SBI BANK PO PRELIM EXAM 2015

REASONING ABILITY

1. How many such pairs of letters are there in the word SHOULDER each of which has as many letters between them in the word as in the English alphabet?
   - (a) None
   - (b) One
   - (c) Two
   - (d) Three
   - (e) More than three

2. If it is possible to make only one meaningful English word with the first, the fifth, the seventh and the tenth letters of the word STREAMLINE, using each letter once in each world, which of the following is the third letter of that word? If no such word can be made, give 'X' as the answer and if more than one such word can be made, give 'Y' as the answer.
   - (a) L
   - (b) E
   - (c) S
   - (d) X
   - (e) Y

3. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
   - (a) Nitrogen
   - (b) Hydrogen
   - (c) Methane
   - (d) Neon
   - (e) Helium

4. In a certain code BREAKING is written BFSCFMHJ, How is MOTHERLY written in that code?
   - (a) IUPNZMSF
   - (b) IUPNXKQD
   - (c) IUPNFSMZ
   - (d) GSNLZMSF
   - (e) None of these

5. Among P, Q, R, S and T Each having a different height, Q is taller than S. T is shorter than P. R is taller than Q but shorter than T. Who among them in the tallest?
   - (a) S
   - (b) P
   - (c) R
   - (d) Data inadequate
   - (e) None of these

6. In a row of 40 children, R is 11th from the right and there are 15 children between R and M. What is M's position from the left and of the row?
   - (a) 14th
   - (b) 15th
   - (c) 13th
   - (d) Can't be determined
   - (e) None of these

7. In a certain code language 'how many are there' is written as 'ka na ta da' and 'many are welcome here' is written as 'na pa ni ka'. How is 'how' written in that code language?
   - (a) ta
   - (b) da
   - (c) ta or da
   - (d) Data inadequate
   - (e) None of these

8. If 'R' denotes '÷', 'T' denotes '−', 'M' denotes '+' and 'W' denotes '×', then
   27 T 15 R 3 W 4 M 6 = ?
   - (a) 7
   - (b) 13
   - (c) '−' 23
   - (d) 1
   - (e) None of these

9. A man is facing west. He turns 45 degree in the clockwise direction and then another 180 degree in the same direction and then 270 degree in the anticlockwise direction. Find which direction he is facing now?
   - (a) South-West
   - (b) West
   - (c) South
   - (d) East-South
   - (e) None of these

DIRECTIONS (Qs. 10 - 15) : *Each of the questions are given four statements followed by four conclusions numbered I, II, III IV. You have to take the given statements to be true even it they seem to be at variance from commonly known facts Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.*

10. **Statements :** All drums are tubes.
    Some tubes are pipes.
    No pipe is stick.
    Some sticks are rubbers.
    Conclusions I : Some rubbers are tubes.
    Conclusions II : Some sticks are drums.
    Conclusions III : Some pipes are drums.
    Conclusions IV : Some sticks are tubes.
    - (a) None follows
    - (b) Only I follows
    - (c) Only I and II follow
    - (d) Only III follows
    - (e) None of these

11. **Statements :** Some pens are rooms.
    All rooms are walls
    Some walls are bricks
    All bricks are slates.
    Conclusions I : Some slates are walls.
    Conclusions II : Some walls are pens.
    Conclusions III : Some bricks are rooms.
    Conclusions IV : Some slates are rooms.
    - (a) Only I and III follow
    - (b) Only II and III follows
    - (c) Only I and II follow
    - (d) Only III and IV follow
    - (e) None of these

12. **Statements :** Some chairs are pencils.
    Some pencils are bottles.
    Some bottles are bags.
    Some bags are books.
    Conclusions I : Some books are pencils.
    Conclusions II : Some bottles are chairs.
    Conclusions III : No book is pencil.
    Conclusions IV : Some bags are chairs.
    - (a) Only I follows
    - (b) Only either I and III follows
    - (c) Only III follows
    - (d) Only IV follows
    - (e) None of these

13. **Statements :** Some roads are buses.
    All buses are trains.
    Some trains are trucks.
    All trucks are kites..
    Conclusions I : Some trucks are roads.
    Conclusions II : Some kites are buses.
    Conclusions III : Some trains are roads.
    Conclusions IV : Some kites are trains.
    (a) None follows   (b) Only I follows
    (c) Only II follows   (d) Only III follows
    (e) None of these
14. **Statements :** All beads are rings.
    All rings are bangles.
    All bangles are tyres.
    All tyres are pendants.
    Conclusions I : Some pendants are beads.
    Conclusions II : Some tyres are rings.
    Conclusions III : Some bangles are beads.
    Conclusions IV : Some pendants are rings.
    (a) Only I and II follow   (b) Only I, II and III follows
    (c) Only II, III and IV follow (d) Only I, III and IV follow
    (e) All follow
15. **Statements :** Some desks are fruits.
    All fruits are flowers.
    No flower is branch.
    Some branches are roots.
    Conclusions I : Some roots are flowers.
    Conclusions II : No branches are desks.
    Conclusions III : Some flowers are desks.
    Conclusions IV : Some desks are branches.
    (a) Only either II and IV follows
    (b) Only III follows
    (c) Only either II or IV and III follow.
    (d) Only I and II follow
    (e) None of these

DIRECTIONS (Qs. 16 to 20): *Read the following information carefully and answer the questions given below:*

A, B, C, D, E, F, G and H are sitting around a circle facing the centre. B is 2nd to the right of D who is 3rd to the right of F. C is 2nd to the left of A who is 2nd to the left of F. G is 3rd to right of E.

16. In which of the following combination is the 1st person sitting between the 2nd and the 3rd persons?
    (a) GCD   (b) FGH
    (c) EFH   (d) ABE
    (e) None of these
17. Who is 3rd to the right of H?
    (a) G   (b) D
    (c) C   (d) Data inadequate
    (e) None of these
18. Who is to the immediate right of A?
    (a) B   (b) E
    (c) F   (d) Data inadequate
    (e) None of these
19. What is H's position with respect to B?
    (a) 5th to the right   (b) 3rd to the left
    (c) 5th to the left   (d) 3rd to the right
    (e) 4th to the left
20. Who is to the immediate left of G?
    (a) H   (b) F
    (c) D   (d) Data inadequate
    (e) None of these

DIRECTIONS (Qs. 21 to 25): *Study the following information carefully and answer the questions given below:*

P, Q, R, S, T, V and W are seven members of a club. Each of them has a favorite sport from-Chess, Table Tennis, Lawn Tennis, Volleyball, Badminton, Basketball and Carom, not necessarily in the same order, Each of them also has a specific choice of color from- Blue, Red, Green, Yellow, Grey, Black and White, not necessarily in the same order.

R likes Green and his favorite sport is Badminton. V's choice of color is neither Red nor Black. T'S favorite sport is neither Table tennis nor Basketball. The one who likes Blue does not like Carom. The one who likes Volleyball does not like Yellow and Grey. Q's favorite sport is Lawn Tennis and he likes Black. S likes White. W likes Basketball. P likes Volleyball. T likes Blue. The one who likes Basketball does not like Grey.

21. What is V's choice color?
    (a) Black   (b) Grey
    (c) Yellow   (d) Data inadequate
    (e) None of these
22. What is T's favorite sport?
    (a) Basketball   (b) Volleyball
    (c) Chess   (d) Data inadequate
    (e) None of these
23. Whose favourite sport is Carrom?
    (a) S   (b) R
    (c) W   (d) Data inadequate
    (e) None of these
24. Whose favourite sport is basketball?
    (a) S   (b) T
    (c) W   (d) R
    (e) None of these
25. What is W's choice of colour?
    (a) Green   (b) White
    (c) Black   (d) Data inadequate
    (e) None of these

DIRECTIONS (Qs. 26 to 30): *Read the following information and answer the questions based on it.*

P @ Q means P is either greater than or equal to Q
P + Q means P is either smaller than or equal to Q
P % Q means P is greater than Q
P × Q means P is smaller than Q
P $ Q means P is neither greater than nor smaller than Q.
Now in each of the following questions assuming the given statement to be true, find which of the two conditions I and II given below them is/are definately true? Give answer.
(a) If only conclusion I is true
(b) If only conclusion II is true
(c) If either I or II is true
(d) If neither I or II is true
(e) If both I and II is true
26. **Statements :** M @ R, R % T, T $ K
    Conclusion : (I) K × M, (II) T × M
27. **Statements :** H % J, B + J, B @ F
    Conclusion : (I) F $ J, (II) J % F
28. **Statements :** D $ M, M % W, W @ R
    Conclusion : (I) R×D, (II) W + D
29. **Statements :** A + N, N×V, V$J
    Conclusion : (I) J @ N, (II) A + V
30. **Statements :** K×T, T @ B, B + M
    Conclusion : (I) M % T, (II) K + B

DIRECTIONS (Qs. 31 to 35): *Read the following information carefully and answer the questions given below it:*

In a family, there are six members A, B, C, D, E and F. A and B are married couple, A being the male member. D is the only son of C, who is the brother of A. E is the sister of D. B is the daughter-inlaw of F, whose husband has died.

31. How is F related to A?
(a) Mother
(b) Sister-in-law
(c) Sister
(d) Mother-in-low
(e) None of these

32. How is E related to C?
(a) Sister
(b) Daughter
(c) Cousin
(d) Aunt
(e) Mother

33. Who is C to B?
(a) Brother
(b) Brother-in-law
(c) Nephew
(d) Son-in-law
(e) None of these

34. How many male members are there in the family?
(a) One
(b) Two
(c) Three
(d) Four
(e) Five

35. How is F related to C?
(a) Mother-in-law
(b) Sister-in-law
(c) Mother
(d) Aunt
(e) Sister

QUANTITATIVE APTITUDE

36. The simple interest accrued on an amount of ₹20,000 at the end of three years is ₹7,200. What would be the compound interest accrued on the same amount at the same rate in the same period?
(a) ₹8098.56
(b) ₹8246.16
(c) ₹8112.86
(d) ₹8342.36
(e) None of these

37. If the numerator of a fraction is increased by 300% and the denominator is increased by 500%, the resultant fraction is $\frac{5}{12}$. What was the original fraction?

(a) $\frac{8}{5}$
(b) $\frac{5}{11}$

(c) $\frac{12}{5}$
(d) $\frac{5}{7}$

(e) None of these

38. A sum of money is divided among A, B, C and D in the ratio of 3 : 5 : 9 : 13 respectively. If the share of C is ₹. 2412 more than the share of A, then what is the total amount of money of B and D together?
(a) ₹4422
(b) ₹7236
(c) ₹6030
(d) ₹4824
(e) None of these

39. The average age of 80 girls was 20 years, the average age of 20 of them was 22 years and that of another 20 was 24 years. Find the average age of the remaining girls.
(a) 17 years
(b) 19 years
(c) 21 years
(d) 15 years
(e) None of these

40. Ms. Pooja Pushpan invests 13% of her monthly salary, i.e. ₹, 8554 in Mediclaim Policies, Later she invests 23% of her monthly salary on Child. Education Policies; also she invests another 8% of her monthly salary on Mutual Funds. What is the total annual amount invested by Ms. Pooja Pushpan?
(a) ₹ 28952
(b) ₹ 43428
(c) ₹ 347424
(d) ₹ 173712
(e) None of these

41. The profit earned after selling an article for ₹878 is the same as loss incurred after selling the article for ₹636. What is the cost price of the article?
(a) ₹ 797
(b) ₹ 787
(c) ₹ 767
(d) ₹ 757
(e) None of these

42. In a class of 240 students, each student got sweets got sweets that are 15% of the total number of students. How many sweets were there?
(a) 3000
(b) 3125
(b) 8640
(d) Cannot be determined
(e) None of these

43. Sonika spent ₹45, 760 on the interior decoration for her home, ₹7896 on buying air conditioner and the remaining 28% of the total amount she had as cash with her. What was the total amount?
(a) ₹98540
(b) ₹102300
(b) ₹134560
(d) Cannot be determined
(e) None of these

44. The ages of Khushi and Jagriti are in the ratio of 5 : 8 respectively. After 8 years the ratio of their ages will be 3 : 4 what is the difference in their ages?
(a) 16 years
(b) 8 years
(c) 10 years
(d) 12 years
(e) None of these

45. In how many different ways can the letters of the word 'PUNCTUAL' be arranged?
(a) 64
(b) 40320
(c) 960
(d) 20160
(e) None of these

DIRECTIONS (Qs. 46-50) : *What will come in place of the question mark (?) in the following number series.*

46. 93 95 99 ? 110 121 134
(a) 104
(b) 96
(c) 82
(d) 103
(e) None of these

47. 8 12 18 27 40.5 60.75?
(a) 104.125
(b) 121.125
(c) 96.125
(d) 83.125
(e) None of these

48. 4 7 11 18 29 ? 76 123
(a) 59
(b) 38
(c) 46
(d) 53
(e) None of these

49. 3 10 ? 172 885 5346 37471 299832
- (a) 39
- (b) 27
- (c) 24
- (d) 34
- (e) None of these

50. 15 22 56 183 ? 3755 22542
- (a) 709
- (b) 698
- (c) 748
- (d) 800
- (e) None of these

DIRECTIONS (Qs. 51-55) : *What approximate value will come in place of the question mark (?) in the following questions?*

51. $2959.85 \div 16.001 - 34.99 = ?$
- (a) 160
- (b) 150
- (c) 140
- (d) 180
- (e) 170

52. $(1702 \div 68) \times 136.05 = ?$
- (a) 3500
- (b) 3550
- (c) 3450
- (d) 3400
- (e) 3525

53. $2950 \div 12.25 + 160 = ?$
- (a) 440
- (b) 350
- (c) 380
- (d) 360
- (e) 400

54. 25.05% of $2845 + 14.95 \times 2400 = ?$
- (a) 36,700
- (b) 36,500
- (c) 35,800
- (d) 35,600
- (e) 36,200

55. $(186 \times 270.99) \div 40 = ?$
- (a) 1160
- (b) 1200
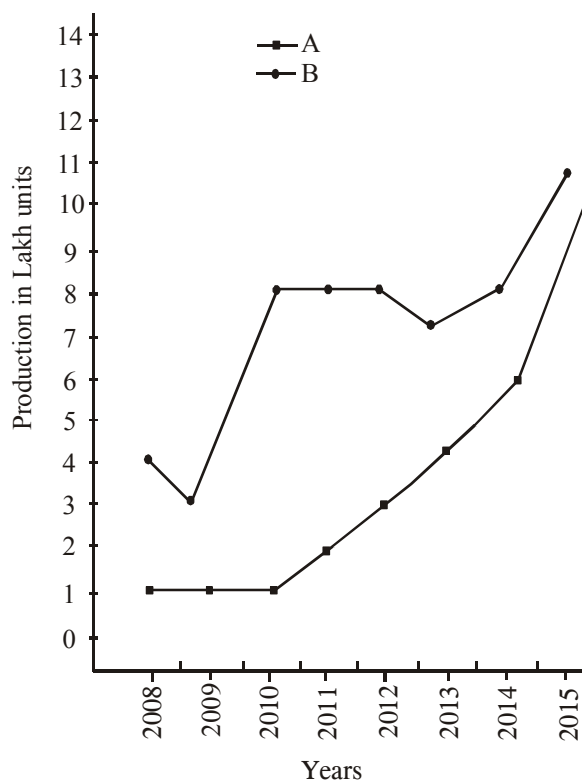- (c) 1300
- (d) 1180
- (e) 1260

DIRECTIONS (Qs. 56-60) : *In each of the following questions two equations are given. You have to solve them and*

Give answer (a) if p < q;
Give answer (b) if p > q;
Give answer (c) if p ≤ q;
Give answer (d) if p ≥ q;
Give answer (e) if p = q;

56. I. $p^2 - 7p = -12$

II. $q^2 - 3q + 2 = 0$

57. I. $12p^2 - 7q = -1$

II. $6q^2 - 7q + 2 = 0$

58. I. $p^2 + 12p + 35 = 0$

II. $2q^2 + 22q + 56 = 0$

59. I. $p^2 - 8p + 15 = 0$

II. $q^2 - 5q = -6$

60. I. $2p^2 + 20p + 50 = 0$

II. $q^2 = 25$

DIRECTIONS (Qs. 61 - 65) : *Study the following graph to answer the given questions.*

Production of two companies A & B over the years (Production in Lakh units)

61. For Company A, what is the percent decrease in production from 2008 to 2009?
- (a) 75
- (b) 50
- (c) 35
- (d) 10
- (e) None of these

62. In 2004, the production of Company B is approximately what per cent of that of in 2013?
- (a) 60
- (b) 157
- (c) 192
- (d) 50
- (e) 92

63. For Company A, in which year is the percentage increase/ decrease in the production from the previous year the highest?
- (a) 2014
- (b) 2005
- (c) 2012
- (d) 2008
- (e) None of these

64. What is the difference in the total production of the two Companies for the given years?
- (a) 27,00,000
- (b) 31,00,000
- (c) 2,70,000
- (d) 3,10,000
- (e) None of these

65. Which of the following is the closest average production in lakh units of Company B for the given years?
- (a) 4.1
- (b) 3.5
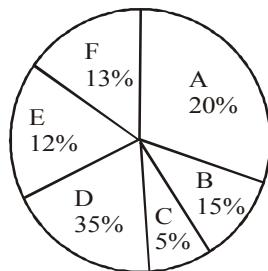- (c) 4.3
- (d) 3.75
- (e) 3.9

DIRECTIONS (Qs. 66-70) : *Study the following information to answer the given questions.*

Percentage of students in various courses (A, B, C, D, E, F) and Percentage of girls out of these.
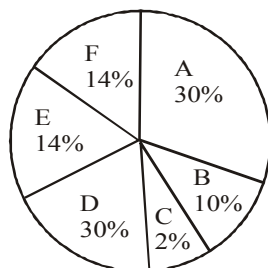
Total students : 1200

(800 girls + 400 boys)

Percentage in various courses

F 13%
E 12%
A 20%
D 35%
C 5%
B 15%

Total Girls : 800

Percentage of Girls in courses

F 14%
E 14%
A 30%
D 30%
C 2%
B 10%

66. For course D what is the respec-tive ratio of boys and girls?

(a) 3 : 4   (b) 4 : 5

(c) 3 : 5   (d) 5 : 6

(e) None of these

67. For which pair of courses is the number of boys the same?

(a) E & F   (b) A & D

(c) C & F   (d) B & D

(e) None of these

68. For course, E, the number of girls is how much per cent more than the boys for course E?

(a) 250   (b) 350

(c) 150   (d) 80

(e) None of these

69. For which course is the number of boys the minimum?

(a) E   (b) F

(c) C   (d) A

(e) None of these

70. How many girls are in course C ?

(a) 44   (b) 16

(c) 40   (d) 160

(e) None of these

ENGLISH LANGUAGE

DIRECTIONS (Qs. 71 to 75): *Given below are six sentences i.e. A, B, C, D, E and F, which have been presented in a wrong order. Arrange them in order to form a meaningful paragraph and then answer the questions given below.*

(A) Some others, like the European nations, have a low birth rate and a low death rate.

(B) Many others have a high birth rate with a low death rate.

(C) Different countries show different patterns of growth.

(D) Some have high birth rate and still have a high death rate.

(E) Compared to this is Europe the growth rate is low.

(F) The developing countries show the most rapid growth rate.

71. Which will the LAST sentence in the Para?

(a) A   (b) B

(c) C   (d) D

(e) E

72. Which will be the FIRST sentence in the Para?

(a) E   (b) D

(c) C   (d) B

(e) A

73. Which will come at SECOND place in the para?

(a) A   (b) B

(c) C   (d) D

(e) E

74. Which sentence will come at FIFTH place in the Para?

(a) F   (b) D

(c) B   (d) A

(e) C

75. Which will be the THIRD sentence in the Para?

(a) B   (b) A

(c) D   (d) F

(e) E

DIRECTIONS (Qs. 76 to 80): *Fill in the blanks with appropriate word:-*

Let children learn to judge their own work. A child ___(76)___ to talk does not learn ___(77)___ being corrected all the time ___(78)___ corrected too much, he will ___(79)___ talking. He notices a thousand times a day the difference between the ___(80)___ he uses and the language those around him use.

76. (a) endeavouring   (b) learning

(c) experimenting   (d) experiencing

(e) preparing

77. (a) In   (b) on

(c) By   (d) to

(e) From

78. (a) unless   (b) being

(c) until   (d) if

(e) so

79. (a) stop   (b) halt

(c) avoid   (d) shun

(e) giveup

80. (a) speech   (b) language

(c) talk   (d) skill

(e) virtue

DIRECTIONS (Qs. 81 to 85): *Five alternative a, b, c, d and e are given under each sentence, you are required to select the most suitable alternative to fill in the blank/blanks in the sentence to make it meaningful.*

81. Intelligence is an _____ part of one's success.

(a) inseparable   (b) inimitable

(c) indivisible   (d) indispensable

(e) None of these

82. Anjana impressed the interviewer with her concise, _____ answers.

(a) allusive   (b) revealing

(c) pertinent   (d) referential

(e) None of these

83. The coach asked the players to _____ with his ideology or leave the team.

(a) counter   (b) align

(c) favour   (d) separate

(e) None of these

84. The seminar helped _____ the students on the harmful effects of smoking and alcohol.
   (a) educate   (b) learn
   (c) teach   (d) insist
   (e) None of these

85. Rajeev was _____ legal aid to fight his extradition.
   (a) offered   (b) granted
   (c) allowed   (d) awarded
   (e) None of these

DIRECTIONS (Qs. 86 to 90): *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. The letter of that part is the answer. If there is no error, the answer is 'D'. (Ignore the errors of punctuation, if any)*

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86. "The Patient is comparatively better (a)/ today and I hope (b)/ that he will recover soon" (c)/ said the doctor (d)/ No error (e)

87. All the members (a)/ of the committee are (b)/ kindly requested to appear (c)/ in the next morning (d)/ No error (e).

88. This is the new (a)/ book "One Night @ the call centre" authored by Chetan Bhagat which my father (b)/ bought it (c)/ for you (d)/ No error (e)

89. The passing marks (a)/ in Economics is thirty three (b)/ but he has secured (c)/ just twenty-nine (d)/ No error

90. As my neighbourers (a)/ are very co-operative (b)/ I do not (c)/ feel any difficultly in living in this locality (d)/ No error (e)

DIRECTIONS (Qs. 91 to 100): *Read the following passage carefully and answer the questions given below it.*

It is a strange that, according to his position in life, an extravagant man is admired or despised. A successful businessman does nothing to increase his popularity by being careful with his money. He is expected to display his success, to have smart car, an expensive life, and to be lavish with his hospitality. If he is not so, he is considered mean and his reputation in business may even suffer in consequence. The paradox remains that if he had not been careful with his money in the first place, he would never have achieved his present wealth. Among the two income groups, a different set of values exists.

The yaung clerk who makes his wife a present of a new dress when the hadn't paid his houserent condemned as extravagant. Carefulness with money to the point of meanness is applauded as a virtue. Nothing in his life is considered more worthy than paying his bills. The ideal wife for such a man separaters her housekeeping money into joyless little piles- so much for rent, for food, for the children's shoes; she is able to face the milkman with equanimity and never knows the guilt of buying something she can't able to face the milkman with equanimity and never knows the guilt of buying something she can't really afford. As for myself, I fall into neither of these categories. If I have money to spare I can be extravagant, but when, as is usually the case, I am hard up, then I am then meanest man imaginable.

91. In the opinion of the writer, a successful businessman:
   (a) is more popular if he appears to be doing nothing.
   (b) should not bother about his popularity.
   (c) must be extravagant before achieving success.
   (d) is expected to have expensive tastes.
   (e) None of these

92. The phrase lavish with his hospitatlity signifies
   (a) miserliness in dealing with his friends.
   (b) considerate ness in spending on guests and strangers.
   (c) extravagance in entertaining guests.
   (d) indifference in treating his friends and relatives.
   (e) none of these

93. We understand from the passage that
   (a) all mean people are wealthy
   (b) wealthy people are invariably successful.
   (c) carefulness generally leads to failure.
   (d) thrift may lead to success.
   (e) none of these

94. It seems that low paid people should
   (a) not pay their bills promptly.
   (b) not keep their creditors waiting.
   (c) borrow money to meet their essential needs
   (d) feel guilty if they overspend
   (e) none of these

95. The word paradox means:
   (a) statement based on facts.
   (b) that which brings out the inner meaning.
   (c) that which is contrary to received opinion.
   (d) statement based on the popular opinion.
   (e) none of these

96. How does the housewife, described by the writer, feel when she saves money?
   (a) is content to be so thrifty.
   (b) wishes life were less burdensome.
   (c) is still troubled by a sense of guilt.
   (d) wishes she could sometimes be extravagant.
   (e) none of these

97. Which of the following is opposite in meaning to the word applauded in the passage?
   (a) Humiliated   (b) Decried
   (c) Cherished   (d) Suppressed
   (e) None of these

98. The statement she is able to face the milkman with equanimity implies that:
   (a) she is not upset as she has been paying the milkman his dues regularly.
   (b) she loses her nerve at the sight of the milkman who always demands his dues.
   (c) she manages to keep cool as she has to pay the milkman who always demands his dues.
   (d) she remains composed and confident as she knows that she can handle the milkman tactfully.
   (e) none of these

99. As far as money is concerned, we get the impression that the writer:
   (a) is incapable of saving anything
   (b) is never inclined to be extravagant
   (c) would like to be considered extravagant
   (d) doesn't often have any money to save
   (e) none of these

100. Which of the following would be the most suitable title for the passage?
   (a) Extravagance leads to poverty
   (b) Miserly habits of the poor.
   (c) Extravagance in the life of the rice and the poor.
   (d) Extravagance is always condemnable.
   (e) None of these

HINTS & SOLUTIONS

1. (b)

2. (e) Meaningful words:
SALE, SEAL

1	2	3	4	5	6	7	8	9	10
S	T	R	E	A	M	L	I	N	E

3. (c) Among these, only Methane is compound gas.

4. (b)
B R E A K I N G
+1   −1
B F S C F M H J

M O T H E R L Y
+1   −1
I U P N X K Q D

5. (b) P > T > R > Q > S
∴ P is the tallest

6. (a)

7. (c) how many are there → ka na ta da   (i)
many are welcome here → na pi ni ka   (ii)
From equations (i) and (ii) many are → na ka
how → ta or da

8. (b) Given arrangement = 27 T 15 R 3 W 4 M 6
According to question, letters converted into
mathematical symbols
$= 27 - 15 \div 3 \times 4 + 6 = 27 - 5 \times 4 + 6$
$= 27 - 20 + 6 = 33 - 20 = 13$

9. (a)

The man firstly faces the direction OA. On moving 45 degree
clockwise [Please check carefully always if clockwise or
anticlockwise], he faces the direction OB. Now again he
moved 180 degree clockwise, now he will be facing OC. From
here he moved 270 degree anticlockwise, Finally he is facing
OD, which is South west.

10. (a)

or

Conclusion I : (False)
Conclusion II : (False)
Conclusion III : (False)
Conclusion IV : (False)
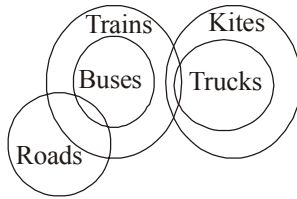∴ None follows

11. (c)

Conclusion I : (True)
Conclusion II : (True)
Conclusion III : (False)
Conclusion IV : (False)

12. (b)

Conclusion I : (False)
Conclusion II : (False)   Either I and III follows.
Conclusion III : (False)
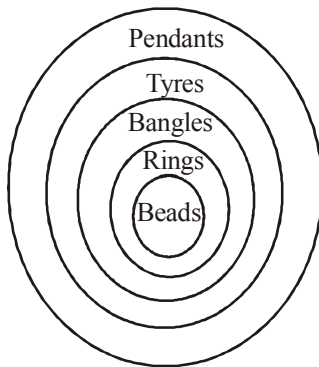Conclusion IV : (False)

13. (e)

Conclusion I : (False)

Conclusion II : (False)

Conclusion III : (True)

Conclusion IV : (True)

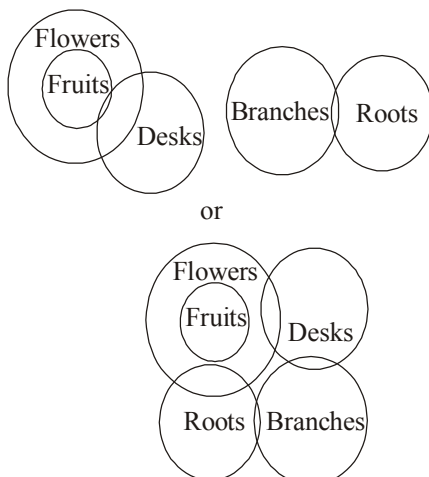**14. (e)**

Conclusion I : (True)

Conclusion II : (True)

Conclusion III : (True)

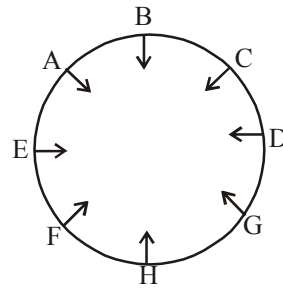Conclusion IV : (True)

Hence, All four follows.

15. (c)

or

Conclusion I : (False)

Conclusion II : (False)

Conclusion III : (True)

Conclusion IV : (True)

16-20 :

16. (d)   **17. (c)**   **18. (b)**   **19. (e)**   **20. (a)**

21-25 :

Members	Sports	Colors
P	Volleyball	Red
Q	Lawn-tennis	Black
R	Badminton	Green
S	Carrom/Table tennis	White
T	Chess	Blue
V	Carrom/Table tennis	Grey
W	Basketball	Yellow

21. (b)   **22. (c)**   **23. (d)**   **24. (c)**   **25. (e)**

26. (e) $M \geq R > T = K$

Conclusion I : $K < M$ (True)

Conclusion II : $T < M$ (True)

Hence, both conclusions are true.

27. (c) $M > J \geq B \geq F$

Conclusion I : $F = J$ ⎤

                      ⎬ Either

Conclusion II: $J > J$ ⎦

Hence, either I or II is true.

28. (a) $D = M > W \geq R$

Conclusion I : $R < D$ (True)

Conclusion II : $W \leq D$ (False)

Hence, only conclusion I is true.

29. (d) $A \leq N < V = J$

Conclusion I : $J \geq N$ (False)
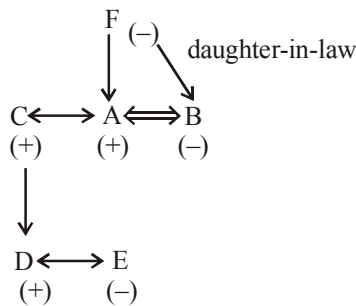
Conclusion II: $A \leq V$ (False)

Hence, both conclusions are false.

30. (d) $K < T \geq B \leq M$

Conclusion I : $M > T$ (False)

Conclusion II : $K \leq B$ (False)

Hence, both conclusions are false.

31-35 :

```
              F
              │ (–)   daughter-in-law
              ↓      ↘
    C ⟷ A ⟸ B
   (+)   (+)   (–)
              │
              ↓
         D ⟷ E
        (+)   (–)
```

31. (a) 32. (b) 33. (b) 34. (c) 35. (c)

36. (a) Rate $=\dfrac{S.I.\times100}{Principal\times Time}$

$=\dfrac{7200\times100}{20000\times3}=12\%$ per annum

$\therefore C.I.=P\left[\left(1+\dfrac{R}{100}\right)^T-1\right]$

$=20000\left[\left(1+\dfrac{12}{100}\right)^3-1\right]$

$=20000\,[(1.12)^3-1]$
$=20000\times(1.404928-1)$
$=₹8098.56$

37. (e) Let the original fraction be $\dfrac{x}{y}$.

According to the question,

$\dfrac{x\times400}{y\times600}=\dfrac{5}{12}$

$\Rightarrow\dfrac{x}{y}=\dfrac{5}{12}\times\dfrac{6}{4}=\dfrac{5}{8}$

38. (b) Let the original sum be ₹x.
Sum of the Ratios
$=3+5+9+13=30$

$\therefore$ C's share $=₹\dfrac{9x}{30}$

$=₹\dfrac{3x}{10}$

A's share $=₹\dfrac{3x}{30}$

$=₹\dfrac{x}{10}$

According to the question,

$\dfrac{3x}{10}-\dfrac{x}{10}=2412$

$\Rightarrow\dfrac{2x}{10}=2412$

$\Rightarrow x=2412\times5=₹12060$

$\therefore$ Amount received by B and D together

$=₹\left(\dfrac{(5+13)}{30}\times12060\right)$

$=₹7236$

39. (a) Total age of remaining 40 girls
$=(80\times20-20\times22-20\times24)$ years
$=(1600-440-480)$ years
$=680$ years
$\therefore$ Required average age

$=\dfrac{680}{40}=17$ years

40. (c) Let Ms. Pooja Pushpan's monthly salary $=$ ₹. x
According to the question,
13% of the x $=$ ₹ 8554

$\Rightarrow x=₹\left(\dfrac{8554\times100}{13}\right)$

$=₹65800$
Total monthly investment in percentage
$=13+23+8=44$
$\therefore$ Total monthly investment
$=44\%$ of ₹65800

$=₹\left(\dfrac{44\times65800}{100}\right)$

$=₹28952$
$\therefore$ Total annual investment
$=₹(12\times28952)$
$=₹347424$

41. (d) Let the C.P. of the article be ₹ x.
According to the question,
$878-x=x-636$
$\Rightarrow2x=878+636=1514$

$\Rightarrow x=\dfrac{1514}{2}=₹757$

42. (c) Number of sweets received by each student
$=15\%$ of 240

$=\dfrac{15\times240}{100}=36$

$\therefore$ Total number of sweets
$=240\times36=8640$

43. (b) Let the total amount be ₹ x.
The amount spent $=100-28=72\%$
$\therefore72\%$ of x
$=₹(45760+27896)$

$\Rightarrow\dfrac{72\times x}{100}=73656$

$\Rightarrow x=\dfrac{73656\times100}{72}$

$=₹102300$

44. (e) Let the present ages of Khushi and Jagriti be 5x and 8x years respectively.

After 8 years,

$$\frac{5x+8}{8x+8} = \frac{3}{4}$$

$$\Rightarrow 24x + 24 = 20x + 32$$

$$\Rightarrow 4x = 32 - 24 = 8$$

$$\Rightarrow x = \frac{8}{4} = 2$$

45. (d) The word PUNCTUAL consists of 8 letters in which the letter 'U' comes twice.

$\therefore$ Number of arrangements.

$$= \frac{8!}{2!} = \frac{8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1}{1 \times 2} = 20160$$

46. (d) The given number series is based on the following pattern:

93 + 2 = 95

95 + 3 = 98

98 + 5 = $\boxed{103}$

103 + 7 = 110

110 + 11 = 121

121 + 13 = 134

Hence, 103 will replace the question mark.

47. (e) The given number series is based on the following pattern:

8 × 1.5 = 12

12 × 1.5 = 18

18 × 1.5 = 27

27 × 1.5 = 40.5

40.5 × 1.5 = 60.75

$\therefore$? = 60.75 × 1.5 = $\boxed{91.125}$

Hence, 91.125 will replace the question mark.

48. (e) The given number series is based on the following pattern:

4 + 7 = 11

11 + 7 = 18

18 + 11 = 29

$\therefore$? = 29 + 18 = $\boxed{47}$

Hence, 47 will replace the question mark.

49. (a) The given number series is based on the following pattern:

$3 \times 2 + 2^2 = 10$

$10 \times 3 + 3^2 = \boxed{39}$

$39 \times 4 + 4^2 = 172$

$172 \times 5 + 5^2 = 885$

$885 \times 6 + 6^2 = 5346$

Hence, 39 will replace the question mark.

50. (c) The given number series is based on the following pattern :

15 × 1 + 1 × 7 = 22

22 × 2 + 2 × 6 = 56

56 × 3 + 3 × 5 = 183

183 × 4 + 4 × 4 = $\boxed{748}$

748 × 5 + 5 × 3 = 3755

3755 × 6 + 6 × 2 = 22542

Hence, 748 will replace the question mark.

51. (b) ? = 2959.85 ÷ 16.001 − 34.99

$\approx 2960 \div 16 - 35$

$\approx \frac{2960}{16} - 35 \approx 185 - 35$

≈ 150

52. (d) ? = (1702 ÷ 68) × 136.05

$\approx \frac{1700}{68} \times 136$

≈ 3400

53. (e) $? = \frac{2950}{12.25} + 160$

$\approx \frac{2950}{12} + 160 \approx 405.8$

Clearly 12,25 ≈ 12 < 12.25

Hence, 2950 ÷ 12 will give larger quotient.

$\therefore$ Our answer should be 405.

54. (a) ? = 25.05% 2845 + 14.95 × 2400

$\approx \frac{25}{100} \times 2845 + 15 \times 2400$

$\approx 711.25 + 36000$

$\approx 36711.25 \approx 36700$

55. (e) $? \approx \frac{186 \times 271}{40} \approx 1260.15$

≈ 1260

56. (b) (I) $p^2 - 7p = -12$

$\Rightarrow p^2 - 4p + 12 = 0$

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

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

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

$\Rightarrow p = 3$ or 4

(II) $q^2 - 3q + 2 = 0$

$\Rightarrow q^2 - 2q - 9 + 2 = 0$

$\Rightarrow q(q - 2) - 1(q - 2) = 0$

$\Rightarrow (q - 2)(q - 1) = 0$

$\Rightarrow q = 1$ or 2

Obviously p > q

57. (a) (I) $12p^2 - 7p = -1$

$\Rightarrow 12p^2 - 7p + 1 = 0$

$\Rightarrow 12p^2 - 4p - 3p + 1 = 0$

$\Rightarrow 4p(3p - 1) - 1(3p - 1) = 0$

$\Rightarrow (3p - 1)(4p - 1) = 0$

$\Rightarrow p = \dfrac{1}{4} \text{ or } \dfrac{1}{3}$

(II) $6q^2 - 7q + 2 = 0$

$\Rightarrow 6q^2 - 4q - 3q + 2 = 0$

$\Rightarrow 2q(3q - 2) - 1(3q - 2) = 0$

$\Rightarrow (3q - 2)(2q - 1) = 0$

$\Rightarrow q = \dfrac{2}{3} \text{ or } \dfrac{1}{2}$

Obviously, $p \le q$

58. (c) (I) $p^2 + 12p + 35 = 0$

$\Rightarrow p^2 + 7p + 5p + 35 = 0$

$\Rightarrow p(p + 7) + 5(p + 7) = 0$

$\Rightarrow (p + 7)(p + 5) = 0$

$\Rightarrow p = -5 \text{ or } -7$

(II) $2q^2 + 22q + 56 = 0$

$\Rightarrow 2q^2 + 14q + 8q + 56 = 0$

$\Rightarrow 2q(q + 7) + 8(q + 7) = 0$

$\Rightarrow (q + 7)(2q + 8) = 0$

$\Rightarrow q = -7 \text{ or } -4$

Obviously, $p \le q$

59. (d) (I) $p^2 - 8p + 15 = 0$

$\Rightarrow p^2 - 3p - 5p + 15 = 0$

$\Rightarrow p(p - 3) - 5(p - 3) = 0$

$\Rightarrow (p - 3)(p - 5) = 0$

$\Rightarrow p = 3 \text{ or } 5$

(II) $q^2 - 5q = -6$

$\Rightarrow q^2 - 5q + 6 = 0$

$\Rightarrow q^2 - 3q - 2q + 6 = 0$

$\Rightarrow q(q - 3) - 2(q - 3) = 0$

$\Rightarrow q(q - 3)(q - 2) = 0$

$\Rightarrow q = 3 \text{ or } 2$

Obviously, $p \ge q$.

60. (c) (I) $2p^2 + 20p + 50 = 0$

$\Rightarrow p^2 + 10p + 25 = 0$

$\Rightarrow (p + 5)^2 = 0$

$\Rightarrow p + 5 = 0$

$\Rightarrow p = -5$

(II) $q^2 = 25$

$\Rightarrow q = \pm 5$

Obviously, $p \le q$,

61. (c) Production of Company A

in 2008 = 4 lakh units

in 2009 = 3 lakh units

Decrease = 4 − 3 = 1 lakh units

$\therefore$ % decrease

$= \dfrac{1}{4} \times 100 = 25\%$

62. (b) Production of Company B

in 2013 = 7 lakh units

in 2014 = 11 lakh units.

$\therefore$ Required percentage

$= \dfrac{11}{7} \times 100 = 157.14 \approx 157\%$

63. (d) It is obvious from the graph.

64. (a) Total production of Company A

$= (4 + 3 + 8 + 8 + 8 + 7 + 8 + 12) = 58$ lakh units

$= 5800000$

Total production of Company B

$= (1 + 1 + 1 + 2 + 3 + 5 + 7 + 11) = 31$ lakh units

$= 3100000$

$\therefore$ Required difference

$= (58 - 31) \times 100000$

$= 2700000$

65. (e) Required average production of Company B

$= \dfrac{31}{8}$ lakh units

$= 3.875 \approx 3.9$ lakh units

66. (a) For course D

No. of girls = 30% of 800

$= \dfrac{30 \times 800}{100} = 240$

No. of students

$= 35 \times \dfrac{1}{100} \times 1200 = 420$

$\therefore$ No. of boys = 420 − 240 = 180

$\therefore$ Required ratio = 180 : 240 = 3 : 4

67. (c) Number of boys

in course E = 12% of 1200 – 14% of 800 = 144 – 112 = 32

in course F = 13% of 1200 – 14% of 800 = 156 – 112 = 44

in course A = 20% of 1200 – 30% of 800 = 240 – 240 = 0

in course D = 35% of 1200 – 30% of 800 = 420 – 240 = 180

in course C = 5% of 1200 – 2% of 800 = 60 – 16 = 44

Obviously pair C and F is our answer.

68. (a) For Course E,

No. of girls = 14% of 800

= 112

No. of boys = 32

$\therefore$ Required percentage

$= \dfrac{80}{32} \times 100 = 250$

69. (d)

70. (b) No. of girls in course C

= 2% of 800 = 16

71-75 : The Correct order is:- C D A B F E

71. (e)   72. (c)   73. (d)   74. (a)   75. (b)

76. (b)   77. (c)   78. (d)   79. (a)   80. (b)

81. (d) indispensable means essential, and fits the blank.

82. (d) pertinent means "relevant or applicable to the matter at hand". So it fits the blank.

83. (b) align means to "adjust or support", and fits the blank.

84. (a) The correct answer here is educate. While the other words have similar meaning, they do not make the sentence grammatically correct.

85. (b) Legal aid is "granted". So, it fits the blank.

86. (a) Either you have to remove "comparatively" or convert "better" to "good" in the sentence. The meaning of "comparatively" is - to evaluate anything using comparison estimate by comparison, etc. hence you should use either "better" or "comparatively good" in order to make the sentence correct.

87. (c) "Kindly" will not be used here; because "kindly" and "requested" are never used simultaneously "kindly" and "please" are used in Active Voice to denote "request"; while denote "kindly" and "please" in Passive Voice, "Requested" is generally used.

88. (c) The use of "it" is superfluous here, as the usage of the Object of "bought"- the book: is correct in the sentence.

89. (a) Instead of "passing marks" you should use "pass marks", because "passing marks" is not correct

90. (a) You should use "neighbours" instead of "neighbourers" because, there is no word in English like "neighbourers". The meaning of "neighbours" is people who live or are situated nearby.

91. (d)   92. (c)   93. (d)   94. (d)   95. (c)   96. (a)

97. (b)   98. (a)   99. (d)   100. (c)