.
Conclusions:
I. All results being policies is a possibility.
II. No verdict is a policy.

84. **Statements:**
Some calculators are machines.
No calculator is a phone.
Conclusions:
I. Some machines are phones.
II. No machine is a phone.

85. **Statements:**
All seasons are winters.
Some winters are autumns.
All autumns are falls.
Conclusions:
I. At least some falls are winters.
II. At least some autumns are seasons.

Directions (86-90): *Study the following information carefully and answer the questions given below:*

In a certain code language,

'always follow your passion' is written as 'ke ag mo jp'.

'great passion for music' is written as 'mo bu sc nd'.

'music always on mind' is written as 'fi sc ag lw'.

'follow music on twitter' is written as 'ty jp fi sc'.

(All codes are two-letter codes only)

86. What is the code for 'follow' in the given code language
(1) ke
(2) jp
(3) other than those given as options
(4) fi
(5) sc

87. What is the code for 'mind' in the given code language?
(1) bu   (2) ag
(3) lw   (4) ke
(5) ty

88. In the given code language, what does the code 'nd' stand for?
(1) Either 'for' or 'great'
(2) Music
(3) Mind
(4) Always
(5) Either 'music' or 'on'

89. If 'music always help' is coded as 'ag hr sc in the given code language, then what is the code for 'help your twitter'?
(1) ke ty bu   (2) hr tw ag
(3) hr ke sc   (4) ty ke hr
(5) bu ty hr

90. What may be the possible code for 'divine passion' in the given code language?
(1) mo ag   (2) bu mo
(3) xy ag   (4) xy bu
(5) mo xy

Directions (91-95): *Study the following information carefully and answer the questions given below:*

Seven persons, namely L, M, N, O, P, Q and R will appear for a different exam but not necessarily in the same order, in seven different months (of the same year) namely January, February, April, May, July, September and December. Each of them also likes a different genre of TV shows namely Family, Action,

comedy, Reality, Animated, History and Thriller but not necessarily in the same order.

O will appear for an exam in a month which has only 30 days. Only one person will appear between the one who likes animated shows and O. the one who likes Action will appear for an exam immediately before the one who likes Animated shows. The one who likes Thriller will appear for an exam neither in the month which has 31 days nor in the month which has 30 days. Only two persons will appear for an exam between the one who likes Thriller and Q. M will appear for an exam immediately after Q. R will appear for an exam immediately before N. P likes History shows. The one who likes Family shows will appear for an exam in a month which has 31 days. O does not like Comedy shows.

91. Which of the following genres of TV shows does O like?
    (1) History   (2) Thriller
    (3) Family   (4) Action
    (5) Reality

92. How many persons will appear for an exam between the months on which N and L will appear for an exam?
    (1) One   (2) None
    (3) Three   (4) Two
    (5) More than three

93. As per the given arrangements January is related to Reality shows and February is related to Action shows following a certain pattern, with which of the following is July related to following the same pattern?
    (1) Family shows   (2) Thriller shows
    (3) Comedy shows   (4) History shows
    (5) Animated shows

94. Which of the following represents the months in which L will appear for an exam?
    (1) December   (2) May
    (3) July   (4) September
    (5) Cannot be determined

95. Which of the following represents the persons who will appear for an exam in January and December respectively?
    (1) N, P   (2) N, M
    (3) R, P   (4) R, M
    (5) M, P

Directions (96-100): *Study the following information carefully and answer the questions given below:*

Eight persons – A, B, C, D, M, N, O and P – are sitting around a circular table facing the centre with equal distance between each other (but not necessarily in the same order). Each one of them is also related to N in some way or the other.

Only three persons sit between B and N. Only one person sits between N and P. N's father sits to the immediate right of P.

N's sister sits third to the right of N's father. Only one person sits between N's sister and N's son. M sits third to the left of N's son.

Only three persons sit between M and N's husband. A sits second to the right of N's husband. N's mother sits to the immediate right of C. C is not the husband of N.

N's daughter sits third to the right of P. D sits to the immediate left of N's brother.

96. How many persons sit between P and N, when counted from the left of N?
    (1) One   (2) Five
    (3) Two   (4) None
    (5) Three

97. Which of the following statements is true with respect to the given information?
    (1) A is the son of D.
    (2) C is an immediate neighbour of D.
    (3) D sits third to the left of B.
    (4) All the given options are true.
    (5) A sits second to the right of N's husband.

98. Who sits to the immediate left of P?
    (1) B   (2) M
    (3) N's sister   (4) N's husband
    (5) A

99. Who amongst the following is the son of N?
    (1) P   (2) B
    (3) D   (4) C
    (5) O

100. How is B related to A?
    (1) Grandmother   (2) Son-in-law
    (3) Grandson   (4) Uncle
    (5) wife

SOLUTIONS

1. (4)	**2.** (3)	**3.** (2)	**4.** (3)	**5.** (4)
6. (3)	**7.** (3)	**8.** (5)	**9.** (3)	**10.** (1)
11. (1)	**12.** (2)	**13.** (5)	**14.** (3)	**15.** (4)
16. (5)	**17.** (5)	**18.** (2)	**19.** (1)	**20.** (2)
21. (4)	**22.** (1)	**23.** (5)	**24.** (4)	**25.** (2)
26. (4)	**27.** (4)	**28.** (1)	**29.** (5)	**30.** (3)

31. (4) 10

Time taken in covering 7.5 km upstream

$= \dfrac{3}{2}$ hrs

$\text{Speed} = \dfrac{\text{Distance}}{\text{Time}}$

∴ Rate downstream of boat

$= \dfrac{7.5}{\frac{3}{2}} = \left(\dfrac{7.5 \times 2}{3}\right)$ kmph

$= 5$ kmph

Rate downstream of boat

$= \dfrac{7.5 \times 4}{3} = 10$ kmph

32. (1) $x \le y$

(i) $x^2 = 144$

$\Rightarrow x = \sqrt{144} = \pm 12$

(ii) $y^2 - 24y + 144 = 0$

$\Rightarrow (y - 12)^2 = 0$

$\Rightarrow y - 12 = 0 \Rightarrow y = 12$

33. (1) $x \ge y$

(i) $2x^2 - 9x - 10 = 0$

$\Rightarrow 2x^2 - 4x - 5x + 10 = 0$

$\Rightarrow 2x(x - 2) - 5(x - 2) = 0$

$(x - 2)(2x - 5) = 0$

$\Rightarrow x = 2$ or $\dfrac{5}{2}$

(ii) $2y^2 - 13y + 20 = 0$

$\Rightarrow 2y^2 - 8y - 5y + 20 = 0$

$\Rightarrow 2y(y - 4) - 5(y - 4) = 0$

$\Rightarrow (y - 4)(2y - 5) = 0$

$\Rightarrow y = 4$ or $\dfrac{5}{2}$

$y \ge x$

34. (4) $x < y$

(i) $2x^2 + 15x + 27 = 0$

$\Rightarrow 2x^2 + 6x + 9x + 27 = 0$

$\Rightarrow 2x(x + 3) + 9(x + 3) = 0$

$\Rightarrow (2x + 9)(x + 3) = 0$

$\Rightarrow x = \dfrac{-9}{2}$ or -3

(ii) $2y^2 + 7y + 6 = 0$

$\Rightarrow 2y^2 + 4y + 3y + 6 = 0$

$\Rightarrow 2y(y + 2) + 3(y + 2) = 0$

$\Rightarrow (2y + 3)(y + 2) = 0$

$\Rightarrow y = \dfrac{-3}{2}$ or -2

clearly, $x < y$

35. (3) Relationship between x and y can't be determined.

(I) $3x^2 - 13x + 12 = 0$

$\Rightarrow 3x^2 - 4x - 9x + 12 = 0$

$\Rightarrow x(3x - 4) - 3(3x - 4) = 0$

$\Rightarrow (3x - 4)(x - 3) = 0$

$\Rightarrow x = \dfrac{4}{3}$ or 3

(II) $3y^2 - 13y + 14 = 0$

$\Rightarrow 3y^2 - 6y - 7y + 14 = 0$

$\Rightarrow 3y(y-2) - 7(y-2) = 0$

$\Rightarrow (3y-7)(y-2) = 0$

$\Rightarrow y = \dfrac{7}{3}$ or 2

36. (2) $x \geq y$

(I) $5x^2 + 8x + 3 = 0$

$\Rightarrow 5x^2 + 5x + 3x + 3 = 0$

$\Rightarrow 5x(x+1) + 3(x+1) = 0$

$\Rightarrow (5x+3)(x+1) = 0$

$\Rightarrow x = \dfrac{-3}{5}$ or -1

(II) $3y^2 - 7y^2 + 4 = 0$

$\Rightarrow 3y^2 + 3y + 4y + 4 = 0$

$\Rightarrow 3y(y+1) + 4(y+1) = 0$

$\Rightarrow (y+1)(y+4) = 0$

$\Rightarrow y = -1$ or $\dfrac{-4}{3}$

Clearly, $x \geq y$

37. (1) 14

$\Rightarrow 1560 - 8 \times 25 - ?^2 = 1154$

$\Rightarrow 1560 - 200 - ?^2 = 1154$

$\Rightarrow 1360 - ?^2 = 1154$

$\Rightarrow ?^2 = 1360 - 1154 = 206$

$\Rightarrow ? = \sqrt{206} = 14$

38. (4) 1880

$? = 1600 \div 40 + \dfrac{4}{5} \times 2450 - 120$

$= 1600 \div 40 + 1960 - 120$

$= 40 + 1960 - 120 = 1880$

39. (2) 420

$? = 1575 \div 45 + 24 \times \sqrt{256}$

$= 35 + 24 \times 16$

$= 35 + 384 = 419$

40. (5) 128.5

$? + \dfrac{30 \times 650}{100} \div \dfrac{25 \times 60}{100} = 135$

$\Rightarrow ? + 195 \div 2 \times 15 = 135$

$\Rightarrow ? + 6.5 = 135$

$\Rightarrow ? = 135 - 6.5 = 128.5$

41. (3) 155

$? = 3900 \div 12 - 2380 \div 14$

$= 325 - 170 = 155$

42. (2) Rs. 9200

Amount got by B $= \text{Rs.} x$ (let)

Expense on dinner $= \text{Rs.} \dfrac{3x}{10}$

Remaining amount $= x - \dfrac{3x}{10}$

$= \dfrac{10x - 3x}{10} = \text{Rs.} \dfrac{7x}{10}$

Expense on book = Rs. 460

$\Rightarrow \dfrac{7x}{10} \times \dfrac{2}{7} = 460$

$\Rightarrow \dfrac{x}{5} = 460$

$\Rightarrow x = 5 \times 460 = \text{Rs.} 2300$

$\therefore$ Initial amount of A

$= \text{Rs.}(2300 \times 4) = \text{Rs.} 9200$

43. (3) Rs. 12000

Amount invested in scheme

$A = \text{Rs.} x$ (let)

Amount invested in scheme B

$= \text{Rs.} 3x$

C.I obtained from scheme A

13

$$P\left[\left(1+\frac{R}{100}\right)^T - 1\right]$$

$$\text{Rs.}x\left[\left(1+\frac{20}{100}\right)^2 - 1\right]$$

$$\text{Rs.}x\left[\left(1+\frac{1}{5}\right)^2 - 1\right]$$

$$\text{Rs.}x\left[\left(\frac{6}{5}\right)^2 - \right]$$

$$\text{Rs.}x\left(\frac{36}{25} - 1\right) = \text{Rs}\left(\frac{11x}{25}\right)$$

S.I from scheme B

$$= \frac{\text{Principal} \times \text{Time} \times \text{Rate}}{100}$$

$$= \frac{3x \times 2 \times 9}{100} = \text{Rs.}\frac{54x}{100}$$

$$\therefore \frac{54x}{100} = \frac{11x}{25} = 1200$$

$$= \frac{54x - 44x}{100} = 1200$$

$$\Rightarrow x = 1200 \times 10 = \text{Rs.}12000$$

44. (2) $\dfrac{3}{7}$

Total no. balls in the bag
$= 4 + 5 + 6 = 15$

Total possible outcomes
= selection of 2 balls out of 15 balls

$$^{10}C_2 = \frac{15 \times 14}{1 \times 2} = 105$$

Total favourable outcomes
= Selection of 2 balls out of 4 orange and 6 pink balls

$$^{10}C_2 = \frac{10 \times 9}{1 \times 2} = 45$$

$\therefore$ Required probability

$$= \frac{45}{105} = \frac{3}{7}$$

45. (5) 24

Let work done by 15 men in 9 days
$= W_2$

$$\Rightarrow \frac{18 \times 30}{I} = \frac{15 \times 9}{W_2}$$

$$\Rightarrow 18 \times 30 \times W_2 = 15 \times 9$$

$$\Rightarrow W_2 = \frac{15 \times 9}{18 \times 30} = \frac{1}{4}$$

Remaining work

$$1 - \frac{1}{4} = \frac{3}{4}$$

Again, 16 women complete the project in 36 days

$$\therefore \frac{M_1 D_1}{W_1} = \frac{M_2 D_2}{W_2}$$

$$\Rightarrow D_2 = \frac{27 \times 16}{18} = 24 \text{ days}$$

46. (3) The pattern is :

$155 - 4 = 151$

$151 - 7 (= 4 + 3) = 144$

$144 - 12 (= 7 + 5) = 132$

$132 - 19 (= 12 + 7) = 113$

$113 - 28 (= 19 + 9) = 85$

47. (2) The pattern is :

$18 + (1^3 - 1) = 18 + 0 = 18$

$18 + (2^3 - 2) = 18 + 6 = 24$

$24 + (3^3 - 3) = 24 + 24 = 48$

$48 + (4^3 - 4) = 48 + (64 - 4) = 108$

$108 + (5^3 - 5) = 108 + 120$

$= 228$

48. (1) The pattern is :

$9 + 1.8 = 10.8$

$10.8 + 2 \times 1.8 = 10.8 + 3.6 = 14.4$

$14.4 + 2 \times 3.6 = 14.4 + 7.2 = 21.6$

$21.6 + 2 \times 7.2 = 21.6 + 14.4 = 36$

49. (5) The pattern is :

$6 \times 1 - 1 = 6 - 1 = 5$

$5 \times 2 - 2 = 10 - 2 = 8$

$8 \times 3 - 3 = 24 - 3 = 21$

$21 \times 4 - 4 = 84 - 4 = 80$

$80 \times 5 - 5 = 400 - 5 = 395$

50. (5) The pattern is :

$16 \times 0.5 - 0.5 = 6.5 - 0.5 = 6$

$6 \times 1 - 1 = 6 - 1 = 5$

$5 \times 1.5 - 1.5 = 7.5 - 1.5 = 6$

$6 \times 2 - 2 = 12 - 2 = 10$

$10 \times 2.5 - 2.5 = 25 - 2.5$

$= 22.5$

51. (4) Quantity of rice sold at 20% loss

$= x$ kg (let)

∴ Quantity of rice sold at 15% gain

$= (600 - x)$ kg

According to the question.

$(600 - x) \times \dfrac{115}{100} + \dfrac{x \times 80}{100}$

$= \dfrac{600 \times 94}{100}$

$\Rightarrow 115 \times 600 - 115x + 80x$

$= 600 \times 94$

$\Rightarrow 69000 - 35x = 56400$

$\Rightarrow 35x = 69000 - 56400$

$\Rightarrow 35x = 12600$

$\Rightarrow x = \dfrac{12600}{35}$

$= 360$ kg

52. (4) Total initial quantity of juice in the vessel

$= 4x + 6x + 5x = 15x$ litres

In 15 litres of juice,

Grapes's juice $= 4$ litres

Pineapple's juice $= 6$ litres

Banana's juice $= 5$ litres

According to the question

$(6x - 6 + 2) - (4x - 4 + 8) = 10$

$\Rightarrow 6x - 4 - 4x - 4 = 10$

$\Rightarrow 2x - 8 = 10$

$\Rightarrow 2x = 10 + 8 = 18$

$\Rightarrow x = 9$

∴ Initial quantity of mixture $= 15x$

$= 15 \times 9 = 135$ litres

53. (5) According to the question

$B = A + 3 \Rightarrow A = B - 3$

and $B = C - 3 \Rightarrow C = B + 3$

Again, after 3 years

$\dfrac{B - 3 + 3}{B + 3 + 3} = \dfrac{4}{5}$

$\Rightarrow \dfrac{B}{B + 6} = \dfrac{4}{5}$

$\Rightarrow 5B = 4B + 24$

$\Rightarrow 5B - 4B = 24$

$\Rightarrow B = 24$

∴ $A + B + C = B - 3 + B + B + 3$

$= 3B = 3 \times 24 = 72$ years

54. (1) Volume of cylinder $= \pi r^2 h$

∴ Curved surface area of cylinder

$= 2\pi rh$

$\therefore \dfrac{\pi r^2 h}{2\pi rh} = \dfrac{616}{352}$

$\Rightarrow r = \dfrac{2 \times 616}{352} = 3.5$ metre

$\therefore \pi r^2 h = 616$

$\Rightarrow \dfrac{22}{7} \times 3.5 \times 3.5 \times h = 616$

$\Rightarrow 11 \times 3.5 \times h = 616$

$\Rightarrow h = \dfrac{616}{11 \times 3.5} = 16$

∴ Total surface area of the cylinder

$= 2\pi rh + 2\pi r^2$

$= 2\pi r (h + r)$

$= 2 \times \dfrac{22}{7} \times 3.5 (16 + 3.5)$

$= 22 \times 19.5 = 429$ sq.metre

55. (3) Number of candidates who qualified in 2010

$= \dfrac{900 \times 64}{100}$

Male candidates who qualified

$= 576 - 176 = 400$

$\therefore$ Required ratio $= 400 : 176 = 25 : 11$

56. (4) Number of candidates who appeared at the exam in 2011

$= \dfrac{700 \times 140}{100} = 980$

Number of candidates who qualified

25% of $980 = \dfrac{980}{4} = 245$

57. (3) In the year 2007

Number of candidates who appeared

$= 5x$

Number of candidates who qualified

$= 4x$

Female candidates who qualified

$= \dfrac{3}{8} \times 4x = \dfrac{3x}{2}$

$\therefore$ Required percent

$= \dfrac{3x}{2 \times 5x} \times 100 = 30\%$

58. (4) According to the question,

$9x - 5x = 72 \Rightarrow 4x = 72$

$\Rightarrow x = \dfrac{72}{4} = 18$

$\therefore$ Total candidates who qualified

$= 9x + 5x = 14x$

$= 14x \times 18 = 252$

If the number of candidates who appeared at the exam be x then

$\dfrac{42x}{100} = 252$

$\Rightarrow x = \dfrac{252 \times 100}{42} = 600$

59. (2) Candidates who qualified in 2006

$= x \; (\text{let})$

Candidates who qualified in 2008

$= \dfrac{480 \times 60}{100} = 288$

According to the question

$x + 288 = 2 \times 249 = 498$

$\Rightarrow x = 498 - 288 = 210$

If the percentage of candidates who qualified in 2006 be x then

$\dfrac{700 \times x}{100} = 210$

$\Rightarrow x = \dfrac{210}{7} = 30\%$

60. (1) Difference of time $= 1$ hour

Distance $= AB = x$ km

According to the question

$\dfrac{x}{18} - \dfrac{x}{24} = 1$

$\Rightarrow \dfrac{4x - 3x}{72} = 1$

$\Rightarrow x = 72$

Time taken at 18 kmph

$= \dfrac{72}{18} = 4$ hours

$\therefore$ Speed to cover 72 km in 2 hours

$= \dfrac{72}{2} = 36$

61. (1) Required difference

$= (310 + 350) - (320 + 250)$

$= 660 - 570 = 90$

62. (1) Required average

$$= \frac{300 + 280 + 320 + 360}{4}$$

$$= \frac{1260}{4} = 315$$

63. (2) Number of visas for country A in February

$$= \frac{400 \times 100}{80} = 500$$

$\therefore$ Required ratio

$= 500 : 360$

$= 25 : 18$

64. (3) Percentage decrease

$$= \frac{360 - 250}{360} \times 100$$

$$= \frac{1100}{36} = \frac{275}{9} = 30\frac{5}{9}\%$$

65. (4) Required percent

$$= \frac{320 - 300}{320} \times 100$$

$$= \frac{200}{32} = 6.25$$

(66 - 68) : $T > S > R$

$\square, \square, \square, \square > P > U$

$Q > T > S > R > P > U$

$\quad\quad \downarrow \quad\quad \downarrow$

$\quad$ 47 days $\quad\quad$ 14 days

S stayed for $47 - 15 = 32$ days

66. (4) R stayed for more than 14 days but less than 32 days. Thus, R stayed for 25 days.

67. (2) T stayed for the second highest number of days.

68. (1) Q stayed for more than 47 days.
Even numbers between 47 to 60 :
$\Rightarrow 48, 50, 52, 54, 56, 58$
54 is divisible by 3 but not by 4

(69 - 70) $\quad$ J is the daughter of T.
T is the mother of D and J.

J is the wife of M
Y is the daughter of J and M.

69. (4) J is the daughter of T
Q is the sister of T.
Therefore, J is the niece of Q

70. (5) Y is the daughter of J.
J is the daughter of T
Therefore, Y is the grand-daughter of T.

(71 - 72) :

$C < R \leq E \leq A = M$

$Y \geq E$

$Y \geq E \leq A = M$

$C < R \leq E \leq Y$

71. (4) Conclusions :
I. $M \geq R$: True
II. $Y > A$: Not True

72. (5) Conclusions :
I. $C = Y$: Not True
II. $C < Y$: True

(73 - 74) :

$B < L \leq A = M \geq E \geq S$

$L \geq W \geq J$

$W \leq L \leq A = M \geq E \geq S$

$J \leq W \leq L \leq A = M$

73. (3) Conclusions :
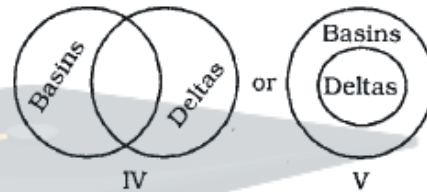I. $L < S$: Not True
II. $E > W$: Not True

74. (2) Conclusions :
I. $J < M$: Not True
II. $J = M$: Not True
It is either smaller than M or equal to M. Therefore, either conclusion I or conclusion II is ture.

75. (5) $C > H \geq O \geq K = E < D$
Conclusions :
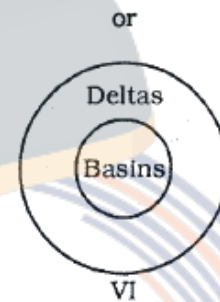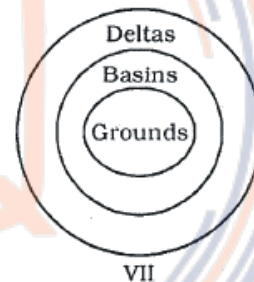I. $O > D$: Not True
II. $E < C$: True

17

(76 - 80) :

ROW - 2

RIGHT   M   L   O   N   P   LEFT

LEFT   E   C   D   A   B   RIGHT

ROW - 1
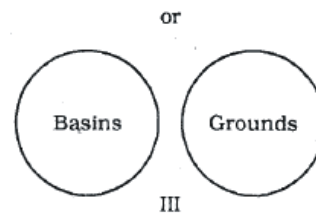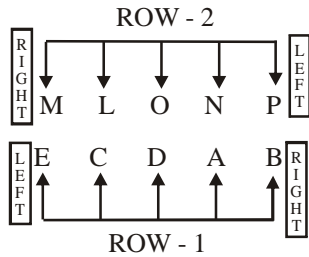
76. (3) L sits to the immediate right of O. O n l y one person sits between P and O. O faces one of the immediate neighbours of C or A.

77. (5) N is facing A.

78. (1) E is facing M.

79. (4) Except PO. in all other pairs, the two persons are immediate neighbours of each other. There is one person between O and P.

80. (2) C sits third to the left of B.

(81 - 85) :

(i) All soils are basins → Universal Affirmative (A- type)
(ii) Some basins are deltas → Particular Affirmative (I-type)
(iii) No ground is a soil → Universal Negative (E-type)
(iv) Some grounds are not soils → Particular Negative (O-type)

(81-82) :

No ground is a soil.

All soils are basins.

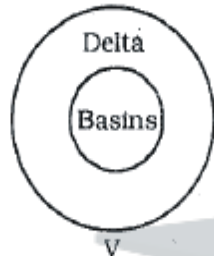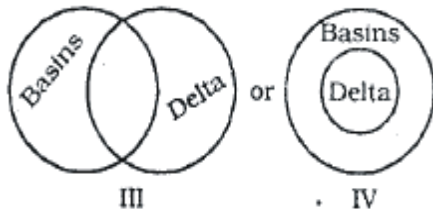$E + A \Rightarrow O_1$ – type of Conclusion

"Some basins are not grounds".

**81.** (5) Venn diagrams of "Some basins are not grounds":

I   or   II

or

Basins   Grounds

III

Venn diagrams of "Some basins are deltas".

IV   or   V

or

Deltas

Basins

VI

After combining the Venn diagrams II and VI, we get :

Deltas

Basins

Grounds

VII

Venn diagram VII supports the Conclusion II.
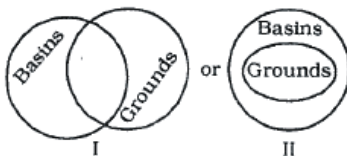
82. (4) Venn diagrams of "All soils are basins" :
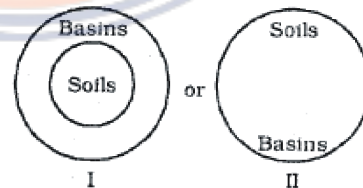
Basins   Soils
Soils   or   Basins

I   II

Venn diagrams of "Some basins are deltas" :

18

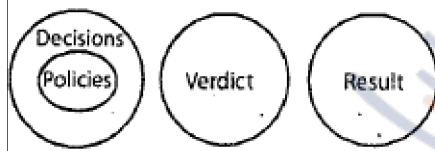III   or   IV

V

After combining the Venn diagrams II and V, we get :

VI
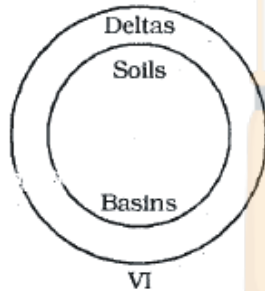
Venn diagram VI supports the Conclusion I.

83. (5) All policies are decisions

No decision is a verdict.
A + E ⟹ E-type of Conclusion
 "No policy is a verdict".
Conclusion II is the Converse of it.
Venn diagrams of all the three Premises

**84.** (2) Some machines are calculators.

No calculator is a phone.
I + E ⟹ O-type of Conclusion
"Some machines are not phones".

Conclusions I and II form Complementary Pair. Therefore, either Conclusion I or Conclusion II follows.

85. (1) Some winters are autumns.

All autumns are falls.
I + A ⟹ I-type of Conclusion
 "Some winters are falls."
Conclusion I is the Converse of it.
Venn diagrams of "All seasons are winters":

I   or   II
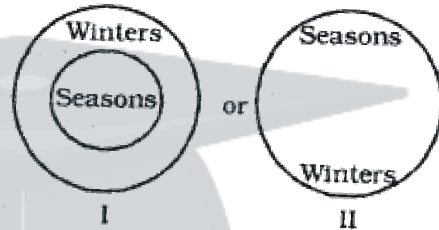
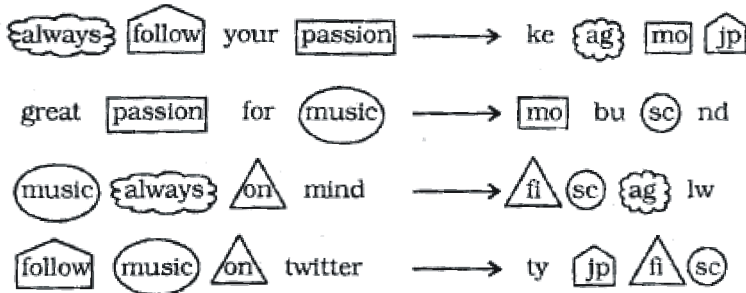Venn diagrams of "Some winters are autumns" :
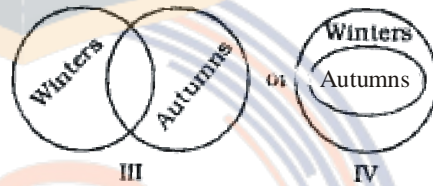
III   or   IV

or

V

After combining the Venn diagrams II and V, we get :

VI

Venn diagram VI supports the Conclusion II.

19

(86 -90)

86. (2) Follow $\Rightarrow$ jp

87. (3) mind $\Rightarrow$ lw

88. (1) nd $\Rightarrow$ great/for

89. (4) music $\Rightarrow$ sc
always $\Rightarrow$ ag
help $\Rightarrow$ hr
Therefore,
help $\Rightarrow$ hr
your $\Rightarrow$ ke
twitter $\Rightarrow$ ty

90. (5) Passion $\Rightarrow$ mo
The code for 'divine' may be 'xy'

(91 - 95) :

Month	Person	TVShows
January	R	Family Show
February	N	Thriller Show
April	O	Reality Show
May	L	Action Show
July	Q	Animated Show
September	M	Comedy Show
December	P	History Show

91. (5) O likes Reality Show.

92. (1) Only one person.

93. (4) O likes Reality Show and he will appear in exam in April.
L likes Action Show and he will appear in exam in May.
There is a gap of one between January and April here.

Similarly, there is a gap of one between February and May here. Thus, July would be related to History Show.

94. (2) L will appear in the exam in the month of May.

95. (3) R will appear in the exam in the month of January.
P will appear in the exam in the month of December.

(96 - 100) :
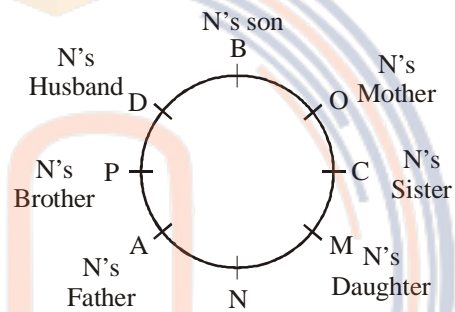
96. (1) When counted from the left of N. only one person sits between P and N.

97. (5) A is the father-in-law of D.
C is an immediate neighbour of O and M.
D sits to the immediate right of B.

98. (4) N's husband D sits to the immediate left of P.

99. (2) B is the son of N.

100. (3) B is the son of N.
A is the father of N.
Therefore, B is the grandson of A.