HINTS & SOLUTIONS

1. **(e)**
From statement I

going to a party → la fa qu tu

For a party → fa me tu

from statement II

start the party → tu Co ra
going to start → qu Co la

From both the statements
The code for party is <u>tu</u>

2. **(d)** From statement I
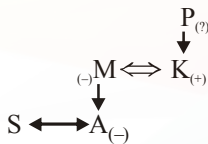According to Amita, Priya is travelling on Wednesday. Thursday or Friday.
According to Rohit, Priya is travelling on Tuesday, Wednesday or Thursday.
From both the statements
Priya is travelling on Wednesday or Thursday.

3. **(d)** From both the statements

$$P_{(?)}$$
$$_{(-)}M \Longleftrightarrow K_{(+)}$$
$$S \longleftrightarrow A_{(-)}$$

The sex of P is not known
The data in both statements are not sufficient to answer the question.

4. **(e)** From both the statements
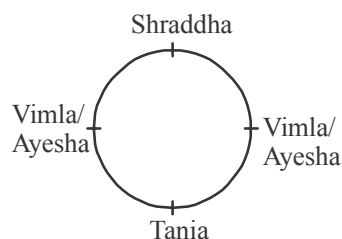Monday ⇒ Crash
Tuesday ⇒ Ice Age/Notting Hill
Wednesday ⇒ Ice Age/Notting Hill
Thursday ⇒ Social Network
So data in both statements are sufficient to answer the question.

5. **(d)** From both the statements

So data in both statements are not sufficient to answer the question.

(6-10):

After careful analysis of the given input and various steps of arrangement it is evident that in each step one word and one number are rearranged. The words are rearranged from the left in alphabetical order but in reverse order while the numbers are rearranged in descending order from the right.

(6-7) :
Input : always 19 give 21 84 for 62 14 worthy cause
Step I : worthy always 19 give 21 for 62 14 cause 84
Step II : worthy give always 19 21 for 14 cause 62 84
Step III : worthy give for always 19 14 cause 21 62 84
Step IV : worthy give for cause always 14 19 21 62 84

6. **(d)** Option (d) is the Step III.
7. **(c)** Four steps are needed to complete the arrangement.

(8-10) :
Input : 50 62 tips on 67 how can 42 stay young 17 89 forever 03
Step I : young 50 62 tips on 67 how can 42 stay 17 forever 03 89
Step II : young tips 50 62 on how can 42 stay 17 forever 03 67 89
Step III : young tips stay 50 on how can 42 17 forever 03 62 67 89
Step IV : young tips stay on how can 42 17 forever 03 50 62 67 89
Step V : young tips stay on how forever can 17 03 42 50 62 67 89
Step VI : young tips stay on how for ever can 03 17 42 50 62 67 89

8. **(a)** It is Step III.
9. **(b)** 42 is at the fifth position from the right end in Step V.
10. **(a)** Option (a) is the last step.
11. **(e)** Statement (e) weakens the argument in the passage because heavy compromise on quality and standards of their back office jobs. contradicts the argument.
12. **(c)** Outsourcing from the West would sender thousands of Indians unemployed.
13. **(c)** Statement (c) can be easily inferred from the facts given is passage.
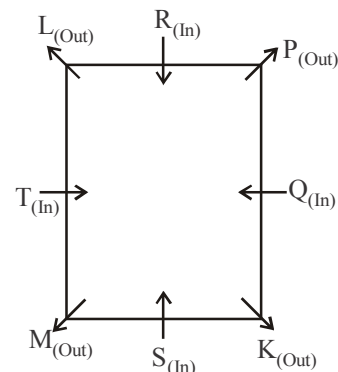
14. **(d)** M is second to the left of L.
**15.** **(b)** P sits exactly between Q and R.

16. **(e)** Q faces T and both are sitting in the middle of the sides.
17. **(c)** P and Q.
18. **(b)** Q would sit to the immediate right of K.
19. **(e)** Except R, all others are seated at the corners.
20. **(b)** Statement (C) is the effect.
21. **(e)** Statement (A) is the cause.
22. **(e)** Statement (D) is an assumption.
23. **(e)** Statement (E) contradicts the facts stated in the paragraph.
24. **(c)** Shortage of electricity can only lee faced with saving in electricity. So argument I seems to be strong. Argument II is also strong because every citizen is paying every single unit of electricity so he/she has right to consume it. Argument III seems to be weak because government can earily manage restricted use of electricity.
25. **(c)** Statement (c) would weaken the findings that some of the patients did not respond to the traditional drug meant for malria.
26. **(e)** Data given is conclusion (e) is in favour of findings given in the statement.
27. **(c)** Statement (c) is just opposites of findings given in statement because the organisations where employees are allowed to use cell phones their work-efficiency is reduced considerably.
28. **(d)** If sugar is not supplied to largest food beverage and pharma companies the stock of sugar will improve and prices will come down.

29. **(c)**

Conclusions:
  I. (False)
  II. (True)   } Either
  III. (False)
  IV. (False)
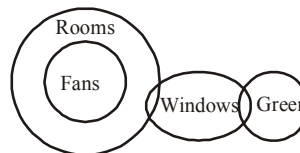
30. **(e)**
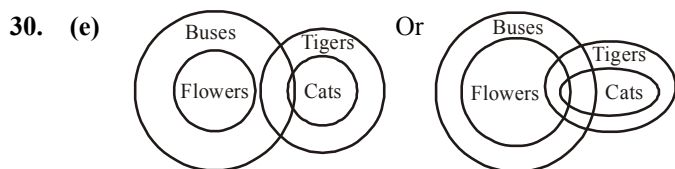
Conclusions:
  I. (True)
  II. (False)
  III. (False)
  IV. (True)
So only conclusion I & IV follows.

31. **(c)**

Or

Conclusions:
  I. (False)
  II. (False)
  III. (False)
  IV. (True)
So only conclusion IV follows.

32. **(e)**
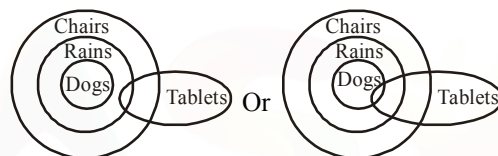
Conclusions:
  I. (True)
  II. (True)
  III. (False)
  IV. (True)
So only conclusion I, II and IV follows.

33. **(e)**

Conclusions:
  I. (False)
  II. (True) Conversion of the second premise
  III. (False)
  IV. (False)

(34-38) :

Students	Institute	Specialization
Ashwin	M	Finance
Devika	L	Marketing
Baljit	J	HR
Chandrakant	K	HR
Urmila	T	Finance
Nagesh	R	Marketing
Pranjali	F	HR

34. **(d)**   35. **(a)**   36. **(b)**
37. **(e)**   38. **(c)**

(39-43) :

Person	Boarding station	Leaving station
A	IV	V
B	Base or I	III
C	Base or I	V
D	Base or I	III
E	Base	IV
F	Base or I	II
G	Base or I	V

39. (c)   40. (d)   41.   (d)

42 (c)   43 (b)

44. (b) Sixth to the right of 14th from the right end means 8th from right.

.......D $ 6̲ E N F 8 U H @

↑_____↑
8th from right

45. (d)

No Consonant	Consonant	Symbol

Such combinations are :

7W% , 3D$, UH@

46. (a) 8th to the left of 16th from left means 8th from the left.

R 4 T M 7 W % J̲ 9 5 I ....

↑_____↑
8th from left

47. (e) Obviously, option (e) justifies the given fact. People generally prefer small quantity of product at a time so the product in form of sachet is more popular in consumers. Consumers thinks it is better to consume the ingredients at once. So sale of product also increases.

(48 – 50):

₹ 18,000   ₹ 23,000   ₹ 35,000

C D K L A N B
↑ ↑ ↑ ↑ ↑ ↑ ↑→North

48. (c) A and L earn more than ₹ 23,000 but less than ₹ 35,000.

49. (a) D earns more than ₹ 18, 000 but less than ₹ 23,000. So, D may earn ₹ 21,000.

50. (d) L earns more than K but less than A.

51. (e) From statement I,

Let the number of students in the intitutes A and B be $3x$ and $4x$ respectively. However we get no conclusive answer by using data given in all the statements.

52. (c) From statements I and II, Let Mr. X's monthly income = ₹ x. Then

$$\frac{15 \times x}{100} = 4500$$

$$\Rightarrow x = \frac{4500 \times 100}{15} = ₹\ 30000$$

From statements I and III,

$$x \times \frac{4}{5} \times \frac{85}{100} = 20400$$

$$\Rightarrow x = \frac{20400 \times 5 \times 100}{4 \times 85}$$

$$= ₹\ 30000$$

53. (a) From Statements I and III, Let Suchitra's son's present age be x years.

∴ Suchitra's present age

$= 2x$ years

After 4 years,

$$\frac{2x + 4}{x + 4} = \frac{13}{24}$$

We can get the required answer by this relation. So statement II is not required.

54. (d) From all three statements, Seeta's investment

$$= ₹\ \left(\frac{3}{8} \times 2.5\right) \text{lakh}$$

$$= ₹\ 93750$$

Geeta's investment

$$= ₹\ 156250$$

Ratio of Neeta's, Seeta's and Geeta's profit

$= 85000 \times 24 : 93750 \times 18 : 156250 \times 18$

We can get the share of Neeta if total profit is given. So data given in all three statements is required to answer the question.

55. (d) Let the marked price of the article be ₹ x.

From statement II.

$$\frac{95 \times x}{100} = 608$$

$$\Rightarrow x = \frac{608 \times 100}{95} = ₹\ 640$$

From statements I and III,

Marked price $= \frac{128 \times 500}{100}$

$$= ₹\ 640$$

So statement II is sufficient to give the answer.

56. (b) Required average price

$$= \frac{750 \times 25 + 600 \times 45}{1350}$$

$$= ₹\ \left(\frac{18750 + 27000}{1350}\right) \text{ per kg}$$

$$\approx ₹\ 34 \text{ per kg}$$

57. (d) Required cost price

$$= ₹\ \left(800 \times \frac{90}{100} \times 80\right)$$
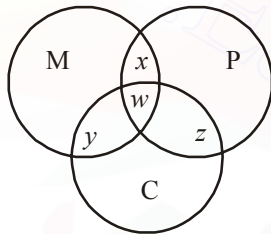
$$= ₹\ 57600$$

75. (b) The given series is based on the following pattern :

3600   725   150   35   12   [7.4]

÷5+5   ÷5+5   ÷5+5   ÷5+5   ÷5+5
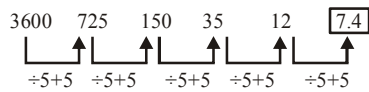
Hence. 7.4 will come in place of the question mark.

76. (d) Let the original fraction is $\dfrac{a}{b}$.

According to question,

$$\dfrac{a + \dfrac{350}{100} \times a}{b + \dfrac{300}{100} \times b} = \dfrac{9}{22}$$

$\Rightarrow \quad \dfrac{4.5a}{4b} = \dfrac{9}{22}$

$\Rightarrow \quad \dfrac{a}{b} = \dfrac{9}{22} \times \dfrac{4}{4.5} = \dfrac{4}{11}$

77. (e) Let breadth of rectangular plot is b cm length of rectangular plot, $l = 3b$

$l \times b = 6075$

$\Rightarrow \quad 3b^2 = 6075$

$\Rightarrow \quad b^2 = 2025$

$\Rightarrow \quad b = 45$

Length of plot = 3×45 cm = 135 cm

78. (d) Let her monthly salary be ₹ x.

According to the question,

$$\dfrac{7}{100} \times x = 2170$$

$\Rightarrow \quad x = \dfrac{2170 \times 100}{7} = ₹31000$

Total monthly investment = (18 + 6 + 7)% of 31000

$= \dfrac{31}{100} \times 31000 = 9610$

Total annual investment = 12 × 9610 = ₹ 115320

79. (b) 'PRIDE' has five different letters.

So, it can be arranged in 5 ! = 120 ways

80. (d) Let present ages of Samir and Tanuj are $8x$ and $15x$ years respectively.

Difference between their ages = $15x - 8x = 7x$

Ratio of ages after 9 years,

$$\dfrac{8x+9}{15x+9} = \dfrac{11}{18}$$

$\Rightarrow \quad 144x + 162 = 165x + 99$

$\Rightarrow \quad 21x = 63 \Rightarrow x = 3$

Difference between their ages = $7x$ = 21 years

81. (e) I. $\Rightarrow p^2 + 3p + 2p + 6 = 0$

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

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

$\Rightarrow p = 2$ or -3

II. $\Rightarrow q^2 + q + 2q + 2 = 0$

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

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

$\Rightarrow q = -1$ or -2

Obviously $p \le q$

82. (d) I. $\Rightarrow p = \pm 2$

II. $\Rightarrow q^2 + 2q + 2q + 4 = 0$

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

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

$\Rightarrow q = -2$

Obviously $p \ge q$

83. (b) I. $p^2 + p - 56 = 0$

$\Rightarrow p^2 + 8p - 7p - 56 = 0$

$\Rightarrow p(p + 8) - 7(p + 8) = 0$

$\Rightarrow (p + 8)(p - 7) = 0$

$\Rightarrow p = 7$ or -8

II. $q^2 - 8q - 9q + 72 = 0$

$\Rightarrow q(q - 8) - 9(q - 8) = 0$

$\Rightarrow (q - 8)(q - 9) = 0$

$\Rightarrow q = 8$ or 9

Obviously $p < q$

84. (a) We have,

$3p + 2q = 58$ … (i)

$4p + 4q = 92$

$\Rightarrow 2p + 2q = 46$ … (ii)

By (i), (ii) we get $p = 12$

From (i), $3 \times 12 + 2q = 58$

$\Rightarrow 2q = 58 - 36 = 22$

$\Rightarrow q = 11$

Hence, $p > q$

85. (b) I. $\Rightarrow 3p^2 + 15p + 2p + 10 = 0$

$\Rightarrow 3p(p + 5) + 2(p + 5) = 0$

$\Rightarrow (p + 5)(3p + 2) = 0$

$p = -5$ or $-\dfrac{2}{3}$

II. $\Rightarrow 10q^2 + 5q + 4q + 2 = 0$

$\Rightarrow 5q(2q + 1) + 2(2q + 1) = 0$

$\Rightarrow (2q + 1)(5q + 2) = 0$

$\Rightarrow q = -\dfrac{1}{2}$ or $-\dfrac{2}{5}$

Hence, $p < q$

86. (a) Required ratio = 40 : 35 = 8 : 7

87. (b) Required average

$= \left(\dfrac{15 + 25 + 30 + 40 + 15 + 10}{6}\right)$ thousand

$= \dfrac{135}{6} = 22.5$ thousand

88. (c) Required percentage increase

$= \dfrac{25 - 10}{10} \times 100 = 150$

89. (e) Laptops manufactured by Apple, Lenovo and Samsung in 2013 = 15 + 40 + 25 = 80 thousand

Laptops manufactured by Dell, HP and Abascus in 2014 Required = 15 + 25 + 35 = 75 thousand

Difference = 5000

90. (a) Abascus $\Rightarrow$ 35000

91. (a) $7072 \div \left(\dfrac{884 \times 16}{100}\right) = 30 \times \dfrac{13}{12} \times \dfrac{?}{39}$

$\Rightarrow \quad 7072 \div 141.44 = \dfrac{5 \times ?}{6}$

$\Rightarrow \quad 50 \times 6 = 5 \times ?$

$\Rightarrow \quad ? = \dfrac{50 \times 6}{5} = 60$

92. (a) $(3375)^6 \div (15)^{10} \div (225)^7 = (15)^{?-6}$

$\Rightarrow \quad ((15)^3)^6 \div (15)^{10} \div (15^2)^7 = (15)^{?-6}$

$\Rightarrow \quad 15^{18-10-14} = (15)^{?-6}$

$\Rightarrow \quad -6 = ?-6$

$\Rightarrow \quad ? = 0$

93. (b) $\dfrac{1478.4}{56} + 66.8 \times 57 = ? \times 3 + 34 \times 34.5$

$\Rightarrow \quad 26.4 + 3807.6 = ? \times 3 + 1173$

$\Rightarrow \quad 3834 - 1173 = ? \times 3$

$\Rightarrow \quad ? \times 3 = 2661$

$\Rightarrow \quad ? = 887$

94. (c) $\left(13 + 2\sqrt{5}\right)^2 = ? \times \sqrt{5} + 189$

$\Rightarrow \quad 169 + 20 + 2 \times 13 \times 2\sqrt{5} = ? \times \sqrt{5} + 189$

$\Rightarrow \quad 189 + 52 \times \sqrt{5} = ? \times \sqrt{5} + 189$

$\Rightarrow \quad ? = 52$

95. (d) $0.22 + 0.0054 = ? - 313.06$

$\Rightarrow \quad 0.2254 + 313.06 = ?$

$\Rightarrow \quad ? = 313.2854$

96. (b) If total maximum marks be x, then,

$\dfrac{x \times 64}{100} = 2240 - 128 = 2112$

$\Rightarrow \quad ? = \dfrac{2112 \times 100}{64} = 3300$

Marks obtained by Meena = 2240 − 907 = 1333

Required percentage = $\dfrac{1333}{3300} \times 100 \approx 40$

97. (c) Total possible outcomes = $^{17}C_5$

$= \dfrac{17 \times 16 \times 15 \times 14 \times 13}{1 \times 2 \times 3 \times 4 \times 5} = 6188$

Total favourable outcomes = $^8C_2 \times {}^4C_1 \times {}^5C_2$

$= \dfrac{8 \times 7}{1 \times 2} \times 4 \times \dfrac{5 \times 4}{1 \times 2} = 28 \times 4 \times 10 = 1120$

Required probability = $\dfrac{1120}{6188} = \dfrac{280}{1547}$

98. (d) A's salary = ₹ $8x$ and B's salary = ₹ $9x$

$\dfrac{8x \times 150\%}{9x \times 75\%} = \dfrac{16}{9}$

$\Rightarrow \quad \dfrac{8x \times 150}{9x \times 75} = \dfrac{16}{9}$

$\Rightarrow \quad \dfrac{\overset{12x}{\cancel{24x}}}{\underset{4}{\cancel{27x}}} = \dfrac{16}{9} \Rightarrow \dfrac{48}{27} = \dfrac{16}{9}$

Hence, A's salary cannot be determined.

99. (a) Percentage increase in the consumption

$= \dfrac{10}{100-10} \times 100 = \dfrac{100}{9} = 11\dfrac{1}{9}\%$

100. (b) $\dfrac{3}{5} + \dfrac{4}{7} = \dfrac{21 + 20}{35} = \dfrac{41}{35}$ and $\dfrac{4}{5} + \dfrac{3}{7} = \dfrac{28 + 15}{35} = \dfrac{43}{35}$

101. (b)	**102. (c)**	**103. (a)**	**104. (d)**	**105. (b)**
106. (d)	**107. (e)**	**108. (d)**	**109. (b)**	**110. (a)**
111. (b)	**112. (d)**	**113. (e)**	**114. (c)**	**115. (a)**
116. (a)	**117. (b)**	**118. (c)**	**119. (d)**	**120. (e)**
121. (d)	**122. (e)**	**123. (c)**	**124. (a)**	**125. (b)**
126. (e)				

127. (d) 'Mushrooming' should be used-which would serve as an adjective.

128. (c) 'Are' should replace 'is'- verb should agree with 'bulbs'

129. (b) 'By' should replace 'with' - which means 'by the way of'

130. (e)

131. (b) 'Make up' would mean create by altering or modifying such as 'making up a story.' 'Puts up' is also an incorrect expression here as it means 'stays' 'Toil up' is again incorrect option as it means to put hard work into. Option (b) 'conjures' is the right answer which means 'to recall.'

132. (a) 'Sturdy' means 'with strong built up', 'wobbly' means 'unsteady', 'herculean' means 'having great strength.', 'handsome' means 'good looking.' Option (a) is the most appropriate here as a horseman is generally visualized as the one having strong built up.

133. (c) Since the sentence talks about communist rulers 'taking over', option (c) 'imposing' which means 'to thrust.'

134. (d) 'Amplify' and 'stretch' both mean an increase. 'Die' would be a little extreme word here. 'Recede' which means 'to move back' matches up with the word background used in the sentence.

135. (d) The correct tense form here would be option (d) i.e.; 'were.'

136. (a)	**137. (c)**	**138. (b)**	**139. (e)**	**140. (e)**
141. (b)	**142. (a)**	**143. (b)**	**144. (d)**	**145. (b)**
146. (c)	**147. (c)**	**148. (d)**	**149. (b)**	**150. (b)**
151. (d)	**152. (b)**	**153. (d)**	**154. (a)**	**155. (d)**
156. (d)	**157. (a)**	**158. (a)**	**159. (a)**	**160. (a)**
161. (b)	**162. (b)**	**163. (a)**	**164. (a)**	**165. (d)**
166. (b)	**167. (b)**	**168. (a)**	**169. (b)**	**170. (b)**
171. (c)	**172. (c)**	**173. (a)**	**174. (d)**	**175. (a)**
176. (a)	**177. (a)**	**178. (d)**	**179. (d)**	**180. (c)**
181. (d)	**182. (c)**	**183. (b)**	**184. (a)**	**185. (b)**
186. (b)	**187. (c)**	**188. (c)**	**189. (c)**	**190. (d)**
191. (a)	**192. (d)**	**193. (c)**	**194. (e)**	**195. (c)**
196. (a)	**197. (d)**	**198. (b)**	**199. (b)**	**200. (c)**

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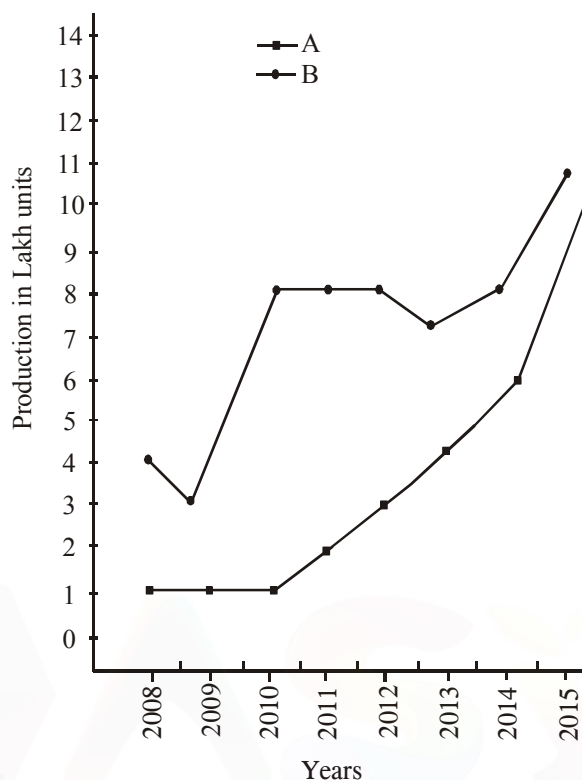
61. For Company A, what is the percent decrease in production from 2008 to 2009?
  (a) 75 (b) 50
  (c) 35 (d) 10
  (e) None of these

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%
A 20%
E 12%
D 35%
C 5%
B 15%
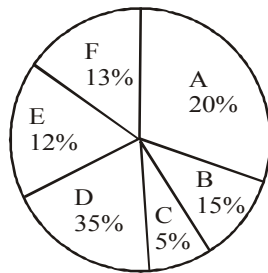
Total Girls : 800

Percentage of Girls in courses

F 14%
A 30%
E 14%
D 30%
C 2%
B 10%
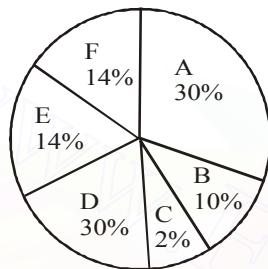
66. For course D what is the respec-tive ratio of boys and girls?
    (a) 3 : 4   (b) 4 : 5
    (c) 3 : 5   (d) 5 : 6
    (e) None of these

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)*

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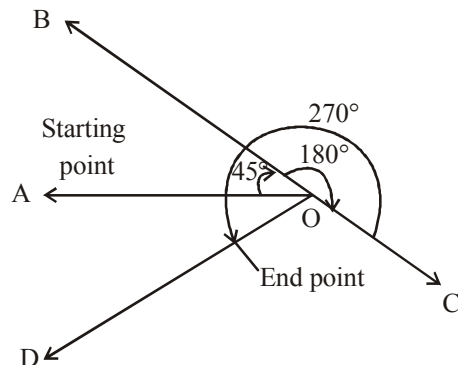
The man firstly faces the direction OA. On moving 45 degree clockwise [Please check carefully always if clockwise or anticlockwise], he faces the direction OB. Now again he moved 180 degree clockwise, now he will be facing OC. From here he moved 270 degree anticlockwise, Finally he is facing OD, which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

10. (a)

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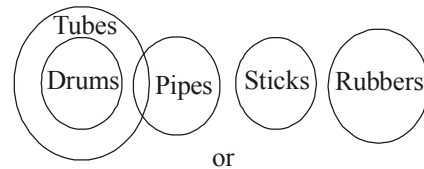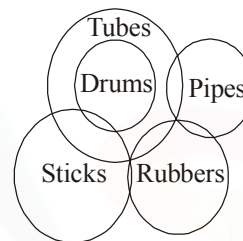
Conclusion I : (False)
Conclusion II : (False)
Conclusion III : (False)
Conclusion IV : (False)
∴ None follows

11. (c)
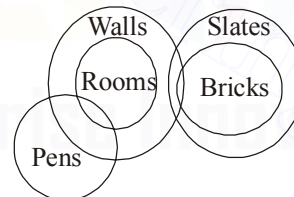
Conclusion I : (True)
Conclusion II : (True)
Conclusion III : (False)
Conclusion IV : (False)

12. (b)

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

Either I and III follows.

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
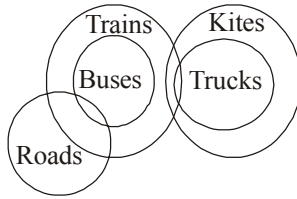
Conclusion I : (False)

Conclusion II : (False)

Conclusion III : (True)

Conclusion IV : (True)

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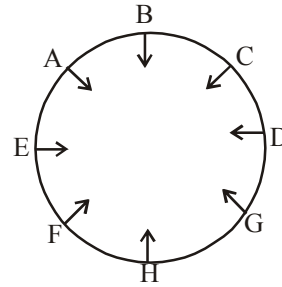
16. (d)   17. (c)   18. (b)   19. (e)   20. (a)

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 $= \dfrac{S.I. \times 100}{Principal \times Time}$

$= \dfrac{7200 \times 100}{20000 \times 3} = 12\%$ 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,

$\dfrac{x \times 400}{y \times 600} = \dfrac{5}{12}$

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

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,

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

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

$\Rightarrow x = 2412 \times 5 = ₹12060$

$\therefore$ Amount received by B and D together

$= ₹\left(\dfrac{(5 + 13)}{30} \times 12060\right)$

$= ₹\,7236$

39. (a) Total age of remaining 40 girls
$= (80 \times 20 - 20 \times 22 - 20 \times 24)$ 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 $= ₹\,8554$

$\Rightarrow x = ₹\left(\dfrac{8554 \times 100}{13}\right)$

$= ₹\,65800$

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

$= ₹\left(\dfrac{44 \times 65800}{100}\right)$

$= ₹\,28952$

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

41. (d) Let the C.P. of the article be ₹ x.
According to the question,
$878 - x = x - 636$
$\Rightarrow 2x = 878 + 636 = 1514$

$\Rightarrow x = \dfrac{1514}{2} = ₹757$

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

$= \dfrac{15 \times 240}{100} = 36$

$\therefore$ Total number of sweets
$= 240 \times 36 = 8640$

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

$= ₹(45760 + 27896)$

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

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

$= ₹102300$

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.

∴ 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

∴ ? = 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

∴ ? = 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

≈ 2960 ÷ 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.

∴ Our answer should be 405.

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

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

≈ 711.25 + 36000

≈ 36711.25 ≈ 36700

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

≈ 1260

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

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

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

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

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

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

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

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

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

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

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

Obviously p > q

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

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

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

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

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

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

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

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

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

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

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

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

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

62. (b) Production of Company B

in 2013 = 7 lakh units

in 2014 = 11 lakh units.

$\therefore$ Required percentage

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

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) × 100000

= 2700000

65. (e) Required average production of Company B

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

$= 3.875 \approx 3.9$ lakh units

66. (a) For course D

No. of girls = 30% of 800

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

No. of students

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

$\therefore$ 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

∴ 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)

SBI BANK PO MAIN EXAM 2015

REASONING ABILITY

DIRECTIONS (Qs. 1-3): *Study the following information to answer the given questions.*

In a certain code 'colours of the sky' is written as 'ki la fa so', 'rainbow colours' is written as 'ro ki' and 'sky high rocket' is written as 'la pe jo' and 'the rocket world' is written as 'pe so ne'.

1. Which of the following is the code for 'colours sky high'?
   (a) ro jo la   (b) fa la jo
   (c) la ki jo   (d) ki jo la
   (e) fa ki jo
2. Which of the following will/may represent 'the'?
   (a) Only fa   (b) Only la
   (c) Only so   (d) Either (a) or (b)
   (e) Either (a) or (c)
3. What does 'pe' represent in the code?
   (a) colours   (b) sky
   (c) high   (d) rainbow
   (e) rocket

DIRECTIONS (Qs. 4-8): *In these questions, relationship between different elements is shown in the statements. These statements are followed by two conclusions.*

Give answer
(1) If only conclusion I follows
(2) If only conclusion II follows
(3) If either conclusion I nor II follows
(4) If neither conclusion I nor II follows
(5) If both conclusion I and II follows

4. **Statements**
   $W \geq D < M < P < A = F$
   Conclusions
   I. $F > D$ II. $P < W$
5. **Statements**
   $H \geq M > F < A = B > S$
   Conclusions
   I. $H > B$ II. $F < S$
6. **Statements**
   $B > T > Q > R = F$
   Conclusions
   I. $Q \geq F$ II. $T > F$
7. **Statements**
   $S = R \geq Q, P < Q$
   Conclusions
   I. $S \geq P$ II. $R > P$

8. **Statements**
   $S \geq M < Y = Z > F > T$
   Conclusions
   I. $S > F$ II. $Y > T$

DIRECTIONS (Qs. 9-13): *Study the following information carefully and answer the given questions.*

(i) A, B, C, D, E, F, G and H are sitting around a circle facing the centre but not necessarily in the same order.
(ii) B sits second to left of H's husband. No female is an immediate neighbour of B.
(iii) D's daughter sits second to right of F, F is the sister of G. F is not an immediate neightbour of H's husband.
(iv) Only one person sits between A and F. A is the father of G. H's brother D sits to the immediate left of H's mother. Only one person sits between H's mother and E.
(v) Only one person sits between H and G. G is the mother of C. G is not an immediate neighbour of E.

9. What is position of A with respect of his mother-in-law?
   (a) Immediate left   (b) Third to the right
   (c) Third to the left   (d) Second to the right
   (e) Fourth to the left
10. What is the position of A with respect to his mother-in-grandchild?
   (a) Immediate Right   (b) Third to the right
   (c) Third to the left   (d) Second to the right
   (e) Fourth to the left
11. Four of the following five are alike in a certain way based on the given information and so form a group. Which is the one that **does not** belong to that group?
   (a) F   (b) C
   (c) E   (d) H
   (e) G
12. Which of the following is true with respect to the given seating arrangement?
   (a) C is the cousin of E
   (b) H and H's husband are immediate neighbours of each other
   (c) No female is an immediate neighbour of C
   (d) H sits third to left of her daughter
   (e) B is the mother of H
13. Who sits to the immediate left of C?
   (a) F's grandmother   (b) G's son
   (c) D's mother-in-law   (d) A
   (e) G

DIRECTIONS (Qs. 14-18): *In each question given four statements are followed by three Conclusions I, II and III. You have to take the four given statements to be true even if they seem to be tat variance from the commonly known facts. Read the conclusions and decide which logically follows from the four given statements disregarding commonly known facts.*

Qs. No. 14-15

Statements   All footballers are music lover.
All footballers are dancer.
No dancer is cricketer.
No cricketer is player.

14. **Conclusions** I.   Dancer can be player being a possibility
II. All those dancer are footballers are also music lovers.
III. Any cricketer can never be player.
(a) None follow   (b) All follow
(c) Only I follows   (d) Both II and III follow
(e) None of these

15. **Conclusions** I.   All cricketer can be music lover.
II. Some player are footballers.
III. At least some footballers are cricketer.
(a) Only I follows   (b) I and III follow
(c) II and III follow   (d) None follows
(e) None of these

Qs. No. 16-18

Statements   All boys are intelligent.
Very few girls are intelligent.
None girl is leader.
Some professor are leader as well as boys.

16. **Conclusions** I.   36% of girls are intelligent.
II. 2% girls are intelligent.
III. Some boys can never be a girl.
(a) Only II follows   (b) Only III follows
(c) Both I and II follow   (d) None follows
(e) All follow

17. **Conclusions** I.   All leaders are professors.
II. There is a possibility that every girl can be professor.
III. All professor can be leaders.
(a) None follows
(b) Only II follows
(c) Both II and III follows
(d) Only III follows
(e) None of these

18. **Conclusions** I.   Atleast some professors are girls
II. No professors is intelligent.
III. 5% professors are leader.
(a) Only I follows   (b) Only II follows
(c) Only III follows   (d) Both II and III follows
(e) None of these

DIRECTIONS (Qs. 19-23): *Study the following information carefully and answer the given question:*

A word and number arrangement machine when given an input line of words and numbers rearrange them following a particular rule in each step. The following is an illustration of input and rearrangement. (All the numbers are two-digit numbers).

Input : gate 20 86 just not 71 for 67 38 bake sun 55
Step I   : bake gate 20 just not 71 for 67 38 sun 55 86
Step II   : for bake gate 20 just not 67 38 sun 55 86 71
Step III : gate for bake 20 just not 38 sun 55 86 71 67
Step IV   : just gate for bake 20 not 38 sun 55 86 71 67
Step V   : not just gate for bake 20 sun 86 71 67 55 38
Step VI   : sun not just gate for bake 86 71 67 55 38 20
Steps VI is the last step of the arrangement the above input.
As per the rule followed in the above steps, find out in each of the following questions the appropriate step for the given input.
Input: 31 rise gem 15 92 47 aim big 25 does 56 not 85 63 with moon

19. How many steps will be required to complete the rearrangement?
(a) Eight   (b) Six
(c) Seven   (d) Five
(e) None of these

20. Which words numbers would be at 7th position from the left in step IV?
(a) rise   (b) aim
(c) big   (d) 15
(e) 47

21. Which step number is the following output?
rise not moon gem does big aim 15 with 92 85 63 56 47 31 25
(a) Step V   (b) Step VII
(c) Step IV   (d) Step VIII
(e) There is no such step

22. Which of the following represents the position of '92' in step VI ?
(a) Ninth from the left   (b) Fifth from the right
(c) Sixth from the right   (d) Ninth from the right
(e) Seventh from the left

23. Which words numbers would be at 5th position from the right in the last step?
(a) gem   (b) 63
(c) 56   (d) 85
(e) does

DIRECTIONS (Qs. 24-28) : *Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and and answer the questions.*

Give answer (a) if the data in statement I alone is sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
Give answer (b) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
Give answer (c) if the data either in statement I alone or in statement II alone are sufficient to answer the question; and
Give answer (d) if the data given in both the statements I and II together are not sufficient to answer the question; and
Give answer (e) if the data in both the statements I and II together are necessary to answer the question.

24. How is J related to K?
    I.   J's father P is the brother of N. N is K's wife.
    II.   J is the son of P. P is the brother of N. N is K's wife.
25. On which floor of the building does G stay? (the building has five floor 1, 2, 3, 4, 5.)
    I.   Only the even-numbered floors are occupied and G does not stay on the second floor.
    II.   G does not stay on an odd-numbered floor.
26. How many days did Raju take to complete his assignment?
    I.   Mohit correctly remembers that Raju took more than 3 days less than 9 days to complete his assignment.
    II.   Mina correctly remembers that Raju took more than 7 days less than 11 days to complete his assignment.
27. How is the word 'GATES' coded in the code language?
    I.   'BRICK' is coded as 'LDJSC' and 'PIN' is coded as 'OJQ'
    II.   'WATER' is coded as 'SFUBX' and 'DISH' is coded as 'ITJE'
28. Among A, B, C and D, which school has the highest number of students.
    I.   School A has fewer students than school D.
    II.   School C has fewer students than school D.
29. In Swartkans territory, archaeologists discovered charred bone fragments dating back one million years. Analysis of the fragments, which came from a variety of animals, showed that they had been heated to temperatures no higher than those produced in experimental campfires made from branches of white, stinkwood, the most common tree around Swartkans.
    Which of the following, if true, would, together with the information above, provide the best basis for the claim that the charred bone fragments are evidence of the use of fire by early hominids?
    (a)   The white stinkwood tree is used for building material by the present day inhabitants of Swartkans
    (b)   Forest fires can heat wood to a range of temperatures that occur in campfires
    (c)   The bone fragments were fitted together by the archaeologists to form the complete skeletons of several animals.
    (d)   The bone fragments were found in several distinct layers of limestone that contained primitive cutting tools known to have been used by early hominids
    (e)   None of the above
30. **Statement**
    It has been reported in a recent research report that taller people are found to be happier than those who are relatively shorter.
    Which of the following contradicts the above finding?
    (a)   People are generally truthful when they respond to the questions of such research studies
    (b)   Those people who have a comfortable lifestyle are found to be happier than those who lead a strenuous lifestyle irrespective of their height

    (c)   Shorter people suffer from inferiority complex throughout them life
    (d)   Taller people are found to be more positive in approach to daily chores of lifes.
    (e)   None of the above
31. **Statement**
    Many patients suffering form malaria were administered anti-malarial drug for a week. Some of them did not respond to the traditional drug and their condition deteriorated after four days.
    Which of the following would weaken the findings mentioned in the above statement?
    (a)   Those patients who responded to the traditional drugs and recovered were needed to be given additional does as they reported relapse of symptoms
    (b)   The mosquitoes carrying malaria are found to be resistant to traditional malarial drugs
    (c)   Majority of the patients suffering from malaria responded well to the traditional malarial drugs and recovered from the illness
    (d)   Many drug companies have stopped manufacturing traditional malarial drugs
    (e)   None of the above
32. **Statement**
    The cost of manufacturing cars in state A is 30% less than the cost of manufacturing cars in state B. Even after transportation fee for the differential distances of states A and B and the interstate taxes, it is cheaper to manufacture cars in state B than state A for selling these cars in state C.
    Which of the following supports the conclusion drawn in the above statement?
    (a)   The cost of transportation from state A to state C is more than 30% of the production cost
    (b)   The production costs of cars in state B are lower in comparison to state A
    (c)   Only Entry Tax at state C is more for the products originated in state A
    (d)   Entry Tax at state C is more for the products originated in state B
    (e)   The total of transportation cost of cars from state B to state C and Entry Tax of cars at state C is less than 30% of the production cost of cars in state B
33. **Statement**
    There was a slow decline in number of patients with flu like symptoms visiting various health facilities in the city during the last fortnight.
    Which of the following substantiates the facts mentioned in the above statement?
    (a)   Majority of the people suffering from flu visit the health facilities in the city
    (b)   There has been a continuous increase in the sale of medicines for curing flu in the city limits
    (c)   People have started visiting the crowed places like malls and cinema balls during the last fortnight after cautioned gap of one month.
    (d)   There is a sudden increase in the number of deaths caused by flu like symptoms followed by respiratory complications.
    (e)   None of the above

34. **Statement**

It is reported that during the last fortnight there has been three cases of near miss situation involving two aircrafts over the busy city airport. In all these cases both the aircrafts came perilously close to each other and could avoid collision as the pilots acted just in time.

Courses of action

I. The pilots of all the six aircrafts involved in these incidents should immediately be derostered.

II. Some flights should be diverted to other airports for the next few months to decongest the sky over the city airport.

III. Air traffic controllers of the city airport should be sent for refresher courses in batches to prepare themselves to handle such pressure situation.

(a) Only 1 follows
(b) Only II follows
(c) Only III follows
(d) II and III follows
(e) None of these

DIRECTIONS (Qs. 35-40) : *Read the following information and answer the questions that follow :*

In a Public Sector Undertaking Township, there are five executives – Ambrish, Amit, Rohit, Manu and Tarun. Two of them play Cricket while the other three play different games viz. Football, Tennis and Chess. One Cricket player and a Chess player stay in the third flat, whereas the other three stay in different flats, i.e. 2nd, 4th and 5th. Two of these five players are mechanical engineers while the other three are quality inspector, design engineer and power engineer respectively. The chess player is the oldest in age while one of the cricket players, who plays at the national level, is the youngest in age. The age of the other cricket player, who plays at the regional level, lies between the football player and the chess player. Manu is a regional level player and stays in the 3rd flat while Tarun is a quality inspector and stays in 5th flat. The football player is a design engineer and stays in the 2nd Flat. Amit is a power engineer and plays Chess while Ambrish is the mechanical engineer and plays Cricket at the national level.

35. Who stays in the 4th flat?
(a) Ambrish
(b) Amit
(c) Rohit
(d) Manu
(e) None of these

36. What does Tarun play?
(a) Chess
(b) Football
(c) Cricket
(d) Tennis
(e) None of these

37. Who plays football?
(a) Ambrish
(b) Amit
(c) Rohit
(d) Manu
(e) None of these

38. Agewise, who among the following lies between Manu and Tarun?
(a) Quality inspector
(b) Mechanical engineer
(c) Power engineer
(d) Design engineer
(e) None of these

39. Who stay in the same flat?
(a) Ambrish and Amit
(b) Maim and Tarun
(c) Amit and Manu
(d) Rohit and Tarun
(e) None of these

40. The Chess player is a:
(a) Power engineer
(b) Mechanical engineer
(c) Design engineer
(d) Quality inspector
(e) None of these

DIRECTIONS (Qs. 41-45): *Study the following information carefully and answer the given questions.*

Eight Childhood friends A, B, C, D, E, F, G and H are sitting around a circular table facing the centre, but not necessarily in the same order. Each of them have completed their respected courses viz MBA, MCA, B.Tech, CA, CS, B.Com, Finance and M.Tech.

• There are two persons between those who study MCA and MBA and neither of them sit opposite A.

• C and G are immediate neighbours and neither of them studies M.Tech or MBA.

• A, who studies Finance, sits second to the right of one who studies M.Tech.

• B and E neither study M.Tech or nor sit adjacent to A.

• E studies MBA and sits second to the left of G, who studies CA.

• C does not study MCA.

• The immediate neighbour of E faces C, who sits third to the left of the one who studies Finance.

• F does not study M.Tech.

• Both D and H do not study MCA and B.Tech.

• B studies B.Com while D studies CS.

• B is not an immediate neighbour of A.

41. MCA is related to B.Com in a certain way and MBA is related to M.Tech in the same way. Which of the following is related to B.Tech following the same pattern?
(a) CA
(b) Finance
(c) CS
(d) can't be determined
(e) none of these

42. Who among the following studies MCA?
(a) F
(b) H
(c) E
(d) can't be determined
(e) none of these

43. Who among the following sits third to the right of F?
(a) E
(b) G
(c) C
(d) B
(e) none of these

44. Which of the following statements is/are true about E?
(a) E is sitting opposite H.
(b) E studies M.Tech
(c) E is not an immediate neighbour of B
(d) All are true
(e) none of these

45. Which of the following courses is studied by C?
(a) CA
(b) B.Tech
(c) CS
(d) MBA
(e) None of these

DIRECTIONS (Qs. 46–49): *Read the following information carefully to answer the question:*

P X Q means "P is sister of Q"
P ÷ Q means " P is mother of Q"
P + Q means " P is brother of Q"
P – Q means " P is father of Q"

46. Which of the following represent W is grandfather of H?
    (a) W + T - H   (b) W ÷ T – H
    (c) W × T + H   (d) W ÷ T + H
    (e) None of these

47. Which of the following represent "M is nephew of R"?
    (a) M ÷ T – R   (b) R ÷ T – M
    (c) R × T ÷ M × J   (d) R ÷ T – M + J
    (e) None of these

48. How T is related to S "W ÷ T – H + V – S"?
    (a) sister   (b) mother
    (c) aunt   (d) uncle
    (e) None of these

49. The expression means "S ÷ T – H × V – N"?
    (a) S is grandmother of N
    (b) S is great grandmother of N
    (c) S is mother of V
    (d) N is grand son of S
    (e) None of these

50. **Statement:** Exporters in the capital are alleging that commercial banks are violating a Reserve Bank of India directive to operate a post shipment export credit denominated in foreign currency at international rates from January this year.
    Courses of Action:
    I. The officers concerned in the commercial banks are to be suspended.
    II. The RBI should be asked to stop giving such directives to commercial banks.
    (a) Only I follows   (b) Only II follows
    (c) Either I or II follows   (d) Neither I nor II follows
    (e) Both I and II follow

DATA ANALYSIS AND INTERPRETATION

DIRECTIONS (Qs. 51-55) : *Study the table carefully to answer the questions that follow.*

Number of people Liking Eight Eifferent Teams in IPL-5 and the percentages of Men, Women and Children Liking these Tearms

Teams	Total number of people	Men	Women	Children
CSK	45525	20	44	36
DD	36800	39	33	28
DC	56340	45	30	25
MI	62350	38	28	34
RR	48300	21	44	35
RCB	35580	15	35	50
KXI	56250	24	36	40
KKR	64000	16	54	30

(Header: Total number of people | Percentage of Men | Women | Children)

51. What is the approximate average number of women liking all the teams?
    (a) 16707   (b) 16686
    (c) 16531   (d) 16668
    (e) None of these

52. The total number of women liking RR forms approximately what per cent of the total number of women liking all the teams?
    (a) 11   (b) 15
    (c) 20   (d) 20
    (e) None of these

53. What is the total number of children liking CSK?
    (a) 14085   (b) 16389
    (c) 20031   (d) 14850
    (e) None of these

54. What is the ratio of total number of men liking DD to those liking RR?
    (a) 69 : 49   (b) 7 : 5
    (c) 208 : 147   (d) 70 : 52
    (e) None of these

55. The number of men liking DC forms forms what per cent of those liking RCB? (rounded off to two digits after decimal).
    (a) 21.05%   (b) 475.04%
    (c) 25.56%   (d) 25%
    (e) None of these

DIRECTIONS (Qs. 56-60) : *Study the following table carefully and answers the questions given below it.*

Statistics of the Quantity produced and quantity Sold by Aishwarya Co Limited for the Five Months. The Stock at the Beginning of June is 75 units.

Months	Quantify produced	Quantity sold
June	300	350
July	250	275
August	200	175
September	200	200
October	325	300

56. During which month, the company had the least stock to began with?
    (a) June   (b) July
    (c) August   (d) October
    (e) None of these

57. What was the stock at the beginning of September?
    (a) 35   (b) 15
    (c) 25   (d) 20
    (e) None of these

58. What should be the minimum stock at the beginnings of June, if the company has to supply smoothly for all the five months?
    (a) 45 units   (b) 35 units
    (c) 25 units   (d) 30 units
    (e) None of these

59. During which month did the company have the highest sales?
    (a) June   (b) July
    (c) August   (d) October
    (e) None of these

60. What is the stock at the beginning of July?
 (a) 50 　　　　　　　　(b) 25
 (c) 100 　　　　　　　(d) 75
 (e) None of these

DIRECTIONS (Qs. 61-65) : *The circle graph given here shows the spending for a country on various sports during a particular year. Study the graph carefully and answer the questions given below it.*
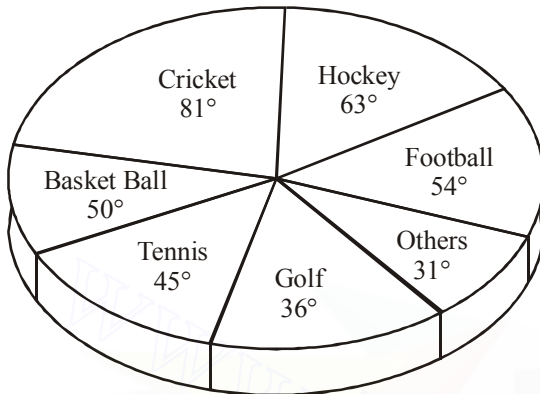
61. What per cent of total expenditure is spent on tennis?

 (a) $12\frac{1}{2}\%$ 　　　　　(b) $22\frac{1}{2}\%$
 (c) 25% 　　　　　　　(d) 45%
 (e) 40%

62. How much per cent more is spent on hockey than that on golf?
 (a) 27% 　　　　　　　(b) 35%
 (c) 37.5% 　　　　　(d) 75%
 (e) None of these

63. If the total amount spend on sports during the year be ₹18000000, then the amount spent on basketball exceeds on Tennis by
 (a) ₹250000 　　　　(b) ₹360000
 (c) ₹375000 　　　　(d) ₹410000
 (e) ₹30000

64. How many per cent less is spent on football than that on Cricket?

 (a) $22\frac{2}{9}\%$ 　　　　　(b) 27%

 (c) $33\frac{1}{3}\%$ 　　　　　(d) $37\frac{1}{7}\%$

 (e) 29%

65. If the total amount spent on sports during the year was ₹2 crore, the amount spent on cricket and hockey together was
 (a) ₹800000 　　　　(b) ₹8000000
 (c) ₹12000000 　　(d) ₹16000000
 (e) None of these

DIRECTIONS (Qs. 66-70): *Answer the questions based on the following two graphs, assuming that there is not fixed cost component and all the units produced are sold in the same year.*

Unit Price
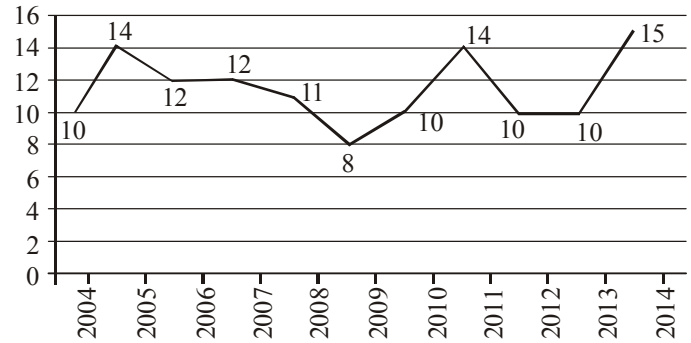
Revenue — Profit
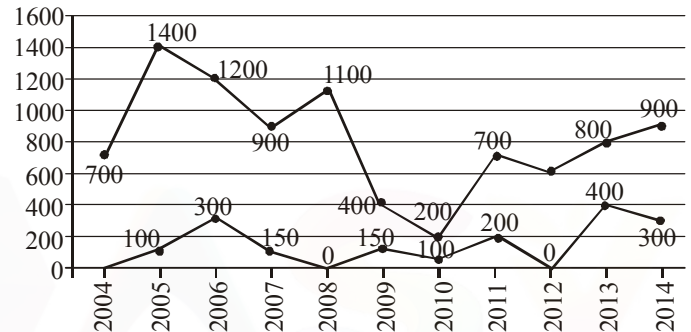
66. In which year per unit cost in highest?
 (a) 2006 　　　　　　(b) 2005
 (c) 2009 　　　　　　(d) 2011
 (e) 2012

67. What is the approximate average quantity sold during the period 2004-2014?
 (a) 64 units 　　　　(b) 70 units
 (c) 77 units 　　　　(d) 81 units
 (e) 87 units

68. If volatility of a variable during 2000-2014 is defined as

 $\dfrac{\text{Maximum value} - \text{Minimum value}}{\text{Average value}}$, then which of the following is true?
 (a) Price per unit has highest volatility
 (b) Cost per unit has highest volatility
 (c) Total profit has highest volatility
 (d) Revenue has highest volatility
 (e) None of the above

69. If the price per unit decrease by 20% during 2004-2008 and cost per unit increase by 20% during 2009-2014, then during how many number of years there is loss?
 (a) 3 yr 　　　　　　(b) 4 yr
 (c) 5 yr 　　　　　　(d) 7 yr
 (e) None of these

70. If the price per unit decrease by 20% during 2000-2004 and cost per unit increase by 20% during 2005-2010, then the cumulative profit for the entire period 2000-2010 decrease by
 (a) ₹1650 　　　　　(b) ₹1550
 (c) ₹1300 　　　　　(d) ₹1250
 (e) Data inadequate

DIRECTIONS (Qs. 71-75) : *Study the following graph carefully to answer the question that follow.*

Number of foreign tourists who visited three different places in five different days

— Golden Temple —— Wagha Border —▲— Taj Mahal
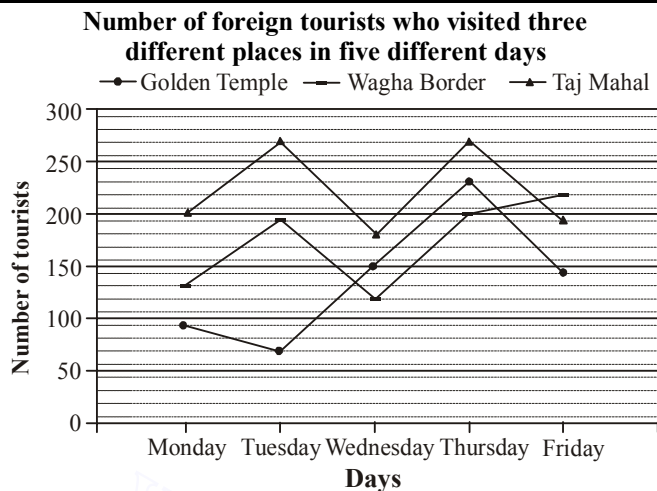
Days

71. What is the average number foreign tourists who visited Wagha Border on all the days together?
    (a) 184   (b) 172
    (c) 186   (d) 174
    (e) None of these

72. Total number of foreign tourists who visited all three places on Tuesday together is what per cent of the total number foreign tourists who visited Wagha Border on Monday and Wednesday together?
    (a) 168%   (b) 124%
    (c) 112%   (d) 224%
    (d) 212%

73. On which day was the total number of foreign tourists who visited all the three places together second lowest?
    (a) Monday   (b) Tuesday
    (c) Wednesday   (d) Thursday
    (e) Friday

74. What is the respective ratio between the number of foreign tourists who visited Taj Mahal on Thursday and the number of foreign tourists who visited Golden Temple on Friday?
    (a) 14:9   (b) 8:13
    (c) 13:8   (d) 13:7
    (e) None of these

75. On which day was the different between the number of foreign tourists who visited Taj Mahal and Golden Temple, second highest?
    (a) Monday   (b) Tuesday
    (c) Wednesday   (d) Thursday
    (e) Friday

DIRECTIONS (Qs. 76-80): *Study the information carefully to answer the following questions.*

There are 7200 students in an engineering college. The ratio of boys of girls is 7:5, respectively. All the students are enrolled in six different specialization viz., B.Tech. (electronics), B.Tech. (Computer science), B.Tech. (Mechanical), B. Tech. (Aerospace), B.Tech. (nano technology), B.Tech. (civil). 22% of the total students are in B. Tech. (nano technology). 16% of the girls are in B.Tech. (computer science). 18% of boys are in B.Tech. (Mechanical). Girls in B.Tech. (civil) are 30% of the girls in B. Tech. (computer science). 15% of boys are in B. Tech. (electronics). Boys in B. Teach (Computer Science) are 50% of the girls in the same 15% of girls are in B. Tech. (aerospace). The ratio of boys to girls in B.Tech. (civil) is 3:1 respectively. 24% of the total numbers of students are in B.Tech. (electronics). The ratio of boys to girls in B.Tech. (aerospace) is 12:5, respectively.

76. What is the total number of students enrolled in B.Tech. (mechanical)?
    (a) 1062   (b) 1530
    (c) 1584   (d) 1728
    (e) 1800

77. Number of girls enrolled in B.Tech. (electronics) forms approximately. What per cent of total number of students in the college?
    (a) 7%   (b) 13%
    (c) 15%   (d) 22%
    (e) 24%

78. What is the total number of girls enrolled in B.Tech. (nano technology)?
    (a) 144   (b) 306
    (c) 365   (d) 480
    (e) 522

79. Number of boys enrolled in B. Tech. (aerospace) forms, what per cent of the total number of girls enrolled in B.Tech. (computer science)?
    (a) 187.5%   (b) 200%
    (c) 212.5%   (d) 225%
    (e) 232.5%

80. What is the total number of boys enrolled in B. Tech. (civil)?
    (a) 240   (b) 432
    (c) 630   (d) 756
    (e) 810

DIRECTIONS (Qs. 81-85): *In the following questions three equations numbered I, II and III are given. You have to solve all the equations either together or separately, or two together and one separately, or by any other method and—*

Give answer If
(a) $x < y = z$ (b) $x \leq y < z$
(c) $x < y > z$ (d) $x = y > z$
(e) $x = y = z$ or if none of the above relationship is established

81. I. $7x + 6y + 4z = 122$
    II. $4x + 5y + 3z = 88$
    III. $9x + 2y + z = 78$

82. I. $7x + 6y = 110$
    II. $4x + 3y = 59$
    III. $x + z = 15$

83. I. $x = \sqrt{\left[(36)^{1/2} \times (1296)^{1/4}\right]}$
    II. $2y + 3z = 33$
    III. $6y + 5z = 71$

84. I. $8x + 7y = 135$
     II. $5x + 6y = 99$
     III. $9y + 8z = 121$
85. I. $(x + y)^3 = 1331$
     II. $x - y + z = 0$
     III. $xy = 28$

DIRECTIONS (Qs. 86-90) : *Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read the question and both the statements and -*

Give answer (a) if the data in **statement I alone are sufficient** to answer the question, while the data in **statement II alone are not sufficient** to answer the question.

Give answer (b) if the data in **statement II alone are sufficient** to answer the question, while the data in **statement I alone are not sufficient** to answer the question.

Give answer (c) if the data **either in statement I alone or in statement II alone are sufficient** to answer the question.

Give answer (d) if the data even in both the **statements I and II together are not sufficient** to answer the question.

Give answer (e) if the data in both the statements I and II together are necessary to answer the question.

86. Train 'A' running at a certain speed crosses another train 'B' running at a certain speed in the opposite direction in 12 seconds. What is the length of train 'B'?
     I.   The length of both the trains together is 450 metres.
     II.   Train 'A' is slower than train 'B'.
87. Area of a rectangle is equal to the area of a right angled triangle. What is the length of the rectangle ?
     I.   The base of the triangle is 40 cms.
     II.   The height of the triangle is 50 cms.
88. What was the total compound interest on a sum after three years ?
     I.   The interest after one year was ₹ 100/- and the sum was ₹ 1,000/-.
     II.   The difference between simple and compound interest on a sum of ₹ 1,000/- at the end of two years was ₹ 10/-.
89. What is the two digit number where the digit at the unit place is smaller ?
     I.   The difference between the two digits is 5.
     II.   The sum of the two digits is 7.
90. What is the speed of the boat in still water ?
     I.   It takes 2 hours to cover distance between A and B downstream.
     II.   It takes 4 hours to cover distance between A and B upstreams.

DIRECTIONS (Qs. 91-95) : *What should come in place of question mark (17) in the following number series ?*

91. 13 14 30 93 376 1885 ?
     (a) 10818   (b) 10316
     (c) 11316   (d) 11318
     (e) None of these

92. 46 9 13.5 20.25 30.375?
     (a) 40.25   (b) 45.5625
     (c) 42.7525   (d) 48.5625
     (e) None of these
93. 400 240 144 86.4 51.84 31.104 ?
     (a) 19.2466   (b) 17.2244
     (c) 16.8824   (d) 18.6625
     (e) None of these
94. 9 4.5 4.5 6.75 13.5 33.75?
     (a) 101.25   (b) 103.75
     (c) 99.75   (d) 105.50
     (e) None of these
95. 705 728 774 843 935 1050 ?
     (a) 1190   (b) 1180
     (c) 1185   (d) 1187
     (e) None of these

DIRECTIONS (Qs. 96-97) : *Read the information given below and answer the questions that follow :*

The tournament for ABC Cup is arranged as per the following rules: in the beginning 16 teams are entered and divided in 2 groups of 8 teams each where the team in any group plays exactly once with all the teams in the same group. At the end of this round top four teams from each group advance to the next round in which two teams play each other and the losing team goes out of the tournament. The rules of the tournament are such that every match can result only in a win or a loss and not in a tie. The winner in the first round takes one point from the win and the loser gets zero. In case of tie on a position the rules are very complex and include a series of deciding measures.

96. A red light flashes 3 times per minute and a green light flashes 5 times in two minutes at regular intervals. If both lights start flashing at the time, how many times do they flash together in each hour?
     (a) 30   (b) 24
     (c) 20   (d) 60
     (e) None of these
97. Ashish is given Rs. 158 in one rupee denominations. He has been asked to allocate them into a number of bags such that any amount required between Re. 1 and Rs. 158 can be given by handing out a certain number of bags without opening them. What is the minimum number of bags required?
     (a) 11   (b) 12
     (c) 13   (d) 15
     (e) None of these

DIRECTIONS (Qs. 98-100) : *These questions are based on the information and graph given below.*

These questions are based on the price fluctuations of four commodities - arhar, pepper, sugar, and gold during February - july 1999 as described in the figures below :

Arhar (Friday quotations)

Pepper (Friday quotations)

Sugar (Friday quotations)

Gold (Friday quotations)
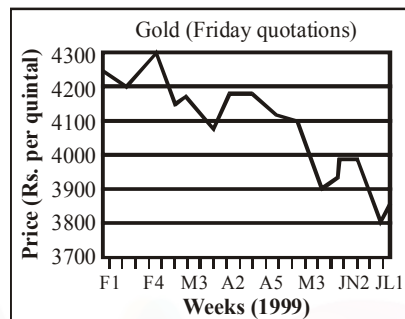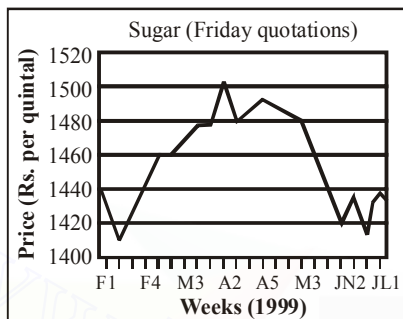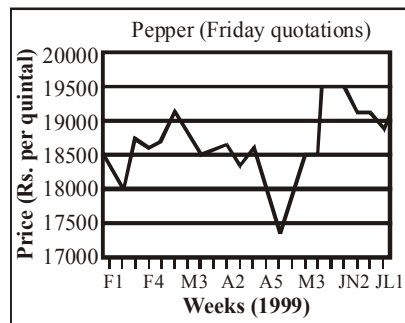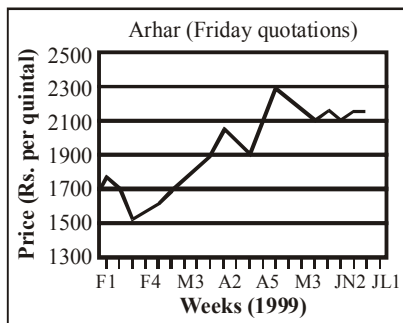
98. Price change of a commodity is defined as the absolute difference in ending and beginning prices expressed as a percentage of the beginning. What is the commodity with the highest price changes
    (a) Arhar   (b) Pepper
    (c) Sugar   (d) Gold
    (e) None of these

99. Price volatility (PV) of a commodity is defined as follows PV = (highest price during the period- lowest price during the period)/ average price during the period and

    $$\text{Average price} = \frac{\text{Highest price} + \text{lowest price} + \text{ending price} + \text{beginning price}}{4}$$

    What is the commodity with the lowest price volatility?
    (a) Arhar   (b) Pepper
    (c) Sugar   (d) Gold
    (e) None of these

100. Mr. X, a fund manager with an investment company invested 25% of his funds in each of the four commodities at the beginning of the period. He sold the commodities at the end of the period. His investments in the commodities resulted in
    (a) 17% profit   (b) 5.5% loss
    (c) no profit, no loss (d) 5.4% profit
    (e) None of these

ENGLISH LANGUAGE

DIRECTIONS (Qs. 101-105): *Read each sentence to find out whether there is any error in it. The error, if any, will be in one part of the sentence, the name of the part is the answer. If there is no error, the answer is (e).*

101. She asked me (a)/ Where I was going to (b)/ and what I had done (c)/ the previous day. (d)/ No error (e)

102. Yesterday in the night (a)/ he came (b)/ by bus (c)/ and was disturbed. (d)/ No error (e)

103. Within two hours (a)/ we will approach (b)/ near Agra (c)/ by car. (d)/ No error (e)

104. Throughout the whole year (a)/ there was (b)/ not a single day (c)/ without any incidence of violence. (d)/ No error (e)

105. The P.M. said (a)/ that it was his decision (b)/ and that nobody (c)/ could get it changed. (d)/ No error (e)

DIRECTIONS (Qs. 106-110): *In each of the following sentences, there are two blank spaces. Below each sentence there are five pairs of words denoted by numbers (1), (2), (3), (4) and (5). Find out which pair of words can be filled up in the blanks in the sentences in the same sequence to make the sentence grammatically correct.*

106. The _____ you work, the _____ for your prosperity.
    (a) more, best   (b) least, best
    (c) harder, better   (d) decent, brightest
    (e) better, brighter

107. _____ you need a duplicate ration card, you must submit the _____ of your residence.
    (a) Should, proof   (b) If, numbers
    (c) Had guarantee   (d) Do, number
    (e) Would, document

108. It was my _____ that _____ to the serious problem.
    (a) desire, brought   (b) negligence, led
    (c) fault, lauded   (d) mistake, subjected
    (e) decision, put

109. Because he was _____ he left the party earlier and _____ home.
    (a) tired, brought   (b) precarious, approached
    (c) preoccupied, sent   (d) ill, contacted
    (e) unwell, returned

110. An impartial person _____ others without any _____ .
    (a) likes, reservation   (b) judges, bias
    (c) blames, prudence   (d) praises, point
    (e) wishes, malice

DIRECTIONS (Qs. 111-115): *Which of the phrases (a), (b), (c) and (d) given below each sentence should replace the phrase printed in **bold** in the sentence to make it grametically correct ? If the sentence is correct as it is given and no correction is required mark (e) as the answer.*

111. The Governor has a good collection of **paintings adoring the walls** of the Raj Bhavan.
    (a) painting adoring the wall
    (b) painting adoring the walls
    (c) painting sticking the walls
    (d) painting adorning the walls
    (e) No correction required

112. The principals and teachers **at the selected English Medium** School were contacted.
    (a) of the selected English Medium
    (b) at the select English Medium
    (c) upon the selected English Medium
    (d) of the section English Medium
    (e) No correction required

113. Besides these norms, **the data was also analyzed** to form the sub groups.
    (a) the data had analyzed also
    (b) the data were also concluded
    (c) the data were also analyzed
    (d) an data were analyzed also
    (e) No correction required

114. He does not know the Mount Everest **is the Most highest mountain** peak.
    (a) is a more highest mountain
    (b) is the most high mountain
    (c) is the higher mountain
    (d) is the highest mountain
    (e) No correction required

115. Walking in the morning in open air **is being observed to be better** for the health of the people who live in congestion.
    (a) was observer the best
    (b) hand been proved far better
    (c) has been observed good
    (d) was proved far better
    (e) No correction required

DIRECTIONS (Qs. 116-125): *In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, four words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.*

Delinking of jobs 116 degrees is one of the salient 117 of our education 118. There has been a steep 119 in 120 in the academic field in recent years. There is a 121 of degree holders in the country. As a result, university degrees have lost their value and charm while the number of students in colleges and universities of the country has been steadily 122. Consequently, thousands of graduates and postgradutes come out of these institutions and stand in 123 waiting to get some 124 jobs 125 in the country.

116.(a) to   (b) with
    (c) from   (d) by
    (e) None of these

117.(a) factors   (b) features
    (c) reasons   (d) methods
    (e) None of these

118.(a) process   (b) system
    (c) procedures   (d) policy
    (e) None of these

119.(a) fall   (b) rise
    (c) down   (d) decrease
    (e) None of these

120.(a) evaluation   (b) assessment
    (c) result   (d) competence
    (e) None of these

121.(a) flood   (b) growth
    (c) increase   (d) slope
    (e) None of these

122.(a) falling   (b) diminishing
    (c) rising   (d) growing
    (e) None of these

123.(a) lines   (b) long
    (c) rows   (d) queues
    (e) None of these

124.(a) managerial   (b) nice
    (c) prestigious   (d) available
    (e) None of these

125.(a) vacate   (b) posted
    (c) created   (d) available
    (e) None of these

DIRECTIONS (Qs. 126-130): *There are six sentences marked S_1, S_6, P, Q, R, S. The positions of S_1 and S_6 are fixed as the first and last sentence of the passage. You are required to choose one of the five alternatives given below every passage which would be most logical sequence of the sentences in the passage.*

126. S_1 : There are numerous kinds of superstitions in different parts of the country.
    S_6 : A dog's howling predicts death– this is a typical superstition.
    P : But people go on respecting it through force of blind custom.
    Q : Most of them have a bearing on 'luck'–good or bad.
    R : Superstitions usually hae their origin in fear and ignorance.
    S : Nobody remembers now how a superstition first started in remote ages.

The proper sequence should be
(a) QPRS   (b) RSPQ
(c) RSQP   (d) QSPR
(e) PRSQ

127. S_1 : A spider's web, after a shower of rain, is a very beautiful thing.
S_6 : They are also feared because their bites may have unpleasant effects like a rash on the skin.
P : This party explains why spiders are thoroughly disliked.
Q : But no poet has ever sung of the beauty of the spiders, for most spiders are not beautiful.
R : On the contrary, most of them are rather unattractive, if not ugly!
S : Poets have sung about the beauty of the spider's webs, comparing the water drops on them to ropes of pearls.

The proper sequence should be
(a) SPQR   (b) QSRP
(c) QRSP   (d) SQRP
(e) PQRS

128. S_1 : Unhappiness and discontent spring not only form poverty.
S_6 : We suffer from sickness of spirit and hence we should discover our roots in the internal.
P : Man is a strange creature fundamentally different from other animals.
Q : If they are undeveloped and unsatisfied, he may have all the comforts of the wealth, but will still feel that life is not worthwhile.
R : He has far horizons invariable hopes, spiritual powers.
S : What is missing our age is the soul, there is nothing wrong with the body.

The proper sequence should be
(a) PRQS   (b) SPRQ
(c) SPQR   (d) PRSQ
(e) QSRP

129. S_1 : On vacation in Tangier, Morocco, my friend and I sat down at a street cafe.
S_6 : Finally a man walked over to me and whispered, " Hey buddy .... This guy is your waiter and he wants your order."
P : At one point, he bent over with a big smile, showing me a single gold tooth and dingy fez.
Q : Soon I felt the presence of someone standing alongside me.
R : But this one wouldn't budge.
S : We had been cautioned about beggars and were told to ignore them.

The proper sequence should be
(a) SQRP   (b) SQPR
(c) QSRP   (d) QSPR
(e) PRQS

130. S_1 : In 1934, William Holding published a small volume of peoms.
S_6 : But Lord of the flies which came out in 1954 was welcomed as 'a most absorbing and instructive tale'.
P : During the World War II (1939-45) he joined the Royal Navy and was present at the sinking of the Bismarck.

Q : He returned to teaching is 1945 and gave it up in 1962, and is now a full-time writer.
R : In 1939, he married and started teaching at Bishop Wordsworth's School in Salisbury.
S : At first his novels were not accepted.

The proper sequence should be
(a) RPQS   (b) RPSQ
(c) SRPQ   (d) SQPR
(e) RQPS

DIRECTIONS (Qs. 131-150): *Read the following information and answer the questions that follows*:

PASSAGE-1

True, it is the function of the army to maintain law and order in abnormal times. But in normal times there is another force that compels citizens to obey the laws and to act with due regard to the rights of others. The force also protects the lives and the properties of law abiding men. Laws are made to secure the personal safety of its subjects and to prevent murder and crimes of violence. The are made to secure the property of the citizens against theft and damage to protect the rights of communities and castes to carry out their customs and ceremonies, so long as they do not conflict with the rights of other. Now the good citizen, of his own free will obey these laws and he takes care that everything he does is done with due regard to the rights and well-being of others. But the bad citizen is only restrained from breaking these laws by fear of the consequence of his actions. And the necessary steps to compel the bad citizen to act as a good citizen are taken by this force. The supreme control of law and order in a state is in the hands of a Minister who is responsible to the State Assembly and acts through the Inspector General of Police.

131. The expression 'customs and ceremonies' means
(a) fairs and festivals.
(b) habits and traditions.
(c) usual practices and religious rites.
(d) superstitions and formalities.
(e) None of these

132. A suitable title for the passage would be :
(a) the function of the army.
(b) laws and the people's rights.
(c) the fear of the law and citizen's security.
(d) the functions of the police.
(e) None of these

133. Which of the following is not implied in the passage?
(a) Law protects those who respect it.
(b) Law ensures people's religious and social rights absolutely and unconditionally.
(c) A criminal is deterred from committing cirmes only for fear of the law.
(d) The forces of law help to transform irresponsible citizens into responsibile ones.
(e) None of these

134. According to the writer, which one of the following is not the responsibility of the police?
(a) To protect the privileges of all citizens.
(b) To check violent activities of citizens.

(c) To ensure peace among citizens by safeguarding individual rights.

(d) To maintain peace during extraordinary circumstances.

(e) None of these

135. Which of the following reflects the main thrust of the passage.

(a) It deals with the importance of the army in maintaining law and other.

(b) It highlights role of the police as superior to that of the army.

(c) It discusses the roles of the army and the police in different circumstances.

(d) It points to the responsibility of the Minister and the Inspector General of Police.

(e) None of thesess

136. "They are made to secure the property of citizens against theft and damage", means that the law :

(a) helps in recovering the stolen property of the citizens.

(b) assist the citizens whose property has been stolen or destroyed.

(c) initiate process against offenders of law.

(d) safeguard people's possessions against being stolen or lost.

(e) None of thesess

137. Out of the following which one has the opposite meaning to the word 'restrained' in the passage?

(a) Promoted   (b) Accelerated

(c) Intruded   (d) Inhibited

(e) None of thesess

138. Which one of the following statement is implied in the passage?

(a) Peaceful citizens seldom violate the law, but bad citizens have to be restrained by the police.

(b) Criminals, who flout the law, are seldom brought to book.

(c) The police hardly succeed in converting bad citizens into good citizens.

(d) The police check the citizens, whether they are good or bad, and stop them from violating the law.

(e) None of thesess

139. Which of the following statement expresses most accurately the idea contained in the first sentence?

(a) It is the job of the army to ensure internal peace at all times.

(b) It is the police that should always enforce law and order in the country.

(c) Army and the police ensure people's security through combined operations.

(d) It is in exceptional circumstances that the army has to ensure peace in the country.

(e) None of thesess

140. The last sentence of the passage implies that

(a) The Inspector General of Police is the sole authority in matters of law and order.

(b) In every State maintenance of public peace is under the overall control of the responsible Minister.

(c) A Minister and a responsible State, Assembly exercise direct authority in matters pertaining to law and order.

(d) The Inspector General of Police is responsible to the State Assembly for maintaining law and order.

(e) None of thesess

PASSAGE - 2

A recent report in News Week says that in American colleges, students of Asian origin outperform not only the minority group students but the majority whites as well. Many of these students must be of Indian origin, and their achievement is something we can be proud of. It is unlikely that these talented youngsters will come back to India and that is the familiar brain drain problem. However recent statements by the nation's policy-makers indicate that the perception of this issue is changing. 'Brain bank' and not 'brain drain' is the more appropriate idea, they suggest since the expertise of indians abroad is only deposited in other places and not lost.

This may be so, but this brain bank, like most other banks, is one that primarily serves customers in its neighborhood. The skills of the Asians now excelling in America's colleges will mainly help the U.S.A.. No matter how significant, what non-resident Indians do for India and what their counterparts do for other Asian lands is only a by-product.

But it is also necessary to ask, or be remained, why Indians study fruitfully when abroad. The Asians whose accomplishments News Week records would have probably has a very different tale if they had studied in India. In America they found elbow room, books and facilities not available and not likely to be available here. The need to prove themselves in their new country and the competition of an international standard they faced there must have cured mental and physical laziness. But other things helping them in America can be obtained here if we achieve a change is social attitudes, specially towards youth.

We need to learn to value individuals and their unique qualities more than conformity and respectability. We need to learn the language of encouragement to add to our skill in flattery.

141. Among the many groups of students in American colleges, Asian students.

(a) are often written about in magazines like News Week.

(b) are most successful academically

(c) have proved that they are as good as the whites.

(d) have only a minority status like the blacks.

(e) None of these

142. The student of Asian origin in America include :

(a) a fair number from India.

(b) a small group from India.

(c) persons from India who are very proud.

(d) Indians who are the most hard working of all.

(e) None of thesess

143. In general, the talented young Indians studying in America:

(a) have a reputation for being hard working

(b) have the opportunity to contribute to India's development.

(c) can solve the brain drain problem because of recent changes in policy.

(d) will not return to pursue their careers in India.

(e) None of thesess

144. There is talk now of the 'brain bank' This idea :
    (a) is a solution to the brain drain problem
    (b) is a new problem caused parly by the brain drain
    (c) is a new way of looking at the role of qualified Indians living abroad.
    (d) is based on a plan to utilize foreign exchange remittances to stimulate research and development.
    (e) None of thesess

145. The brain bank has limitations like all banks in the sense that:
    (a) a bank's services go mainly to those near it.
    (b) small neighbourhoods banks are not visible in this age of multinationals.
    (c) only what is deposited can be withdrawn and utilized.
    (d) no one can be forced to put his assets in a bank.
    (e) None of thesess

146. The author feels that what non-resident Indians do for India:
    (a) will have many useful side effects.
    (b) will not be their main interest and concern.
    (c) can benefit other Asian countries as a by-product.
    (d) can American colleges be of service to the world community.
    (e) None of thesess

147. The performance of Indians when they go to study in the West :
    (a) shows the fruits of hardwork done by school teachers in India.
    (b) should remind us that knowledge and wisdom are not limited by the boundaries of race and nation.
    (c) is better than people in the West expect of non-whites.
    (d) is better than what it would have been if they had studied in India.
    (e) None of thesess

148. The high level of competition faced by Asian students in America.
    (a) helps them overcome their lazy habits.
    (b) makes them lazy since the facilities there are good.
    (c) makes them worried about failing.
    (d) helps them prove that they are as good as whites.
    (e) None of thesess

149. The author feels that some of the conditions other than the level of facilities that make the West attractive.
    (a) are available in India but young people do not appreciate them.
    (b) can never be found here because we believe in conformity.
    (c) can be created if our attitudes and values change.
    (d) can also give respectability to our traditions and customs.
    (e) None of thesess

150. One of the ways of making the situation in India better would be
    (a) to eliminate flattery from public life.
    (b) to distinguish between conformity and respectability.
    (c) to give appreciation and not be tightfisted.
    (d) to encourage people and no merely flatter them.
    (e) None of thesess

GENERAL AWARENESS

151. PM Narendra Modi launched which bank in India?
    (a) HDFC   (b) ICICI
    (c) SBI   (d) PNB
    (e) Indian

152. LIC (Life Corporation of India) started business in which country?
    (a) Nepal   (b) Myanmar
    (c) Bangladesh   (d) Bhutan
    (e) Sri Lanka

153. Who is the CEAT cricketer of the year 2015?
    (a) M S Dhoni   (b) Rahul Dravid
    (c) Virat Kholi   (d) Kumar Sangkkara
    (e) None of these

154. Where is Jim Corbett National Park is located?
    (a) Uttar Pradesh (b) Odisha
    (c) Bihar   (d) Madhya Pradesh
    (e) Uttarakhand

155. On which river Omkareswar dam is located?
    (a) Tapti   (b) Ravi
    (c) Ganga   (d) Narmada
    (e) Satluj

156. Which country recently launched the first ATM with face recognition?
    (a) China   (b) Nepal
    (c) India   (d) Sri Lanka
    (e) Bangladesh

157. What is Full Form of BIOS?
    (a) Basic Investment/ Output System
    (b) Basic In/ out System
    (c) Basic Input/ Output System
    (d) Basic Input/ Output Service
    (e) None of these

158. Agartala is the capital of which state ?
    (a) Tripura   (b) Assam
    (c) Mizoram   (d) Odisha
    (e) Nagaland

159. Volkswagen Group and its subsidiaries, is a _____ multinational automotive manufacturing company.
    (a) British   (b) American
    (c) Chinese   (d) German
    (e) Japanese

160. In the Balance of Payment (BOP), the transfer of payment is included in which of the following ?
    (a) Current Account
    (b) Capital Account
    (c) Savings Accounts under Govt. Schemes
    (d) Official Reserve Accounts
    (e) All of them

161. Who has been selected as head coach of India U-19?
    (a) Rahul Dravid (b) Sachin Tendulkar
    (c) Saurabh Gaguly (d) Virendra Sehwag
    (e) None of these

162. Where is Katasraj temple located?
    (a) India   (b) Pakistan
    (c) Afganistan   (d) Nepal
    (e) Bangladesh

163. Which of the following is not a part of Money Market?
    (a) Treasury Bill   (b) Commercial Papers
    (c) Mutual Funds   (d) Certificate of Deposits
    (e) None of these

164. The Nobel Prize in Chemistry 2014 was awarded _____.
    (a) Eric Betzig   (b) Stefan W. Hell
    (c) William E.Moerner (d) All of the above
    (e) None of these

165. Land Border Agreement between India and Bangladesh was the _____.
    (a) 120th amendment   (b) 100th amendment
    (c) 117th amendment   (d) 112th amendment
    (e) None of these

166. The sixty-eighth session of the World Health Assembly (WHA)took place in _____ 18-26 May 2015.
    (a) Geneva   (b) Rome
    (c) Paris   (d) Washington DC
    (e) None of these

167. What term is used for maximum capital which the company can raise in its life time?
    (a) Authorized Capital (b) Registered Capital
    (c) Nominal Capital   (d) All of them
    (e) None of these

168. Which state government approved mandatory Global Positioning System (GPS) in all public transport vehicles from June 2015?
    (a) Delhi   (b) Madhya Pradesh
    (c) Odisha   (d) Maharashtra
    (e) Punjab

169. China signed a currency swap deal with which country?
    (a) Sri Lanka   (b) Russia
    (c) India   (d) Chile
    (e) None of these

170. The Concept of 'Universal Banking' was implemented in India on the recommendations of:
    (a) Abid Hussai Committee
    (b) R H Khan Committee
    (c) S Padmanabhan Committee
    (d) YH Malegam Committee
    (e) None of these

171. Who among the following is the head of the committee formed by SEBI to frame a single set of guidelines for all types of foreign investors?
    (a) Prabhat Kumar   (b) T.R. Prasad
    (c) K.M. Chandrashekhar (d) Kamal Pande
    (e) None of these

172. Largest shareholder (in percentage shareholding) of a nationalized bank is.
    (a) RBI   (b) NABARD
    (c) LICI   (d) Govt. of India
    (e) IBA

173. Which of the following organization finance the Rural Infrastructure Development Fund?
    (a) NABARD   (b) SEBI
    (c) SIDBI   (d) RBI
    (e) Govt. of India

174. Who is the author of the book 'Odyssey of My Life'?
    (a) Karan Singh   (b) Kwasi Kwarteng
    (c) James Astill   (d) Shivraj V Patil
    (e) None of these

175. World Photography day is observed on :
    (a) 19th August   (b) 22nd August
    (c) 20th August   (d) 17th August
    (e) 16th August

176. Which of the statement on Islamic banking is incorrect?
    (A) Islamic banking is only for Muslims
    (B) Islamic banking activity do not allow paying and receiving of interest
    (C) Islamic banking promotes the principle of profit sharing between banking institution and depositor
    (a) Only A   (b) Only B
    (c) Only C   (d) Both B and C
    (e) None of these

177. The difference between the outflow and inflow of foreign currency is known as ___
    (A) Foreign Exchange Reserves
    (B) Current Account Deficit
    (C) Fiscal Deficit
    (D) Balance of Payments
    (a) Only A   (b) Only B
    (c) Only C   (d) Only D
    (e) None of these

178. NABARD (National Bank for Agriculture and Rural Development) established JLG to extract the productive capability from rural population. JLG stands for ?
    (a) Junior Link Group (b) Join Life Group
    (c) Joint Line Group   (d) Joint Liability Group
    (e) None of these

179. What is MZM in money market?
    (a) Money with highest return
    (b) Money with zero maturity
    (c) Money with sovereign guarantee
    (d) Monetary base or total currency
    (e) None of these

180. A person who used his or expertise to gain access to other peoples computers to get information illegally or do damage is
    (a) Hacker   (b) Analyst
    (c) Instant messenger (d) Programmer
    (e) Spammer

181. To access properties of an object, the mouse technique to use is _____
    (a) dragging   (b) dropping
    (c) right-clicking   (d) shift-clicking
    (e) None of these

182. Computers used the _____ number systems to store data and perform calculations
    (a) binary   (b) octal
    (c) decimal   (d) hexadecimal
    (e) None of these

183. The default view in Excel is _____ View.
    (a) Work   (b) Auto
    (c) Normal   (d) Roman
    (e) None of these

184. In word you can force a page break _____
    (a) by positioning your cursor at the appropriate place and pressing the F1 key
    (b) By positioning your cursor at the appropriate place and pressing Ctrl + Enter
    (c) By using the Insert/section break
    (d) By changing the font size of your documents
    (e) None of these

185. Specialized programs that assist users in locating information on the Web are called
    (a) Information engines (b) locator engines
    (c) web browsers   (d) resource locators
    (e) search engines

186. Compiling creates a(n)
    (a) error-free program (b) program specification
    (c) subroutine   (d) algorithm
    (e) executable program

187. Wha is the name given to those applications that combine text, sound, graphics, motion video, and/or animation?
    (a) motionware   (b) anigraphics
    (c) videoscapes   (d) multimedia
    (e) maxomedia

188. How are the World Wide Web (WWW) and the internet different?
    (a) They aren't different; they are two different names for the same thing.
    (b) The internet is text only, the WWW incorporates multimedia.
    (c) The internet is primarilyused by businesses; the WWW can be used by home users.
    (d) The WWW is faster than the more archaic internet.
    (e) None of these

189. Which ports connects special types of music instruments to sound cards?
    (a) BUS   (b) CPU
    (c) USB   (d) MIDI
    (e) MINI

190. The long term objective of marketing is-
    (a) Customer satisfaction
    (b) Profit maximization
    (c) Cost cutting
    (d) Profit maximization with customer satisfaction
    (e) None of these

191. Zero-based budgeting (ZBB) means-
    (a) A tool of marketing cost
    (b) a tool for financial analysis
    (c) each year, budgeting starts from a scratch.
    (d) a certain percentage of sales
    (e) Both 1 & 2.

192. A marketing technique where marketer plays a specific role in a particular segment is called -
    (a) Mass Marketing
    (b) Niche marketing
    (c) Strategic Marketing
    (d) Communication Marketing
    (e) None of these

193. In Marketing Mix 4 P's Imply -
    (a) Product, Price, Place, Promotion
    (b) Product, Price, Policy, Place
    (c) Place, People, Product, Promotion
    (d) All of the above
    (e) None of these

194. Good marketing strategy envisages good and proper ____.
    (a) Product distribution (b) Networking of branches
    (c) High Pricing   (d) Placement of counter staff
    (e) Relationship management

195. Marketing in banks has been necessitated due to
    (a) globalisation
    (b) excess staff
    (c) nationalisation of bank
    (d) complacency among the staff
    (e) poor customer service

196. Innovation in marketing is same as-
    (a) Abbreviation
    (b) Communication
    (c) Creativity
    (d) Aspiration
    (e) Research work

197. Effective Selling Skills depends on-
    (a) Number of languages known to the DSA
    (b) Data on marketing staff
    (c) Information regarding IT market
    (d) Knowledge of related market
    (e) Ability to talk fast

198. The first CNG train is launched on -
    (a) Delhi-Agra Section
    (b) Rohtak-Chandigarh Section
    (c) Delhi-Chandigarh Section
    (d) Rewari-Rohtak Section
    (e) None of these

199. Name the Malaysian woman who has become the world's oldest women(and also the oldest living person, presently).
    (a) Nurul Yeoh   (b) Yati Musdi
    (c) Michele Chia   (d) Celine Choo
    (e) None of these

200. Which among the following is the theme of the World Health Day-2015 ?
    (a) Food Safety   (b) Aging and Health
    (c) Water Safety   (d) Small Bite Bit Thread
    (e) None of these

HINTS & SOLUTIONS

(1-3) :

Colours of the sky = ki la fa so   ...(i)

rainbow colours = ro ki   ...(ii)

[from (i) and (ii)]

∴ Colours = ki.....

sky high rocket = la pe jo   ...(iii)

from (i) and (iii), sky = la

the rocket world = pe so ne

from (i) and (iv), the = so   ...(iv)

and from (iii) and (iv), rocket = pe

1.   **(e)**   colours sky high = ki la jo

2.   **(c)**   'the' represents only 'so'.

3.   **(e)**   'pe' represents 'rocket'.

(4-8) :

4.   **(a)**   **Statements** $W \geq D < M < P < A = F$

      Conclusions

      I. $F > D \rightarrow$ It follows.

      II. $P < W \rightarrow$ It does not follows.

      So, only conclusion I follows.

5.   **(d)**   **Statements** $H \geq M > F < A = B > S$

      Conclusions

      I. $H > B \rightarrow$ It does not follow.

      II. $F < S \rightarrow$ It does not follow.

      Neither Conclusion I nor II follows.

6.   **(b)**   **Statements** $B > T > Q > R = F$

      Conclusions

      I. $Q \geq F \Rightarrow$ It does not follow because $Q > F$ only.

      II. $T > F \Rightarrow$ It follows.

      Only Conclusion II follows.

7.   **(b)**   **Statements** $S = R \geq Q, P < Q$

      ∴ $S = R \geq Q > P$

      Conclusions

      I. $S \geq P \Rightarrow$ It does not follow because $S \geq Q$ and $Q > P$.

      II. $R > P \Rightarrow$ It follows.

      Only conclusion II follows.

8.   **(b)**   **Statements** $S \geq M < Y = Z > F > T$

      Conclusions

      I. $S > F \Rightarrow$ It does not follow.

      II. $Y > T \Rightarrow$ It follows.

      Only conclusion II follows.

(9-13) : Eight persons sitting arrangements areas as follows.
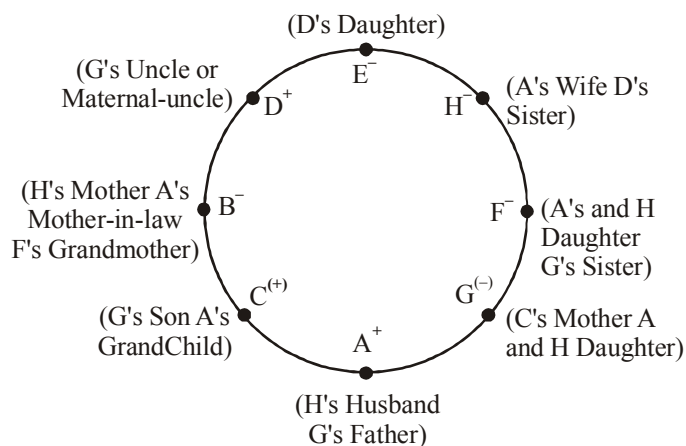
9.   **(d)**   A's mother-in-law is B and A is second to the right of B.

10.   **(a)**   A's grandchild is C and A is immediate right of C.

11.   **(c)**   Except C all others are women.

12.   **(e)**   B is the mother of H which is true with respect to the given sitting arrangement.

13.   **(a)**   F's grandmother sits to the immediate left of C.

(14-15) :

According to given information.
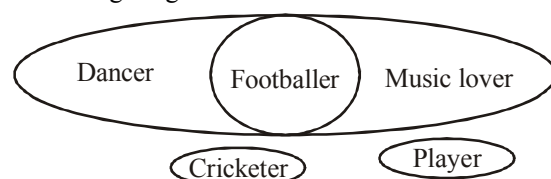
14.   **(b)**   Possibility case
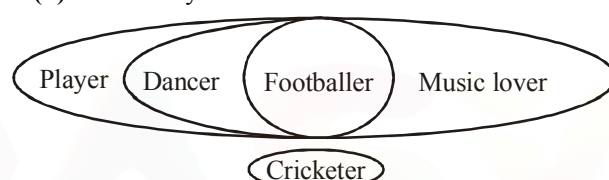
Hence, all of the conclusion follows.

15.   **(a)**   Possibility case
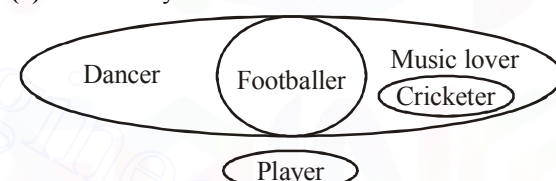
Hence, only Conclusion I follows.

(16-18) :

According to given information,
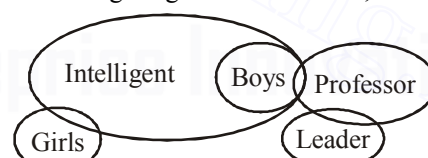
16.   **(c)**   Hence, Conclusions I and II follow.

17.   **(c)**   Possibility case

II

III
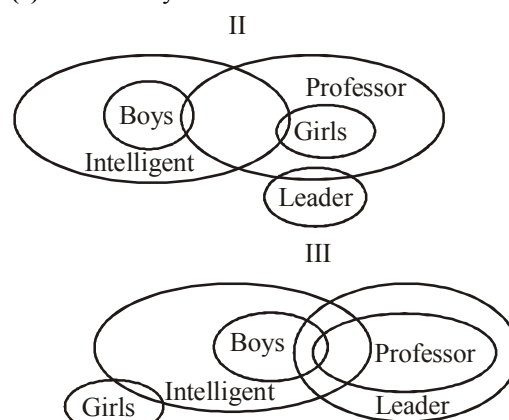
Hence, Conclusions II and III follow.

18. (c) Hence, only Conclusions III follows.

(19-23) : After careful analysis of the given input and various steps of rearrangement it is evident that in each step one word and one number are rearranged.

The word are rearranged from left in alphabetical order and the numbers are rearranged from the right in descending order but in the final step the word get rearranged in alphabetical order in reserves manner and number appear in descending order.

Input: 31 rise gem 15 92 47 aim big 25 does 56 not 85 63 with moon

Step I	:	aim 31 rise gem 15 47 big 25 does 56 not 85 63 with moon 92
Step II	:	big aim 31 rise gem 15 47 25 does 56 not 63 with moon 92 85
Step III	:	does big aim 31 rise gem 15 47 25 56 not with moon 92 85 63
Step IV	:	gem does big aim 31 rise 15 47 25 not with moon 92 85 63 56
Step V	:	moon gem does big aim 31 rise 15 25 not with 92 85 63 56 47
Step VI	:	not moon gem does big aim rise 15 25 with 92 85 63 56 47 31
Step VII	:	rise not moon gem does big aim 15 with 92 85 63 56 47 31 25
Step VIII	:	with rise not moon gem does big aim 92 85 63 56 47 31 25 15

19. (a)
20. (d)
21. (b)
22. (c)
23. (c)
24. (b) I. $\underset{(+)}{P} \leftrightarrow \underset{\downarrow}{N} \underset{(-)}{\rightleftharpoons} K^{+}$
$\underset{J}{\uparrow}$

Using I only, we cannot determine if J is the nephew or niece of K.

II. $\underset{(+)}{P} \leftrightarrow \underset{\downarrow}{N} \underset{(-)}{\rightleftharpoons} K^{+}$
$\underset{\underset{(+)}{J}}{}$

J is the nephew of K.

25. (a) I. Using I only, we can determine that G stays on 4th floor.

26. (e)
I. Raju can take 4 to 8 days to complete the work.
II. Raju can take 8 to 10 days to complete the work. Using both the statements together we can determine that Raju took 8 days to complete the work.

27. (c)
28. (d) Even by using both the statements together we cannot determine whether B has highest number of student or D.

29. (d) Which additional piece of information would strengthen the argument? The information that strengthens this argument will be about the subjects of the argument, not about tangential issues. In this case, the argument is about early hominids' use of fire. Any physical evidence, that links the early hominids to the charred bone fragments strengthens the argument. If these bone fragments were found in conjunction with some other evidence of the presence of early hominids, then the evidence from the Swartkans location could be used to support the claim that early hominids used fire.

Hence, statement (4) properly indentifies evidence that links early hominids to these bone fragments and so strengthens the argument.

30. (b) People having a comfortable lifestyle are found to be happier than leading strenuous lifestyle by their height on most contradicts the findings.

31. (c) Clearly, option (c) weaken the findings because suffering from malaria respond well to the traditional malaria drugs, while in statement not seems so.

32. (a) The cost of transportation from state A to state C is more than 30% of the production cost can be directly drawn from the statement.

33. (c) After a cautioned gap of one month people have started visiting crowded places most substantiates the facts.

34. (c) The air traffic controllers of the city should be sent to refresher courses so that they can improve them self in handling such situation is the most suitable course of action.

(35 - 40) :
We can conclude the following result:

Flat No.	Agewise decreasing	Qualification	Name
(3)	Chess player	Power Engineer	Amit
(3)	Cricket (Regional)	Mech. Engineer	Manu
(2)	Football	Design Engineer	Rohit
(5)	Tennis	Quality Inspector	Tarun
(4)	Cricket (National)	Mech. Engineer	Ambrish

35. (a)
36. (d)
37. (c)
38. (d)
39. (c)
40. (a)

(41-45) :
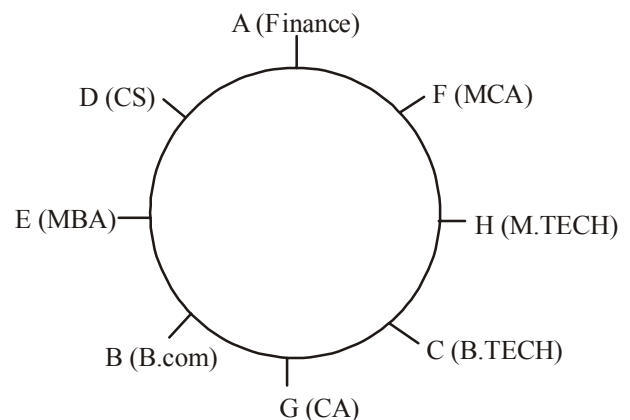
41. (c) 42. (a) 43. (a) 44. (a) 45. (b)
46. (e) 47. (e)
48. (e) T is grandfather.
49. (b) S is great grandmother of N.
50. (d) The statement mentions that the commercial banks violate a directive issued by the RBI. The remedy is only to make the banks implement the Act. So, none of the courses follows.
51. (e) Number of women liking
CSK = 44% of 45525 = 20031
DD = 33% of 36800 = 12144
DC = 30% 0f 56340 = 16902
MI = 28% of 62350 = 17458
RR = 44% of 48300 = 21252
RCB = 35% of 35580 = 12453
KXI = 36% of 56250 = 20250
KKR = 54% of 64000 = 34560
Total = 155050

$\therefore$ Required average $= \dfrac{155050}{8} = 19381.25 \simeq 19381$

52. (e) Required percentage

$= \dfrac{\text{Number of women liking RR}}{\text{Number of women liking all teams}} \times 100$

$= 21252/155050 \times 100 = 13.7\%$

53. (b) Required number = 45525×36/100 = 16389
54. (c) Required ratio = (36800 × 39) : (48300 × 21) = 208 : 147
55. (c) Number of men liking DC = 45% 56340 = 25353
Number of men liking RCB = 15% of 355080 = 5337

$\therefore$ Required percentage $= \dfrac{25353}{5337} \times 100 = 475.04\%$

(56-60) :
Stock at the beginning of
June = 75 units
July = 75 − (350 − 300) = 75 − 50 = 25 units
August = 25 − (275 − 250) = 25 − 25 = 0 unit
September = 200 − 175 = 25 units
October = 25 − (325 − 300) = 50 units
November = 25 + (325 − 300) = 50 units
From the above calculation, we get the following table

Months	Quantity Produced	Quantity sold	Stock of the beginning
June	300	350	75
July	250	275	25
August	200	175	0
September	200	200	25
October	325	300	25

56. (c) From the above table, it is clear that in the beginning of August, the company had the least stock.
57. (c) The stock at the beginning of September was 25 units.
58. (e) Required minimum stock should be 75 units. If we had the stock at the beginnings less than 75 units, the company would not have been able to supply in August.
59. (a)
60. (b) The stock at the beginnings of July was 25 units.
61. (a) Percentage of money spent on tennis

$= \left(\dfrac{45}{360} \times 100\right)\% = 12\dfrac{1}{2}\%$

62. (d) Degree value of expenditure on hockey = 63°
Degree value of expenditure on golf = 36°

$\therefore$ Required percentage $= \dfrac{63 - 36}{36} \times 100 = 75\%$

63. (a) Amount spent on basketball exceeds that on tennis by

$= ₹\left(\dfrac{(50 - 45)}{360} \times 18000000\right) = ₹250000$

64. (c) Degree value of the expenditure
on football = 54°
on cricket = 81°

$\therefore$ Required percentage $= \dfrac{81 - 54}{81} \times 100$

$= \dfrac{27}{18} \times 100 = 31\dfrac{1}{3}\%$

65. (b) Degree value of expenditure on cricket and hockey = (81 + 63)° = 144°

$\therefore$ Required amount spent on them $= ₹\dfrac{144}{360} \times 2\,\text{crore}$

$= 0.8\ \text{crore} = ₹8000000$

66. (b) Suppose x units are produced each year.
So, in the year 2006,
Total revenue = 1200
$\Rightarrow$ 12 × x = 1200
$\Rightarrow$ x = 100
Prifit = 300
$\therefore$ Cost price = 1200 − 300 = 900

$\therefore$ Cost per unit $= \dfrac{900}{100} = 9$

In the year 2005,
Total revenue = 1400
$\Rightarrow$ 14 × x = 1400
     x = 100
Profit = 100
$\therefore$ Cost price = 1400 − 100 = 1300

$\therefore$ Cost per unit $= \dfrac{1300}{100} = 13$

In the year 2009,
Total revenue = 400
$\Rightarrow$ 8 × x = 400
$\Rightarrow$ x = 50
Profit = 150
$\therefore$ Cost price = 400 − 150 = 250

$\therefore$ Cost per unit $= \dfrac{250}{50} = 5$

In the year 2011,
Total revenue = 700
$\Rightarrow$ 14 × x = 700
$\Rightarrow$ x = 50
Profit = 200
$\therefore$ Cost price = 700 − 200 = 500

$\therefore$ Cost per unit = $\dfrac{500}{50} = 10$

Thus, per unit cost is highest in the year 2005.

67. (b)

Years	Unit price	Revenue	Total units $= \dfrac{\text{Revenue}}{\text{Unit price}}$
2000	10	700	70
2001	14	1400	100
2002	12	1200	100
2003	12	900	75
2004	11	1100	100
2005	8	400	50
2006	10	200	20
2007	14	700	50
2008	10	600	60
2009	10	800	80
2010	15	900	60
			Total = 765

$\therefore$ Average units = $\dfrac{765}{11} \simeq 70$ units

68. (c) Checking option (a),

Volatility per unit = $\dfrac{15-8}{\frac{126}{11}} = \dfrac{77}{126} = 0.611$

Checking of option (b),
Total cost = Revenue − Profit
= (700 + 1400 + 1200 + 900 + 1100 + 400 + 200 + 700 + 600 + 800 + 900) − (0 + 100 + 300 + 150 + 0 + 150 + 100 + 200 + 0 + 400 + 300)
= 8900 − 1700 = 7200

Average cost per unit = $\dfrac{7200}{11}$

Volatility cost per unit = $\dfrac{(1400-100)-(200-100)}{7200}$

$= \dfrac{1300-100}{7200} \times 11 = 1.833$

Checking option (c),

Average profit = $\dfrac{1700}{11}$

$\therefore$ Profit volatility = $\dfrac{400-0}{\frac{1700}{11}} = \dfrac{44}{17} = 2.588$

Checking option (d),

Average revenue = $\dfrac{8600}{11}$

$\therefore$ Revenue volatility = $\dfrac{1400-200}{\frac{8600}{11}}$

$= \dfrac{132}{86} = 1.535$

$\therefore$ Total profit has highest volatility.

69.

Year	New revenue	Total cost = Old revenue − Profit
2004	80% of 700 − 560	700
2005	80% of 1400 = 1120	1300
2006	80% of 1200 = 960	900
2007	80% of 900 = 720	750
2008	80% of 1100 = 880	1100
2009	400	120% of 250 = 300
2010	200	120% of 100 = 120
2011	700	120% of 500 = 600
2012	600	120% of 600 = 720
2013	800	120% of 400 = 480
2014	900	120% of 600 = 720

In a year when total cost is more than new revenue then in that year there is loss.
These years are 2004, 2005, 2006, 2007 and 2008
So, there are total 5 yr.

70. (b) Total decrease in revenues
= 20% of (700 + 400 + 1200 + 900 + 1100) = 1060
Total increase in cost
= 20% of (250 + 100 + 500 + 600 + 400 + 600) = 490
Decrease in cumulative profit
= Total decrease in revenues + Total increase in cost
= 1060 + 490 = ₹1550

71. (b) Total number of foreign tourists who visited Wagha Border on all the days together
= 130 + 190 + 120 + 200 + 220 = 860

Therefore, required average = $\dfrac{860}{5} = 172$

72. (e) Total number of tourists whos visited all the three places on Tuesday = 70 + 190 + 270 = 530
Total number of foreign tourists who visited Wagha Border on Monday and Wednesday together
= 130 + 120 = 250

$\therefore$ Required percentage = $\dfrac{530}{250} \times 100\% = 212\%$

73. (c) Total number of tourists who visited all the three places on Monday = 90 + 130 + 200 = 420
on Tuesday = 70 + 190 + 270 = 530
on Wednesday = 120 + 150 + 180 = 450
on Thursday = 200 + 230 + 260 = 690
on Friday = 140 + 190 + 220 = 550
Thus, the number of tourists was second lowest on Wednesday.

74. (d) Number of tourists who visited Taj Mahal on Thursday = 260
Number of thourists who visited Golden Temple on Friday = 140
Therefore, required ratio = 260 : 140 = 13 : 7

75. (a) Difference between the number of foreign tourists who visited Taj Mahal and Golden Temple
on Monday = 200 − 90 = 110
on Tuesday = 270 − 70 = 200
on Wednesday = 180 − 150 = 30
on Thursday = 260 − 230 = 30
on Friday = 190 − 140 = 50
Thus, the difference is second highest on Monday.

(76-80) :

Number of students in the college = 7200

Number of boys = $\dfrac{7}{12} \times 7200 = 4200$

Number of girls = $\dfrac{5}{12} \times 7200 = 3000$

Number of student in B. Tech. (nano technology) = 22% of 7200 = 1584

Number of girls in B. Tech. (computer science) = 16% of 3000 = 480

Number of boys in B.Tech. (mechanical) = 18% of 4200 = 756

Number of girls in B.Tech. (civil) = 30% of 480 = 144

Number of boys in B.Tech. (electronics) = 15% of 4200 = 630

Number of boys in B.Tech. (computer science) = 50% of 480 = 240

Number of girls in B.Tech. (aerospace) = 15% of 3000 = 4500

Number of boys in B.Tech. (civil) $= \dfrac{3}{1} \times 144 = 432$

Number of students in B.Tech (electronics) = 24% of 7200 = 1728

∴ Number of girls in B.Tech. (electronics) = 1728 – 630 =1098

Number of boys in B.Tech. (aerospace) $= \dfrac{12}{5} \times 450 = 1080$

Number of boys in B.Tech. (nano technology) = Remaining Number of boys = 4200–(756+630+240+432+1080) = 4200–3138=1062

∴ Number of girls in B.Tech. (nano technology) =1584 – 1062 = 522

Number of girls in B.Tech. (mechanical) = Remaining Number of girls = 3000 – (480 + 144 + 450 + 1098 + 522) = 3000 – 2694 = 306

Tabular form of above information is shown below.

Subjects	Number of boys	Number of girls
B.Tech. (computer science)	240	480
B.Tech. (mechanical)	756	306
B.Tech. (civil)	432	144
B.Tech. (electronics)	630	1098
B.Tech. (aerospace)	1080	450
B.Tech. (nano technology)	1062	522
Total	4200	3000

76. **(a)** From the table, it is clear that total number of students enrolled in B.Tech. (meachanical)

77. **(c)** Number of girls enrolled in B.Tech. (electronics) = 1098

∴ Required percentage $= \dfrac{1098}{7200} \times 100\%$

$= 15.25\% \simeq 15\%$

78. **(e)** Number of girls enrolled in B.Tech. (nano technology) = 522

79. **(d)** Number of boys enrolled in B.Tech. (aerospace) = 1080

Number of girls enrolled in B.Tech. (computer science) = 480

∴ Required percentage $= \dfrac{1080}{480} \times 100\% = 225\%$

80. **(b)** Total number of boys enrolled in B.Tech. (civil) = 432

81. **(a)** $7x + 6y + 4z = 122$ ... (i)
$4x + 5y + 3z = 88$ ... (ii)
$9x + 2y + z = 78$ ... (iii)

By equation (iii) × 3 – equation (ii),

$$\begin{array}{r} 27x+6y+3z = 234 \\ 4x+5y+3z = \;\;88 \\ \hline - \quad - \quad - \quad - \\ \hline 23x + y = 146 \end{array} \quad ...(iv)$$

By equation (iii) × 4 – equation (i),

$$\begin{array}{r} 36x+8y+4z = 312 \\ 7x+6y+4z = 122 \\ \hline - \quad - \quad - \quad - \\ \hline 29x+2y = 190 \end{array} \quad ...(v)$$

By equation (iv) × 2 – equation (v),

$$\begin{array}{r} 46x+2y = 292 \\ 29x+2y = 190 \\ \hline - \quad - \quad - \\ \hline 17x = 102 \end{array} \quad ...(iv)$$

⇒ $x = 6$

From equation (iv),
$23 \times 3 + y = 146$

⇒ $y = 146 - 138 = 8$

From equation (iii),
$9 \times 6 + 2 \times 8 + z = 78$

⇒ $54 + 16 - z = 78$

⇒ $z = 78 - 70 = 8$

Clearly, $x < y = z$

82. **(c)**

By equation (II) × 2 – equation (I)

Number	Floor	Person
6	Fifth Floor	P
5	Fourth Floor	T
4	Third Floor	V
3	Second Floor	S
2	First Floor	R
1	Ground Floor	Q

From equation (I),
$7 \times 8 + 6y = 110$

⇒ $6y = 110 - 56 = 54$

⇒ $y = 9$

From equation (iii),

$8 + z = 15 \Rightarrow z = 7$

Clearly, $x < y > z$

83. **(b)** I. $x = \sqrt{(36)\frac{1}{2} \times (1296)\frac{1}{4}} = \sqrt{6 \times 6} = \pm 6$

By equation II $\times 3$ – equation I

$$\begin{array}{r} 6y + 9z = 99 \\ 6y + 5z = 71 \\ \underline{- \quad - \quad -} \\ 4z \quad = 28 \end{array} \Rightarrow z = 9$$

From equation II,

$2y + 3 \times 7 = 33$

$\Rightarrow 2y = 33 - 21 = 12$

$\Rightarrow y = 6$

$x \le y < z$

84. **(d)** By equation 1 $\times 5$ – II $\times 8$

$$\begin{array}{r} 40x + 35y = 675 \\ 40x + 48y = 792 \\ \underline{- \quad - \quad -} \\ -13y = -117 \end{array}$$

$\Rightarrow y = 9$

From equation I,

$8x + 7 \times 9 = 135$

$\Rightarrow 8x = 135 - 63 = 72$

$\Rightarrow x = 9$

From equation III,

$9 \times 9 + 8z = 121$

$\Rightarrow 8z = 121 - 81 = 40$

$\Rightarrow z = 5$

Clearly, $x = y > z$

85. **(e)** I. $(x + y)^3 = 1331$

$\Rightarrow x + y = 11$

$\Rightarrow y = 11 - x$

From equation III,

$x(11 - x) = 28$

$\Rightarrow 11x - x^2 = 28$

$\Rightarrow x^2 - 11x + 28 = 0$

$\Rightarrow x^2 - 7x - 4x + 28 = 0$

$\Rightarrow x(x - 7) - 4(x - 7) = 0$

$\Rightarrow (x - 7)(x - 4) = 0$

$\Rightarrow x = 7, 4$

From equation I

$y = 4, 7$

From equation II

$7 - 4 + z = 0 \Rightarrow z = -3$

$4 - 7 + z = 0 \Rightarrow z = 3$

86. **(d)** Let S_1 and S_2 be the speed of train A and B respectively

Time taken by both the trains in crossing each other.

$\dfrac{450}{S_1 + S_2} = 12$, $S_1 + S_2 = 37.5$

S_1 and S_2 can have so many values. Both statement I and II are not sufficient to find speed of train B.

87. **(d)** Area of rectangle = Area of triangle.

From the information given in both the statements, we can find area of triangle or area of rectangle. For finding length, breadth is required, which is not known.

88. **(c)** From the statement I.

$r = \dfrac{100 \times 100}{1000} = 10\%$

Thus we have,

$P = ₹ 1000$, $r = 10\%$, $t = 3$ years

Hence, C.I. can be determined

From the statement II.

S.I. $= \dfrac{1000 \times r \times 2}{1000} = 20r$

C.I.$= 1000\left[\left(1 + \dfrac{r}{100}\right)^2 - 1\right]$

$\therefore$ C.I. – S.I.

$= 1000\left[\dfrac{200r + r^2}{10000}\right] - 20r$

$\Rightarrow 2000r + r^2 - 200r = 100$

$\Rightarrow r = 10$

Hence, C.I. can be determined

89. **(e)** Let the unit's digit be x and ten's digit be y and $x < y$.

$\therefore$ Number $= 10y + x$

From statement I,

$y - x = 5$ ... (i)

From statement II,

$y + x = 7$ ... (ii)

From (i) and (ii), x, y can be calculated and two digit number can be found.

90. **(d)** Let the distance between A and B be z km.

Again, let speed of boat in still water be x kmph and that of stream be y kmph.

$\therefore$ Rate downstream $= (x + y)$ kmph

Rate upstream $= (x - y)$ kmph

From statement I,

$\dfrac{z}{x + y} = 2$ ... (i)

From statement II,

$$\frac{z}{x-y} = 4 \qquad \text{... (ii)}$$

we have two equations and three variables, therefore both equations are not sufficient.

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

$13 \times 1 + 1 = 14$

$14 \times 2 + 2 = 30$

$30 \times 3 + 3 = 93$

$93 \times 4 + 4 = 376$

$376 \times 5 + 5 = 1885$

$\therefore ? = 1885 \times 6 + 6 = \boxed{11316}$

Hence, number 11316 will replace the question mark.

92. (b) 4   6   9   13.5   20.25   30.375 $\boxed{45.5625}$

$\times 1.5$ $\times 1.5$ $\times 1.5$ $\times 1.5$ $\times 1.5$ $\times 1.5$

93. (d) 400   240   144   86.4   51.84   31.104 $\boxed{18.6624}$

$\times 0.6$ $\times 0.6$ $\times 0.6$ $\times 0.6$ $\times 0.6$ $\times 0.6$

94. (a) 9   4.5   4.5   6.75   13.5   33.75 $\boxed{101.25}$

$\times 0.5$ $\times 1$ $\times 1.5$ $\times 2$ $\times 2.5$ $\times 3$

In each term in the series added by 1, 2, 3, ... and then multiplied by 23

95. (e) $705 + 1 \times 23 = 728$

$728 + 2 \times 23 = 774$

$774 + 3 \times 23 = 843$

$843 + 4 \times 23 = 935$

$935 + 5 \times 23 = 1050$

$\therefore ? = 1050 + 6 \times 23$

$= 1050 + 138 = 1188$

96. (a) Red light flashes 3 times / min. i.e after every 20 seconds.

Green light flashes 5 times in 2 min. i.e. after every 24 seconds.

So, they flash together after every 2 minutes

= 120 seconds

(L.C.M. of 20 & 24 = 120)

Hence, in 1 hour they flash together 60/2 = 30 times

97. (e) Minimum number of bags we have to allocate them in such a way that we get all the numbers

i.e., $1 + 2 + 4 + 8 + 16 + 32 + 64 + 128$

Hence, minimum no. of bags required is 8; having number of coins $2^0, 2^1, 2^2, ..., 2^7$

98. (a) Price change of each commodity is as follows :

$$\text{Arhar} = \frac{2150 - 1700}{1700} = 26.5\%$$

$$\text{Pepper} = \frac{19250 - 18500}{18500} = 4\%$$

$$\text{Sugar} = \frac{1435 - 1440}{1440} = -0.3\%$$

$$\text{Gold} = \frac{3840 - 4240}{4240} = 9.43\%$$

99. (c) Price Volatility is defined in the question PV

$$= \frac{\text{H.P.} - \text{L.P.}}{\text{A.P.}}$$

	H.P.	L.P.	A.P.	PV
Arhar	2300	1500	1912.50	0.42
Pepper	19500	17400	18622.50	0.112
Sugar	1500	1410	1446.25	0.06
Gold	4300	3800	4045	0.124

So the lowest price volatility is for sugar.

100. (d) Price change which we have calculated previously is nothing but profit percent or loss percent depending upon the sign. In the first two we have profit percentage which is $26.5 + 4\% = 29.5\%$ and the loss percentage is

$0.3 + 9.4 = 9.7\%$ then net profit % comes out to be 20.8% and then the average of which gives i.e.

$$\frac{20.8}{4} = 5.2\%$$ so the closest answer is (d).

101. (b) Delete 'to'. It is superfluous.

102. (a) Replace 'Yesterday in the night' by last night.

103. (c) Replace 'will approach' with 'will be approaching'.

104. (a) Use of whole is superfluous.

105. (c) Use of that is superfluous.

106. (c)	107. (a)	108. (b)	109. (e)	110. (b)
111. (d)	112. (b)	113. (c)	114. (d)	115. (e)
116. (c)	117. (b)	118. (b)	119. (a)	120. (d)
121. (a)	122. (c)	123. (d)	124. (c)	125. (d)
126. (d)	127. (d)	128. (a)	129. (c)	130. (a)
131. (c)	132. (d)	133. (b)	134. (c)	135. (c)
136. (d)	137. (b)	138. (d)	139. (d)	140. (b)
141. (c)	142. (a)	143. (d)	144. (c)	145. (a)
146. (b)	147. (d)	148. (d)	149. (c)	150. (c)
151. (b)	152. (c)	153. (d)	154. (e)	155. (d)
156. (a)	157. (c)	158. (a)	159. (d)	160. (a)
161. (a)	162. (b)	163. (c)	164. (d)	165. (b)
166. (a)	167. (d)	168. (a)	169. (d)	170. (b)
171. (c)	172. (d)	173. (a)	174. (d)	175. (a)
176. (a)	177. (b)	178. (d)	179. (b)	180. (a)
181. (c)	182. (a)	183. (c)	184. (b)	185. (e)
186. (e)	187. (d)	188. (b)	189. (d)	190. (d)
191. (c)	192. (b)	193. (a)	194. (e)	195. (a)
196. (c)	197. (d)	198. (d)	199. (b)	200. (a)

IBPS SPECIALIST (I.T.) OFFICER EXAM
Held on 15 Feb, 2016

Reasoning Ability

DIRECTIONS (Qs. 1-5) : *Study the given information carefully and answer the given questions.*

L, M, N, O, P, Q, R and S are sitting around a circular table at equal distances between each other, but not necessarily in the same order. Some of the people are facing the centre while some face outside (i.e. in a direction opposite to the centre) .

O sits third to the right of L. Both Q and L face the same direction. Only three people sit between P and M. P is neither an immediate neighbour of L nor O. M faces outside. R sits to the immediate left of M. Q sits to the immediate right of N. Neither L nor Q is an immediate neighbour of N. Both the immediate neighbours of M face the opposite directions. S sits second to the right of R. Both R and Q face the same direction as S. P face a direction opposite to that of N.

1. How many people in the given arrangement face the centre?
   - (a) One
   - (b) Four
   - (c) Five
   - (c) Three
   - (e) Two

2. What is N's position with respect to P?
   - (a) Immediate left
   - (b) Third to the right
   - (c) Fourth to the right
   - (d) Second to the left
   - (e) Immediate right

3. Four of the following five are alike in a certain way based on the given seating arrangement and so form a group. Which is the one that does not belong to that group?
   - (a) L
   - (b) S
   - (c) N
   - (d) Q
   - (e) R

4. Which of the following is true regarding Q as per the given arrangement?
   - (a) Only three people sit between Q and R.
   - (b) Q sits second to right of O.
   - (c) Q faces outside.
   - (d) None of the given statements is true.
   - (e) Q sits second to the left of P.

5. Who amongst the following sits exactly between M and the one who sits second to the left of P?
   - (a) L
   - (b) N
   - (c) R
   - (d) Q
   - (e) O

DIRECTIONS (Qs. 6-10): *Read the following information to answer the given questions.*

P, Q, R, S, T, U, V and W are seated in a straight line but not necessarily in the same order. Some of them are facing South while some are facing North. T faces South. Only three people sit to the left of T. Only two people sit between T and Q. U sits third to the right of W. W is neither an immediate neighbour of T nor Q. W does not sit at any of the extreme ends of the line. Both the immediate neighbours of S face North. S is not an immediate neighbour of W. Only one person sit between S and P. P faces same direction as W. Immediate neighbours of Q face opposite directions (i.e. if one neighbour faces North then the other South and *vice-versa.*) Persons sitting at extreme ends face opposite directions. R faces a direction opposite to S.

6. How many persons are seated between T and P?
   - (a) Four
   - (b) More than four
   - (c) One
   - (d) Three
   - (e) Two

7. Which of the following pairs represents persons seated at the two extreme ends of the line?
   - (a) R, T
   - (b) P, V
   - (c) P, U
   - (d) Q, R
   - (e) R, S

8. Which of the following is true about V with respect to the given arrangement?
   - (a) Only two people sit between V and Q.
   - (b) Only one person sits to the right of V.
   - (c) None of the given options is true.
   - (d) U is one of the immediate neighbours of V.
   - (e) R sits second to the right of V.

9. Who amongst the following sits to immediate left of R?
   - (a) T
   - (b) P
   - (c) W
   - (d) Q
   - (e) S

10. Four of the following five are alike in a certain way based on the given arrangement and so form a group. Which is the one that does not belong to that group?
    - (a) R
    - (b) U
    - (c) P
    - (d) W
    - (e) None of these

DIRECTIONS (Qs. 11-15) : *Study the following information to answer the given questions.*

Eight people A, B, C, D, E, F, G and H live on separate floor of an 8-Floor building but not necessarily in the same order. Ground floor is numbered 1, first floor is numbered 2 and so on until the topmost floor is numbered eight.

Only two people live below the floor on which G lives. Only one person lives between G and A. H lives on an odd numbered floor but not on floor number 7.

Only two people live between H and B. B does not live on the topmost floor.

A does not live on the lowermost floor.

C lives immediately below D. Neither C nor E lives on floor number 6.

11. How many people live between the floors on which A and D live?
    (a) Three   (b) More than three
    (c) None   (d) Two
    (e) One

12. Who lives on the floor immediately below G?
    (a) F   (b) E
    (c) D   (d) B
    (e) C

13. On which of the following floor numbers does D live?
    (a) 4   (b) 1
    (c) 8   (d) 5
    (e) 7

14. 'Which of the following is true 'with respect to F as per the given arrangement?
    (a) Only three people live between F and B.
    (b) Only three people live above F.
    (c) F lives on the floor number 6.
    (d) None of the given options is true.
    (e) F lives immediately above D.

15. Who among the following lives on floor number 5?
    (a) D   (b) C
    (c) E   (d) B
    (e) A

DIRECTIONS (Qs. 16-20) : *Study the following information and answer the questions.*

Seven friends namely, M, N, O, P, Q, R and S attend different language classes namely, French, English, Spanish, Sanskrit, Chinese, German and Japanese, not necessarily in the same order, from Monday to Sunday (of the same week).

M attends a class on Friday. Only two people attend classes between M and the one who is learning Sanskrit. R attends a class immediately before P. Neither R nor P is learning Sanskrit. Only one person attends a class between R and the one who is learning Spanish. The one who is learning Spanish deos not have a class on Monday. N attends a class immediately before the one who is learning French. M is not learning French. Only one person has a class between R and Q. O is learning German. Only two people have classes between O and the one who is learning Chinese. Q is not learning Japanese.

16. Which of the following represent those who have language classes immediately before and immediately after N?
    (a) P, M   (b) Q, M
    (c) Q, R
    (d) Other than those given as options
    (e) R, P

17. Which of the following language is Q learning?
    (a) Other than those given as options
    (b) Chinese
    (c) English
    (d) Spanish
    (e) Sanskrit

18. As per the given arrangement Q is related to Chinese and R is related to Japanese in a certain way. To which of the following is P related to in the same way?
    (a) Sanskrit
    (b) Other than those given as options
    (c) Spanish
    (d) English
    (e) French

19. Four of the following five form a group as per the given arrangement. Which of the following that does not belong to that group?
    (a) Q-Tuesday   (b) N-Thursday
    (c) S-Sunday   (d) M-Saturday
    (e) P-Friday

20. On which of the following days does P have a class?
    (a) Monday   (b) Thursday
    (c) Wednesday   (d) Tuesday
    (e) Sunday

DIRECTIONS (Qs. 21-25): *In these 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 commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.*

Give answer
(a) Only conclusion I is true.
(b) Only conclusion II is true.
(c) Both conclusions are true.
(d) Neither conclusion I nor II is true.
(e) Either conclusion I or II is true.

21. **Statements**   All apartments are houses.
                          No apartment is a motel.
    Conclusions   I. Some houses being motels is a possibility.
                          II. No house is a motel.

22. **Statements**   All plants are trees.
                          Some trees are weeds.
                          All weeds are shrubs.
    Conclusions   I. No shrub is a plant.
                          II. All weeds being trees is a possibility.

23. **Statements**   Some drinks are juices.
                          All juices are beverages.
                          No beverage is a solid.
    Conclusions   I. No juice is a solid.
                          II. No drink is a solid.

24. **Statements**   Some drinks are juices.
                          All juices are beverages.
                          No beverage is a solid.
    Conclusions   I. Some drinks are beverages.
                          II. All drinks are beverages.

25. **Statements**   All plants are trees.
                          Some trees are weeds.
                          All weeds are shrubs.
    Conclusions   I. At least some trees are shrubs.
                          II. All plants being shrubs is a possibility.

DIRECTIONS (Qs. 26-30): *Study the given information carefully and answer the questions.*

When a word and number arrangement machine is given an input line of words and numbers, it arranges them following a particular rule. The following is an illustration of input and rearrangement. (All the numbers are two-digit numbers)

Input	46 span role 62 79 into main 13 39 deal
Step I	79 46 role 62 into main 1339 deal span
Step II	62 79 46 into main 1339 deal span role
Step III	46 62 79 into 13 39 deal span role main
Step IV	39 46 62 79 13 deal span role main into
Step V	13 39 46 62 79 span role main into deal
Step V	is the last step of the above arrangement as the intended arrangement is obtained.

As per the rules followed in the given steps, find the appropriate steps for the given input.

Input 11 east 54 vent kind 35 over 27 71 bowl

26. How many elements are there between '35' and 'kind' in the last step?
   (a) Two   (b) Four
   (c) One   (d) Three
   (e) None

27. What is the position of 'bowl' from the right of '71' in the second step?
   (a) Seventh   (b) Fifth
   (c) Sixth   (d) Second
   (e) Third

28. Which of the following represent the two consecutive elements to the immediate right of 'over' in the second last step?
   (a) bowl, vent   (b) 11, bowl
   (c) vent, kind   (d) 71,11
   (e) kind, east

29. Which is the third element to the left of the sixth element from the left element in the first step?
   (a) over   (b) 35
   (c) bowl   (d) east
   (e) 27

30. In step II, which element appears exactly between '27' and 'over'?
   (a) Only 11   (b) Only 71
   (c) Both kind and 71   (d) Only kind
   (e) Both bowl and vent

DIRECTIONS (Qs. 31-35): *In these questions, relationship between different elements is shown in the statements. The statements are followed by conclusions. Study the conclusions based on the given statements and select the appropriate answer.*

(a) Only conclusion I is true.
(b) Only conclusion II is true.
(c) Both conclusions are true.
(d) Neither conclusion I nor II is true.
(e) Either conclusion I or II is true.

31. **Statements** $N < A = T \geq Z; R \geq T; Z < S$
   Conclusions   I. $R > N$ II. $S > Z$

32. **Statements** $L \leq E = A > P; Y > E > R$
   Conclusions   I. $Y \geq L$ II. $A > R$

33. **Statements** $D < S \geq L > U; Q < S$
   Conclusions   I. $Q < D$ II. $U > Q$

34. **Statements** $L \leq E = A > P; Y \geq E > R$
   Conclusions   I. $P \geq R$ II. $A \leq Y$

35. **Statements** $N < A = T \geq Z; R \geq T; Z < S$
   Conclusions   I. $R = Z$ II. $Z < R$

DIRECTIONS (Qs. 36 & 37): *Read the given informations and answer the question.*

36. Company X- one of the largest automobile manufacturing companies of the country has started its own dedicated Colour Design Department which decides which colour will be given to which model of colour.
   Which of the following may not be a reason for starting this colour dedicated department by the said company?
   (a) Although people usually come with a clear idea about the basic features in a car within a stipulated budget, colour is the trial factor which influences their decision prior to purchase.
   (b) It has been recently suggested by experts that the depth and brightness of colour can be used to accelerate the shape and size of a car so that it appeals to prospective customers.
   (c) Two years ago a similar department was started by company R, one of the biggest competitors of company X.
   (d) As per market research done by the company many customers have chosen cars of competitor companies only because the colour of the cars of company X did not match their expectations.
   (e) As per recent research the colour of the car is an important aspect in the customer is likely to choose a car looking at its colour at first sight.

37. Some preschools in city Y hav recently discontinued the physical safety training for toddlers which was compulsorily provided to staff members for three months after joining.
   Which of the following may be a reason for the decision taken by some of the schools in city Y?
   (a) Even after employing trained staff members and providing further training to them, a few parents in city Y do not send their children to preschools as they are worried about the safety of their children.
   (b) A manual of safety is followed by all preschools of city Y.
   (c) Some teachers, who have been associated with these preschools for long, have suggested that the training which was provided to the institute was a little different as compared to the training provided.
   (d) All preschools in city Y have recently started employing only those people who have a certification in physical safety of toddlers and providing additional training simply leads to duplication of what they have already learnt.
   (e) There is no authority in city Y to regulate whether the staff members of schools are provided training.

38. The agriculture experts of country X experimented the usage of genetically-modified cotton plants to manufacture clothes. After the post-manufacture analysis, it was decided to discontinue the use of such modified plants and grow only the natural ones.

    Which of the following statements (if taken to be true) best supports the decision of the agricultural exports?

    (a) The trend of polyester clothes has dominated the markets of country X since the past two years but now the demand for cotton clothes has gone up again.

    (b) The weather conditions of country X is such that the residents of the country have to resort to only woollen clothes.

    (c) The high rate of pest attack in chemically grown plants as compared to the natural plants makes it unfeasible and uneconomic to grow.

    (d) Other few genetically grown plants have proved to be successful in country X.

    (e) Growing of genetically modified plants does not necessitate the use of humus-rich soil and hence is easy to grow.

DIRECTIONS (Qs. 39-40): *Read the following information and the sentences A, B, C, D, E and F given below it carefully and answer the given questions.*

Town ABC has seen very few takers. 48% fiats are lying unsold ever since its construction. Prices should be cut by 20% per sq feet in order to match the ongoing market price of ₹ 6800 per sq feet. This would bring the buyers back and ideal with this slump in sales.

A. Market price of the flats are controlled by the government which cannot be altered by independent authorities.

B. All present flats are being sold at more than more ₹ 8000 per sq feet.

C. The township ABC is located far from the main city and has poor transport facilities for the same.

D. In order to recover the investments made by the builders, they must make a profit of minimum ₹ 10000 per sq feet per flat sold.

E. No buyer is willing to pay a price more than the ongoing market rate.

F. There have been numerous complaints about poor construction material and apathy of builders towards the same by people already residing in the township.

39. Which of the given statements weakens the promise that lack of buyers is only because of the price 0 the flats?

    (a) Only D   (b) A and B
    (c) Only A   (d) A and E
    (e) C and F

40. Which of the following may prove that 30% price cut may not be a feasible step to be taken by the builders?

    (a) Only D   (b) A and B
    (c) Only E   (d) E and B
    (e) Only B

DIRECTIONS (Qs. 41-43): *Study the following information and answer the given questions.*

Y is the sister of J. L is the wife of J. L has only one son R. K is the mother of L. K is married to D. D has only one son and only one daughter.

41. As per the given information, how is J related to K?

    (a) Son   (b) Son-in-law
    (c) Niece   (d) Nephew
    (e) Daughter-in-law

42. As per the given information, how is R related to Y?

    (a) Nephew   (b) Cannot be determined
    (c) Uncle   (d) Niece
    (e) Aunt

43. If L is the sister of B, then how is B related to J?

    (a) ster-in-Iaw   (b) Cannot be determined
    (c) Brother   (d) Brother-in-law
    (e) Uncle

DIRECTIONS (44-48): *Study the following information and answer the questions given below.*

In a conference 8 people Anshu, Ankit, Kapil, Sachin, Jatin, Nikhil, Sneha and Rohit from different cities Haldia, Patna, Gaya, Kochi, Mumbai, Delhi, Shimla and Pune not necessarily in same order sitting around a rectangular table.

Three persons are sitting on each longer side and each on the smaller sides. Sachin is sitting second to the right of the person who is from Pune. Jatin is sitting third to the left of the person who is from Delhi. Nikhil and Sneha are sitting opposite each other. Kapil is sitting diagonally opposite the person from Shimla. Ankit is sitting opposite the person who is from Haldia. The person from Kochi is sitting second to the right of the person from Mumbai and second to the left of Anshu, who is not sitting near the person who is from Shimla. Sneha is sitting on the smaller side and to the right of the person who is from Shimla. Persons from Mumbai and Kochi are not on the same side of the table. The person from Kochi is sitting third to the right of the person from Pune, who is not sitting diagonally opposite the person from Patna. The person from kochi is third to the left of Kapil. Nikhil sits second to the left of Rohit. The person from Patna sits opposite to the person from Mumbai.

44. Who is sitting third to the right of the person from Delhi?

    (a) Jatin   (b) Person from Mumbai
    (c) Anshu   (d) Person from Shimla
    (e) None of these

45. Who is definitely sitting diagonally opposite to Sachin?

    (a) Anshu   (b) Kapil
    (c) Person from Patna   (d) Person from Gaya
    (e) Can't be determined

46. According to the sitting arrangement what will come in place of question mark?

    Sachin : Kochi :: Kapil : ?

    (a) Delhi   (b) Mumbai
    (c) Gaya   (d) Pune
    (e) None of these

47. From which city does Anshu belong?

    (a) Patna   (b) Haldia
    (c) Mumbai   (d) Pune
    (e) Can't be determined

48. Which of the following combinations is definitely correct?

    (a) Rohit -Pune   (b) Sachin - Mumbai
    (c) Anshu-Gaya   (d) Sneha - Kochi
    (e) None of these

DIRECTIONS (Qs. 49-50): *Read the given information carefully and answer the given question.*

Ram is 9 m to the south of Ramsey. Ramsey is 5 m to the east of Ramandeep. Ramandeep is 4 m to the north of Raman. Ram Singh is 3 m west of Raman. Ramanand is 7 m south of Ram Singh. RamKunj is 8 m east of Ramanand.

49. If Ramada is 5 m to the west of Ram, then what is the distance between Raman and Ramada?
   (a) 8m (b) 9m
   (c) 5m (d) 2m
   (e) 6m

50. How far and in which direction is Ramsey from Ramkunj?
   (a) 11 m to the south (b) 7 m to the north
   (c) 11 m to the north (d) 7 m to the south
   (e) 11 m to the west

Quantitative Aptitude

DIRECTIONS (Qs. 51-55): *What approximate value will come in place of question mark (?) in the given questions? (You are not expected to calculate exact value.)*

51. 105.27% of $1200.11 + 11.80\%$ of $2360.85 = 21.99\%$ of $? + 1420.99$
   (a) 500 (b) 240
   (c) 310 (d) 550
   (e) 960

52. 0.98% of $7824 + 4842 \div 119.46 - ? = 78$
   (a) 30 (b) 60
   (c) 40 (d) 50
   (e) 70

53. $(41.99^2 - 18.04^2) - ? = 13.11^2 - 138.99$
   (a) 4004 (b) 1200
   (c) 1720 (d) 8432
   (e) 1410

54. $24.96^2 / (34.11 + 20.05) + 67.96 + 89.11 = ?$
   (a) 884 (b) 546
   (c) 252 (d) 424
   (e) 170

55. $\sqrt{(2025.11)} \times \sqrt{(256.04)} + \sqrt{(399.95)} \times \sqrt{(?)} = 33.98 \times 40.11$
   (a) 1682 (b) 1024
   (c) 1582 (d) 678
   (e) 1884

DIRECTIONS (Qs. 56-60): *What should come in place of question mark (?) in the fol/owing number series?*

56. 13   13   19   43   103   ?
   (a) 221 (b) 227
   (c) 223 (d) 217
   (e) None of these

57. 27   13   12 16.5 ?   75
   (a) 30.5 (b) 31.5
   (c) 37.5 (d) 39.5
   (e) None of these

58. 17   19   42   132   ?   2690
   (a) 532 (b) 536
   (c) 538 (d) 546
   (e) None of these

59. 25   29   67   217   ?   4501
   (a) 885 (b) 887
   (c) 889 (d) 891
   (e) None of these

60. 21   38   59   84   113   ?
   (a) 138 (b) 140
   (c) 142 (d) 146
   (e) None of these

DIRECTIONS (Qs. 61-65) : *In the given questions, two equations numbered I and /I are given. Solve both the equations and mark the appropriate answer.*

   (a) $x > y$ (b) $x \geq y$ (c) $x < Y$
   (d) Relationship between x and y cannot be determined
   (e) $x \leq y$

61. I. $6x^2 + 25x + 24 = 0$ II. $12y^2 + 13y + 3 = 0$
62. I. $12x^2 - x - 1 = 0$ II. $20y^2 - 41y + 20 = 0$
63. I. $10x^2 + 33x + 27 = 0$ II. $5y^2 + 19y + 18 = 0$
64. I. $15x^2 - 29x - 14 = 0$ II. $6y^2 - 5y - 25 = 0$
65. I. $3x^2 - 22x + 7 = 0$ II. $y^2 - 20y + 91 = 0$

DIRECTIONS (Qs. 66-70): *In each of the given questions, one questions and two statements numbered I and II are given. you have to decide whether the data given in both statements are sufficient to answer the question or not. Read both the satements and give answer*

   (a) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
   (b) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
   (c) if the data either in statement I alone or in statement II alone are sufficient to answer the question.
   (d) if the data in both statements I and II together are not sufficient to answer the question.
   (e) if the data in both the statements I and II together are necessary to answer the question.

66. By how many years is Rasika younger than her brother Sunil?
   I. Ratio between Rasika's present age and Sunil's age after four years is 5 : 7 respectively.
   II. Ratio between Rasika's age four years ago and Sunil's present age is 2 : 3 respectively.

67. What is the quantity of milk in 80 litres of mixture of milk and water?
   I. If 8 litres of mixture is replaced by equal quantity of water the ratio of milk and water in the mixture becomes 27 : 13 respectively.
   II. If 16 litres of mixture is replaced by equal quantity of milk, the ratio of milk and water in the mixture becomes 4 : 1 respectively.

68. Neeraj invested certain amount in schemes A and B for 2 ears in the ratio of 3 : 5 respectively. The schemes A and B offer compound interest compound annually and simple interest respectively. What is the amount invested in scheme A?
    I. Rate of interest offered by scheme A is 20% per annum and the rate of interest offered by scheme B is 25% less than that offered by scheme A.
    II. Amount of interest accrued from scheme B is more than the amount of interest accrued from scheme A by ₹ 900.

69. Two friends X and Y start running towards each other at the same time from points A and B respectively and meet after 135 minutes. At what speed is X running?
    I. Point B is 45 km away from point A and speed of X is 150% of the speed of Y.
    II. Distance covered by Y was 18 km.

70. What is the cost of painting two adjacent walls of a hall having no door or window at ₹450 per m²?
    I. Length and breadth are in the ratio of 3 : 2 respectively.
    II. Perimeter of the hall is 50 m and height is one-fourth of the perimeter.

71. The speed of the boat in still water is 5 times the speed of the current. It takes 1.1 hours to row to point B from point A downstream. The distance between point A and point B is 13.2 km. How much distance will it cover in 312 minutes upstream?
    (a) 43.2 km   (b) 48 km
    (c) 41.6 km   (d) 44.8 km
    (e) 40 km

72. 24 men can complete a piece of work in 15 days. 2 days after the 24 men started working, 4 men left the work. How many more days will the remaining men now take to complete the remaining work?

    (a) $15\frac{3}{5}$ (b) $16\frac{4}{5}$

    (c) $11\frac{2}{5}$ (d) $10\frac{4}{5}$

    (e) $14\frac{1}{5}$

73. In a primary school, the average weight of male students is 65.9 kg and the average weight of female students is 57 kg. If the average weight of all the students (both male and female) is 60.3 kg and the number of male students in the school is 66, then what is the number of female students in the school?
    (a) 154   (b) 162
    (c) 168   (d) 180
    (e) 112

74. Shashi had a sum of money. Two-third of the total money he invested in scheme A for 6 years and rest of the money he invested in scheme B for 2 years. Scheme A offers simple interest at a rate of 12% per annum and scheme B offers compound interest (compounded annually) at a rate of 10% per annum. If the total sum obtained from both the schemes is ₹ 2805, what was the total amount invested by him in scheme A and scheme B together?
    (a) ₹ 1500   (b) ₹ 5100
    (c) ₹ 1000   (d) ₹ 2000
    (e) ₹ 1464

75. The radius of a cylinder is 5 m more than its height. If the curved surface area of the cylinder is 792 m². What is the volume of the cylinder? (in m³)
    (a) 5712   (b) 5244
    (c) 5544   (d) 5306
    (e) 5462

76. A dealer marked the price of an item 40% above the cost price. Once he gave successive discounts of 20% and 25% to a particular customer. As a result, he incurred a loss of ₹ 448. At what price did he sell the item to the mentioned customer?
    (a) ₹ 2416   (b) ₹ 2352
    (c) ₹ 2268   (d) ₹ 2152
    (e) ₹ 2578

77. The respective ratio between Parul's present age and Rohit's present age is 7: 5. The sum of their ages 5 years from now will be 94. After how many years, Rohit's age will be equal to Parul's present age?
    (a) 21   (b) 7
    (c) 14   (d) 18
    (e) 24

78. 35 kg of a type of sandal powder (type A) which costs ₹ 614 per kg was mixed with certain amount of another type of sandal powder (type B), which costs ₹ 695 per kg. Then the mixture was sold at ₹ 767 per kg and 18% profit was gained. What was the amount of type B sandal powder in the mixture?
    (a) 24 kg   (b) 28 kg
    (c) 32 kg   (d) 36 kg
    (e) 20 kg

79. Ashok left from place A (towards place B) at 8 am and Rahul left from place B (towards place A) at 10 am. The distance between place A and place B is 637 km. If Ashok and Rahul are travelling at a uniform speed of 39 km/h and 47 km/h respectively, at what time will they meet?
    (a) 5 : 30 pm   (b) 4 : 30 pm
    (c) 5 : 00 pm   (d) 4 : 00 pm
    (e) 3 : 30 pm

80. A started with an investment of ₹ 28000. After 2 months, B joins with ₹ 20000 and after another two months C joins with ₹ 18000. At the end of 10th month from start of the business, if B withdraws ₹ 2000 and C withdraws ₹ 2000 what is the respective ratio in which profit should be distributed among A, B and C at the end of the year?
    (a) 12 : 7 : 5   (b) 12 : 9 : 5
    (c) 12 : 6 : 3   (d) 14 : 7 : 5
    (e) 11 : 9 : 7

81. The metal to be used for covering a cylinder having external radius 5 cm, height 21 cm and thickness 1 cm is to be cast from a cylinder. What should be the height of the cylinder of radius 3 cm from which this casting can be done?
    (a) 12 cm   (b) 39 cm
    (c) 21 cm   (d) 20 cm
    (e) 18 cm

82. A, B and C can alone complete a work in 15, 25 and 30 days respectively. A and B started the work and after some days A is replaced by C. Now the work is completed in a further of $6\frac{4}{11}$ days. How much of the total work did B did?

(a) $\dfrac{4}{11}$ (b) $\dfrac{4}{15}$

(c) $\dfrac{5}{12}$ (d) $\dfrac{5}{11}$

(e) $\dfrac{2}{13}$

83. An article is marked at ₹18,000. A trader bought it at successive discounts of 25% and 10% respectively. He spent ₹1,350 on its transportation to his shop and then sold the article for ₹15,000. What is trader's profit% in the whole transaction?

(a) $16\dfrac{2}{3}\%$ (b) 28%

(c) 30%   (d) $11\dfrac{1}{9}\%$

(e) 20%

84. A person lent out certain sum on simple interest and the same sum on compound interest at a certain rate of interest per annum. He noticed that the ratio between the difference of compound interest and simple interest of 3 years and 2 years is 16 : 49. The rate of interest per annum is

(a) 9%   (b) $8\dfrac{1}{7}\%$

(c) $13\dfrac{1}{3}\%$ (d) 7%

(e) $6\dfrac{1}{4}\%$

85. A box contains 2 blue, 3 green and 5 red balls. If three balls are drawn at random, what is the probability that all balls are different in color?

(a) $\dfrac{3}{10}$ (b) $\dfrac{1}{4}$

(c) $\dfrac{3}{7}$ (d) $\dfrac{4}{11}$

(e) $\dfrac{2}{9}$

DIRECTIONS (Qs. 86-90): *Study the following graph and answer the given questions.*

Number of Vehicles Manufactured By Two Companies during Six Years (in thousands)
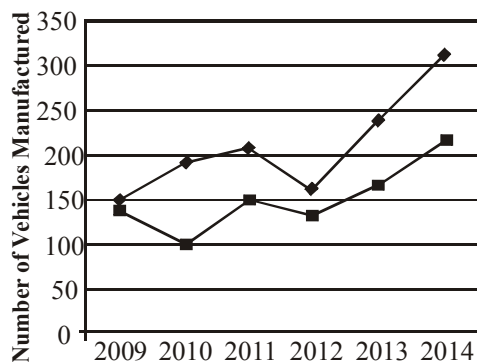
	2009	2010	2011	2012	2013	2014
◆ Company P	150	190	220	160	240	310
■ Company Q	130	100	160	120	180	210

86. What is the difference between total number of vehicles manufactured by company P in 2011, 2012 and 2014 together and company Q in 2012, 2013 and 2014 together? (in thousands)

(a) 120   (b) 210

(c) 100   (d) 270

(e) 180

87. What is the average number of vehicles manufactured by company Q over six years? (in thousands)

(a) 170   (b) 150

(c) 90   (d) 60

(e) 130

88. What is the percentage decrease in number of vehicles manufactured by company from 2011 to 2012?

(a) $45\dfrac{3}{11}\%$ (b) $33\dfrac{3}{11}\%$

(c) $26\dfrac{6}{19}\%$ (d) $27\dfrac{3}{11}\%$

(e) $33\dfrac{4}{11}\%$

89. Out of the number of vehicles manufactured by company P in 2013, 15000 pieces were found defective and out of the number of vehicles manufactured by company Q in 2014, 10000 pieces were found defective. What is the respective ratio of non-defective vehicles manufactured by company P in 2013 and Q in the 2014?

(a) 9 : 8   (b) 11 : 4

(c) 3 : 8   (d) 5 : 8

(e) 7 : 4

90. In year 2015, there was an increase of 30% in number of vehicles manufactured by company P as compared to vehicles manufactured by same company in the year 2010. What is the total number of vehicles manufactured by the same company in the year 2015?

(a) 247   (b) 297

(c) 211   (d) 310

(e) 283

DIRECTIONS (Qs. 91-95): *Refer to the pie-chart and the table and answer the given questions.*

Distribution of Total Number of Cellular Phones (Both Nokia and Samsung) **Sold by Six Stores in October**
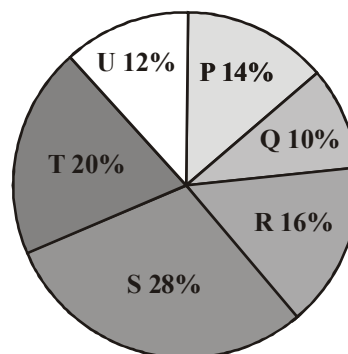
Store	Respective Ratio of Number of Nokia Cellular Phone Sold to the Number of Samsung Cellular Phones Sold
P	4 : 3
Q	3 : 1
R	5 : 4
S	7 : 6
T	1 : 4
U	11 : 10

91. What is the average number of Nokia cellular phones sold by stores P, R, S and T together?
    (a) 1007 (b) 1048
    (c) 3908 (d) 1006
    (e) 996

92. Number of Nokia cellular phones sold by store R is what percent more than the total number of Samsung cellular phones sold by stores P and Q together?
    (a) $23\frac{1}{17}\%$ (b) $19\frac{5}{17}\%$ (c) $20\frac{3}{17}\%$
    (d) $17\frac{11}{17}\%$ (e) $4\frac{24}{119}\%$

93. What is the central angle corresponding to total number of cellular phones (both Nokia and Samsung) sold by store S?
    (a) 99.2° (b) 93.6°
    (c) 100.8° (d) 97.4°
    (e) 101.2°

94. What is the respective ratio between number of Nokia cellular phones sold by store S and total number of Samsung cellular phones sold by stores T and U together?
    (a) 43 : 72 (b) 49 : 76
    (c) 43 : 76 (d) 49 : 72
    (e) None of these

95. Total number of cellular phones (both Nokia and Samsung) sold by stores Q increased by 15% from October to November and total number of cellular phones (both Nokia and Samsung) sold by store T increased by 5% from October to November. What was the total number of cellular phones sold by stores Q and T together in November?
    (a) 3540 (b) 3720
    (c) 3640 (d) 3420
    (e) 3880

DIRECTIONS (Qs. 96-100): *Study the table and answer the given questions.*

Total Exports of Six Countries over Five Years (in ₹ crore)

Year \ Country	2011	2012	2013	2014	2015
P	20	40	60	45	90
Q	30	25	15	50	100
R	50	55	70	90	65
S	45	60	20	15	25
T	60	50	55	100	110
U	24	40	60	75	120

Note: Profit = Exports - Imports

96. What was the profit of all countries together in year 2015 if the total imports of all the countries together was ₹ 385 crore?
    (a) 125 (b) 160
    (c) 280 (d) 240
    (e) 200

97. If the respective ratio of export to import in country S and country U is 1 : 2 and 4 : 1 in the year 2011, then what is the total imports of country U and S together in that particular year? (in ₹ crore)
    (a) 52 (b) 22
    (c) 36 (d) 96
    (e) 44

98. If the export of country P in the year 2016 is 20% more than the total exports of country Q in 2014 and export of country T in 2013 together, then what was the profit of P in the year 2016 if its imports were ₹ 92 crore for that year? (in ₹ crore)
    (a) 10 (b) 58
    (c) 22 (d) 46
    (e) 34

99. By what percent the average export of country T over all the given years more than the average export of country R over all the given years?
    (a) $13\frac{7}{11}\%$ (b) $9\frac{1}{11}\%$
    (c) $13\frac{5}{7}\%$ (d) $4\frac{7}{11}\%$
    (e) $12\frac{1}{7}\%$

100. What is the percent increase in the exports of all the countries together in the year 2012 to 2014? (Rounded off to two digits after decimal?
    (a) 88.99 (b) 72.39
    (c) 38.89 (d) 62.89
    (e) 40.60

English language

DIRECTIONS (Qs. 101-110) : *Read the followling passage carefully and answer the given questions. Certain words/phrases have been given in **bold** to help you locate them while answering some of the questions.*

As the government prepare to empty its filling candidates and heads for the hot and dusty plans to solicit votes. It is visibly **exuding** optimism about the economy. According to its non-elected representatives, all the lead indicators seem to be showing signs of a revival with the first glimmer of some incipient growth pushing through the enveloping groom. Steel, cement, auto, fast moving consumer goods (such as soaps and detergents), food items, beverages, volume' of goods moved by the railways have all shown some improvement in January after having shrunk in the previous two months.

But before we start congratulating the government for its excellent economic management, let's hit the pause button for a moment. How much of the Indian economy's resilience is owed to governmental intervention? Ok, is there a strategy at all? One of

the economy's mainstays for over a decade has been service. This contributes to over 50% of the country's GDP and has been providing enormous growth impulse over the past few years. If you were to listen to the government representatives, it would seem as if they had foreseen the coming age of services and had designed that structure. The truth is somewhat different. There are many reasons behind the extraordinary growth of services. One of the reasons is the kind of elaborate rent-seeking structures erected by the government in the manufacturing sector. Any person wanting to set-up a manufacturing facility in India still has to fill a large number of outstretched palms, making the operations costly from day one.

Here's another unique aspect of the economy for which politicians routinely take credit. One of the saving graces for the Indian economy during this episode of the downturn is the safety net expected to be provided by Indian consumers, even as the international economy winds down and **eschews** consumption of goods made in India.

This has had a **deleterious** impact on Indian exports, leading many exporters to scale down their operations and restructure their businesses. Fortunately, for the planners and the administrators, the impact of the global slowdown is likely to be cushioned, to a large extent, by the gigantic Indian domestic market, which will continue consuming and providing the growth push to the economy.

Again, it's not as if some wise person in government woke up one morning and presciently decreed that hence forth the country would focus only on the domestic markets. The government has always felt that exports should be the **apposite** strategy for economic growth, just like some of the other emerging countries.

Guess what? Exporters also have to manufacture and that is quite an endurance test in India. Plus, the intricate structure built around promoting exports also worked as a huge deterrent. The government also did not quite see exports as an alternative, viable economic growth model till the Southeast Asian success story burst on to the scene. Hence, till then exports did not quite get the required push. So, no grand design here too.

Unlike in USA and various other European economies, where the government provides unemployment benefits as part of their social contract, Indians have to fend for themselves. In the current downturn, for example, many Indians-especially in the urban and semi-urban settlements-are wary of spending because of uncertainties surrounding their jobs. This has impacted consumption but, conversely, is bound to improve the savings rate.

The credit, therefore, should go to the Indian citisen who, despite the varous hurdles and inconveniences, is using his ingenuity to improve his lot at all times. This collective strength has not been forged by some steely policy push, but has developed by default, almost in line' with Charles Darvins's theory of survival.

101. According to the author, one of the reasons behind services flourishing in our country is
   (a) financial support provided by the government
   (b) funding by theele
   (c) availability of a pool of experts from developed countries in this sector
   (d) availability of young working population
   (e) Other than those given as options

102. Which of the following is most nearly the opposite in meaning to the word 'Exuding' as used in the passage?
   (a) Excluding   (b) Displaying
   (c) Percolating   (d) Closing
   (e) Concealing

103. Which of the following is most nearly the same in meaning to the word 'Apposite' as used in the passage?
   (a) Appropriate   (b) Opposite
   (c) Further   (d) Soft
   (e) Believable

104. According to the author, one of the reasons why India's economy managed to sail through the economic downturn was
   A. There was demand for Indian goods from domestic consumers even when internationally it had declined.
   B. The politicians had foreseen the trouble and could prepare the country to efficiently deal with it.
   C. It was least affected by the economic downturn.
   (a) Only B   (b) Only C
   (c) A and B   (d) Only A
   (e) A and C

105. Which of the following is the central theme of the passage?
   (a) Social contract-A Must in Every Country
   (b) Hurdles Created by the government for the Common Man
   (c) Government's Campaign to Once Again Regain Confidence of the Masses
   (d) Economic Growth-A Result of Natural Forces rather than the government
   (e) Service Industry-The Backbone of Every Economy across the Globe

106. The author attributes the improvement (or maintenance of) the economic condition of the country to
   A. The government, as it could foresee a dwindle in the economy and could take suitable measures to tackle it.
   B. Appropriate policies to push people to spend more.
   C. The Economy for it is surviving on its own either through consumption or saving.
   (a) Only B   (b) Only C
   (c) A and B   (d) Only A
   (e) A and C

107. Which of the following is most nearly the same in meaning to the word 'Eschews' as used in the passage?
   (a) Faces   (b) Avoids
   (c) Accepts   (d) Bestows
   (e) Ridicules

108. Which of the following is most nearly the opposite in meaning to the word 'Deleterious' as used in the passage?
   (a) Positive   (b) Harmful
   (c) Disastrous   (d) Zilch
   (e) Additional

109. Which of the following correctly explains the phrase 'Wary of' as used in the passage regarding spending behaviour of citizens?
   (a) Careless   (2) Miserly
   (c) Upset about   (d) Cautious about
   (e) Fearless in

110. Which of the following is **not true** in the context of the passage?
    (a) Traditionally the government did not believe exports to be providing a boost to the economy.
    (b) Most unemployed Indians today reap the benefits provided under social contracts.
    (c) The author is a firm believer of the fact that the government has played the smallest role in supporting the economy of the country.
    (d) The government is portraying a rosy picture of the economy to gain people's confidence.
    (e) All the given statements are true.

DIRECTIONS (Qs. 111-115): *Which of the phrases given below the sentence should replace the word/phrase given in **bold** in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, select 'No correction required' as your answer.*

111. People with persistent headaches are hence as likely to develop bed's palsy even as research **amount to** other factors which could increase the risk of conditions like diabetes.
    (a) accounting at   (b) accounting towards
    (c) account for   (d) accounted at
    (e) No correction required
112. The actor and the producer **has part** ways due to differences over communication.
    (a) have parted ways   (b) have been way parting
    (c) have parting away   (d) have part ways
    (e) No correction required
113. The State is **reeled from** the impact of acute financial crisis around the world.
    (a) reeled at   (b) reeling away
    (c) reel for   (d) reeling from
    (e) No correction required
114. The reading club **soon becoming** a moving part for literature enthusiasts.
    (a) soon became   (b) becoming soon
    (c) was became soon   (d) soon is become
    (e) No correction required
115. **Having been confined** to their homes for a week after a leopard was sighted, the villagers grew restless and frustrated.
    (a) As confine to   (b) Have being confining at
    (c) Been confining at   (d) Being confined for
    (e) No correction required

DIRECTIONS (Qs. 116-125): *Read the following sentences to find out whether there is any grammatical mistake/error in them.*

The error, if any, will be in one part of the sentence. Mark the part with the error as your answer. If there is no error, mark 'No error' as your answer. (Ignore the errors of punctuations If any)

116. The beautician listed out/a few quick tips that/one needs to keep in mind/in order to get that perfect holiday radiant.
    (a) The beautician listed out
    (b) a few quick tips that
    (c) one needs to keep in mind
    (d) in order to get that perfect holiday radiant
    (e) No error
117. After weeks of talks,/the two parties failed to resolving / their differences and the makers eventually/decided to look for an alternative.

(a) After weeks of talks
(b) the two parties failed to resolving
(c) their differences and the makers eventually
(d) decided to look for an alternative
(e) No error
118. The Minister said that the State was facing/an acute financial crunch and feared that/the government might be compelled to take/loans to pay the salaries of its employees.
    (a) The Minister said that the State was facing
    (b) an acute financial crunch and feared that
    (c) the government might be compelled to take
    (d) loans to pay the salaries of its employees
    (e) No error
119. States dependent on oil and gas revenues/are growing increasingly anxious about/the ripple effect that fading of prices/may have on their local economies,
    (a) States dependent on oil and gas revenues
    (b) are growing increasingly anxious about
    (c) the ripple effect that fading of prices
    (d) may have on their local economies
    (e) No error
120. Though the year witnessed/a rise in crimes against women,/ the police claimed that their changed images has given/ confidence to women to come forward and lodge complaints.
    (a) Though the year witnessed
    (b) a rise in crimes against women,
    (c) the police claimed that their changed images has given
    (d) confidence to women to come forward and lodge complaints
    (e) No error
121. Although ghost pepper is no longer/the most hottiest chilli in the world, as India's speciest export/ it packs quite a punch.
    (a) Although ghost pepper is no longer
    (b) the most hottiest chilli in the world
    (c) as India's speciest export
    (d) it packs quite a punch
    (e) No error
122. Migraines may doubles/the risk of a/nervous system condition that/causes facial paralysis.
    (a) Migraines may doubles
    (b) the risk of a
    (c) nervous system condition that
    (d) causes facial paralysis
    (e) No error
123. The police tactfully handed/ the farmers' agitation for/higher prices which is created/law and order problem in district every year.
    (a) The police tactfully handed
    (b) the farmers' agitation for
    (c) higher prices which is created
    (d) law and order problem in the district every year
    (e) No error
124. For the past one week,/people had stop working/out of their houses,/fearing a sudden attack.
    (a) For the past one week,
    (b) people had stop working
    (c) out of their houses
    (d) fearing a sudden attack
    (e) No error

125. Mock drills were/carried out by/security agencies at/various locations in the city.
   (a) Mock drills were   (b) carried out by
   (c) security agencies at
   (d) varous locations in the city
   (e) No error

DIRECTIONS (Qs. 126-130): *Rearrange the following six sentences A, B, C, D, E and F in the proper sequence to form a meaningful paragraph, then answer the given questions.*

A. For the balance of power and for the staggered development of the world, it is very important to stop the phenomena of brain-drain.
B. For this purpose, developed nations should help developing countries with necessary money and resources.
C. Ultimately, this will also ensure that each and every nation will have the ability to introduce itself as a developed nation.
D. This will help a particular country to use all skilled citizens for development and proliferation.
E. This will ensure that each and every individual on this planet can have a good standard of living.
F. But to build these skilled workers at their native places, it is also important to provide them enough work opportunities and living facilities.

126. Which of the following should be the THIRD sentence after the rearrangement?
   (a) A   (b) B   (c) F
   (d) D   (e) E

127. Which of the following should be the SECOND sentence after the rearrangement?
   (a) A   (b) B   (c) C
   (d) D   (e) F

128. Which of the following should be the FIRST sentence after the rearrangement?
   (a) A   (b) B   (c) C
   (d) D   (e) E

129. Which of the following should be the FOURTH sentence after the rearrangement?
   (a) A   (b) B   (c) C
   (d) E   (e) D

130. Which of the following should be the LAST (SIXTH) sentence after the rearrangement?
   (a) A   (b) F
   (c) D   (d) C
   (e) B

DIRECTIONS (Qs. 131-135): *The following sentences have two blanks. Each blank indicates that something has been omitted. Choose the words that best fit the meaning of a sentence as a whole.*

131. After a .... review, it was found that many financial institutions don't have proper   . ...in place and could unwillingly be financing illegal activities.
   (a) routine; checks   (b) periodic; space
   (c) schedule; standard   (d) custom; timing
   (e) suddenly; system

132. The main reason youth unemployment has .... in this region is the depth of the recession in these countries and the chances of improvement are .... unless governments kick-start their economies.

   (a) fallen; negligible   (b) risen; visible
   (c) grown; create   (d) soared; remote
   (e) collapsed; much

133. As the country as a whole more than half the population regular electricity as connections to the national god are .... and generators are expensive.
   (a) deficient; dependable   (b) want; running
   (c) lack; unenviable   (d) short; faded
   (e) requiring; fumy

134. It is .... that 400 Indian passengers will want to fly in or out of the country by the 2050 and unless the airport facility is improved it will be   to handle this traffic.
   (a) though; easier   (b) assume; worrisome
   (c) estimated; difficult   (d) typical; perfect
   (e) expected; able

135. Reform is set to gain .... as much of the spadework for a vibrant economy such as ..... laws on taxes and banking are underway.
   (a) steam; specialising   (b) advantage; fix
   (c) pace; amending   (d) tame; modify
   (e) weight; compensating

DIRECTIONS (Qs. 136-140): *In these questions there are two statements which can be combined into a single statement in a number of different ways without changing their meaning. Below them are given three probable starters A, B and C of such a combined sentence. One, two, three or none of them may be correct. Decide upon which is/are correct, if any and mark the option which denotes your answer. If none of three starters is suitable, mark None as your answer.*

136. The landowners who ruled and made the country rich were not to bothered about educated citizens. Without a good education system, the country has once struggled to create competitive industries.
   A. Since the landowners
   B. Despite making the country
   C. While the landowners struggled
   (a) Only A   (b) Only B
   (c) All of these   (d) A and B
   (e) B and C

137. The mineral rich economy has done extremely well over the past few decade in exporting coal and mineral ores to China and India. Officials argue that the country now has to shift into innovation and technology to keep the economy growing.
   A. Though the mineral rich
   B. Following officials arguing
   C. To shifting into more
   (a) Only A   (b) Only C
   (c) A and C   (d) A and B
   (e) All of these

138. Continued modernisation means access to new ideas and influences as well as social and economic freedom. Youth today can tweet, blog and talk freely about the most sensitive topics.
   A. Though continued modernisation
   B. While youth today can
   C. If access to new ideas
   (a) Only C   (b) Only A
   (c) B and C   (d) A and C
   (e) None

139. The Finance Ministers and central bankers of G20 countries will meet irl Sydney next month. The discussion will centre on the fact that the rich world's banks are wrong to ignore the side effects of their policies on other countries.
     A. In order to discuss
     B. Ignoring the side effects
     C. Next month the G20 countries
     (a) Only A   (b) Only C
     (c) A and C   (d) Only B
     (e) All of these

140. The city government was of the view that some schools were undersised and that cleaning these would save money which could be reinvested. This money has been invested in providing better facilities as other government schools that took in children from these closed citizens.
     A. Although closing
     B. The money saved
     C. When the money has been invested
     (a) A and B   (b) B and C
     (c) All of these   (d) Only B
     (e) None of these

DIRECTIONS (Qs. 141-150): *In the given passage, there are blanks, each of which has been numbered. Against each five words are suggested, one of which fits the blank appropriately. Find the appropriate word in each case.*

Scientists have long known how to convert various kinds of organic materials into liquid form. Trees, shrubs, grasses, weeds, fungi, seaweed and animal fats have all been turned into biofuels to **(141)** cars, ships and even planes. As well as being available to countries **(142)** for sands shale fields or gushers, biofuels can help reduce greenhouse gas emissions by **(143)** an alternative to releasing total fossil fuel carbon into the atmosphere. Frustratingly however **(144)** biofuels in large quantities have always been more expensive and less **(145)** than simply drilling a little dipper for oil. Ethanol is an alcoholic biofuel easily **(146)** from sugary or starchy plants. It has been used to run cars and has been blended into **(147)** petrol. It constitutes about 10% of the fuel **(148)** by America's vehicles today.

Biodiesel from vegetable fats is similarly mixed into diesel in Europe. But these first generation biofuels have **(149)**. They are made from plants rich in sugar, starch or oil that might otherwise be eaten by people or live stock. Ethanol and biodiesel also have limitations as vehicles tunnels-performing poorly in cold weather and capable of **(150)** unmodified engines. In an effort to overcome these limitations dozens of start-up companies emerged over the past decade with the aim of developing second generation biofuels from agricultural waste with no nutritional value and which can be used to replace fossil fuels.

141. (a) fuelling   (b) moving
     (c) power   (d) silent
     (e) invent

142. (a) have   (b) efforts
     (c) without   (d) explore
     (e) replacing

143. (a) researching   (b) precaution
     (c) supporting   (d) providing
     (e) arriving

144. (a) produce   (b) manufacture
     (c) offering   (d) transport
     (e) making

145. (a) trouble   (b) worried
     (c) opportunity   (d) advantage
     (e) convenient

146. (a) disabled   (b) create
     (c) installed   (d) acquired
     (e) formulate

147. (a) originally   (b) conventional
     (c) purely   (d) normally
     (e) free

148. (a) use   (b) waste
     (c) fill   (d) burned
     (e) exploit

149. (a) discouragement   (b) benefits
     (c) drawbacks   (d) flaw
     (e) weak

150. (a) dreadful   (b) harm
     (c) injure   (d) demanding
     (e) damaging

Professional Knowledge (IT)

151. A CASE SQL statement is which of the following?
     (a) A way to establish a data definition in SQL or establish a loop in SQL
     (b) A way to establish an IF-THEN-ELSE in SQL
     (c) A way to establish a loop in SQL
     (d) A way to establish a data definition in SQL
     (e) Establish a loop in SQL and establish an IF-THEN-ELSE in SQL

152. WebApp performance tests are designed to
     (a) assess WebApp usability
     (b) test network performance
     (c) test network connectivity
     (d) evaluate page loading times
     (e) simulate real-world loading situations

153. The result of a SQL SELECT statement is a(n)
     (a) report   (b) file
     (c) page   (d) table
     (e) form

154. A cross life-cycle activity of system development is
     (a) data modelling   (b) fact finding
     (c) prototyping (d) data flow diagram modelling
     (e) object modelling

155. .... is the processes and tools used by managers and executives with the support of the project team to manage employee resistance.
     (a) Resistance management (b) Change management (c) Detailing management (d) Probing management (e) Blasting management

156. .... is the integration of economic, social. cultural and ecological facets of life, enabled by information technologies.
     (a) Business environment (b) Neutralisation
     (c) Nationalisation   (d) Regionalisation
     (e) Globalisation

157. Backward recovery is which of the following?
     (a) Where the before-images are applied to the database.
     (b) Where the after-images and a = before-images are applied to the database.
     (c) Where the after-images are applied to the database.
     (d) Continuing without any recovery
   (e) Switching to an existing copy of the database

158. Criminal hacking is called
    (a) cracking (b) a virus
    (c) a trojan horse (d) a Worm
    (e) blasting
159. Which of the following is used to create and delete views and relations within tables?
    (a) SQL Data Identification Language (b) SQL Data Identification and Manipulation Languages
    (c) SQL Data Relational Language (d) SQL Data Definition Language (e) SQL Data Manipulation Language
160. .... is one of the older and slowest methods an intruder might use to scan a network to determine which of a range of IP addresses map to live hosts.
    (a) Ping sweep (b) Phreaking
    (c) Smurfing (d) War driving
    (e) Brute force cracking
161. Which of the following is not a WebApp Interface mechanism?
    (a) Links (b) Cookies
    (c) Browser (d) Cookies and Links
    (e) Forms
162. Locking may cause which of the following problems?
    (a) Deadlock (b) Versioning (c) Versioning & deadlock (d) Erroneous updates (e) Erroneous updates and deadlock
163. . ..... is a standard for security that is inclined at the network or packet processing layer of network communications, as opposed to the application layer.
    (a) Passive FTP (b) TCP
    (c) SSL (d) S-HTTP
    (e) IPsec
164. A communications medium where data are transformed into light pulses is
    (a) coaxial cable (b) optical fibre
    (c) satellite (d) twisted-pair cable
    (e) copper cable
165. What standard Java package is used to move the cursors?
    (a) Javax swing (b) Java fcio
    (c) Java IO (d) Java facio
    (e) Java awl event
166. What does DLCI stand for?
    (a) Data Link Circuit Identifier
    (b) Data Link Connection Interrupt
    (c) Data Link Connection Indicator
    (d) Data Link Circuit Indicator
    (e) Data Link Connection Identifier
167. Which of the following is the phase of SDLC in which the identified requirements are incorporated into the new system's design?
    (a) Maintenance (b) Physical layout
    (c) Requirement design (d) Systems design
    (e) Systems blueprint
168. A procedural program stores .... .in a collection of variables and a set of .... perform operations on it.
    (a) parameters; arguments (b) data; functions
    (c) assets; actions (d) strings; operators
    (e) numbers; arguments'
169. A DBMS performs several important functions that guarantee the integrity and consistency of the data in the database. Which of the following is not one of those functions?
    (a) Data integrity management
    (b) Data reports
    (c) Security and storage management
    (d) Data storage management
    (e) Security management
170. In addition to an internet connection, which of the following is needed to?
    (a) Telnet client (b) Scanner
    (c) Mail client (d) HP client
    (e) Web browser
171. .... is the term for the use of deception to get someone's sensitive information.
    (a) Identity theft (b) Personal engineering
    (c) Spoofing (d) Social engineering
    (e) Hacking
172. Which of the following techniques provides redundancy by using two disks and two controllers?
    (a) Disk striping
    (b) Disk striping with parity
    (c) Drive mirroring
    (d) Drive mirroring and disk striping
    (e) Drive duplexing
173. Webpages can be created using
    (a) only Web authoring software
    (b) only macromedia dreamwaver
    (c) any Word processor
    (d) only Microsoft products
    (e) only Microsoft frontpage
174. In what kind of storage, we can easily insert, delete, concatenate and rearrange substrings?
    (a) Stack (b) Linked list
    (c) Dedicated list (d) Queue
    (e) Array
175. .... are two Important technologies for developing the Semantic web.
    (a) XML and RDF (b) XML and HTML
    (c) RDF and HTML (d) Wi-Fi and RDF
    (e) Wi-Fi and XML
176. Which of the following is not a testable Web App security element?
    (a) Encryption
    (b) Authentication and Encryption
    (c) Firewalls
    (d) Authentication
    (e) Penetration
177. Which of the following wildcard masks is most useful for matching all IP packets in subnet 10.1.128.0, mask 255.255.255.0?
    (a) 0.0.0.0 (b) 0.0.0.255
    (c) 0.0.0.240 (d) 0.0.0.31
    (e) 0.0.15.0
178. Common Gateway Interface (CGI) is which of the following?
    (a) An interface that accepts and returns data that may be written in SOL.
    (b) A small program that executes within other application and is stored on the server.
    (c) A small program that executes within other application and is stored on the client.
    (d) A small program that executes within other application and
    (e) An interface that accepts and returns data that may be written in any language that poroduce executable file.

179. Which of the following are five built-in functions provided by SQL?
    (a) SUM, AVG, MIN, MAX, NAME
    (b) MIN, MAX, MULT, DIV, NAME
    (c) SUM, AVG, MULT, DIV, MIN
    (d) SUM, AVG, MIN, MAX, MULT
    (e) COUNT, SUM, AVG, MAX, MIN
180. Every host computer on the internet has a(n)
    (a) similar IP address (b) unique 10-digit number (c) common name and number
    (d) unique I P address (e) unique 15-digit number
181. .... maps domain name to their IP addresses.
    (a) Wi-Fi   (b) DNS
    (c) HTML   (d) XML
    (e) Java
182. Which of the following forms does not describe parallel ATA devices?
    (a) SCSI   (b) IOE and DOE
    (c) IOE   (d) DOE
    (e) ATA
183. Which of the following are true of XML?
    (a) XML is too complicated.
    (b) XML is difficult to learn.
    (c) XML is a set of tags designed to tell browsers how to display text on a webpage.
    (d) XML is a set of rules for creating tags to describe data.
    (e) XML is a set of tags designed to tell browsers how to display images on a web page.
184. A .... is an acyclic diagraph, which has only node with in-degree 0, and other nodes have indegree 1.
    (a) Dis-joint tree   (b) Direction oriented tree
    (c) Directed tree   (d) Diagonalised tree
    (e) Undirected tree
185. When new data are to be inserted into a data structure, but there is not available space; this situation is usually called
    (a) Underflow   (b) Overflow
    (c) Houseful   (d) Saturated
    (e) Empty
186. A web facility that helps to find sites with the information and/or services that is desired is
    (a) a hyperlink   (b) the top inner domain
    (c) a search engine   (d) a network access point
    (e) a blog
187. The design tool used to illustrate the logic of a new computer software logic diagram that uses symbols to represent program elements is called a (n)
    (a) data logic chart   (b) dataflow diagram
    (c) software logic diagram (d) system flowchart
    (e) entity relationship illustration
188. Frame relay
    (a) does not use error correction routines
    (b) is used by facsimile machines
    (c) uses error-correction routines
    (d) does not work weel on the internet
    (e) is an outdated technology
189. A network covering a large geographic area is usually referred to as a(n)
    (a) huge area network   (b) wide area network
    (c) internetwork   (d) local area network
    (e) intranet

190. A home page is
    (a) the web page that identifies a website
    (b) a webpage you eventually reach by clicking a series of hyperlinks
    (c) a web page created by an individual home user, as opposed to the one created by a corporation
    (d) the last page of the web site
    (e) the web page you like to visit the most
191. What type of join is needed when you wish to include rows that do not have matching values?
    (a) Equi-join   (b) Indefinite join
    (c) Intermediate join   (d) Natural join
    (e) Outer join
192. The UML designation for a public class member is
    (a) the symbol @   (b) the symbol #
    (c) the minus symbol (−) (d) the plus symbol (+)
    (e) the word public
193. Which of the following statements about Stacks is incorrect?
    (a) New nodes can only be added to the top of the stack.
    (b) Stacks can be implemented using linked lists.
    (c) Stacks are first-in, first-out data structures.
    (d) The last node (at the bottom) of a stack has a null (0) link.
    (e) Stacks are very useful.
194. ---------- is the process whereby media files such as a video start playing as they are downloading.
    (a) Streaming   (b) Pushing
    (c) Dragging   (d) Flashing
    (e) Pulling
195. In TPS systems, an output that signifies that a specific transaction has taken place is called a(n)
    (a) detail report   (b) action document
    (c) inception report   (d) exception report
    (e) summary report
196. Which of the following are placeholders for literal values in a SQL query being sent to the database
    (a) reduction and resolution variables
    (b) resolution variables
    (c) reduction variables
    (d) assimilation variables
    (e) bind variables
197. A data structure where elements can be added or removed at either end but not in the middle is called
    (a) requeue   (b) queues
    (c) dequeue   (d) linked lists
    (e) stacks
198. Malicious software is known as
    (a) disasterware   (b) badware
    (c) illegalware   (d) malware
    (e) maliciousware
199. When you will visit websites spyware may be substantially downloaded. This is called a
    (a) logic bomb   (b) drive-by download
    (c) virus   (d) drive-in download
    (e) spyot
200. The CMM Level at which measurable goals for quality and productivity are established in
    (a) Level 1   (b) Level 3
    (c) Level 5   (d) Level 4
    (e) Level 2

HINTS & SOLUTIONS

Sol. (Q. Nos. 1 – 5) As per the given information, seating arrangement eight person is as below
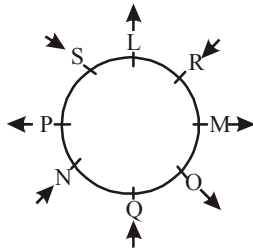
1. (b)   2. (a)   3. (a)   L is facing outside
4. (e)   5. (e)   6. (a)

Sol. (Q. Nos. 6-10) As per the given information, seating arrangement of persons is given below

| P | Q | S | U | T | R | W | V |
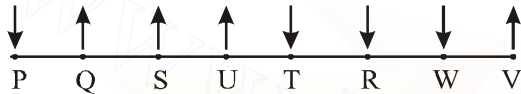
6. (d)   7. (b)   8. (c)
9. (c)   10. (b)

Sol. (Q. Nos. 11 – 15) According to given information in questions, we get the following arrangement of floor and people:

Floor	People
8	D
7	C
6	F
5	A
4	B
3	G
2	E
1	H

11. (d) From the arrangement, two people live between the floors on which A and D live. (i.e.C,f).
12. (e) From the arrangement E lives on the floor immediately below G.
13. (c) According to the arrangement, D lives on 8th floor.
14. (c) According to the arrangement, statement (c) 'F lives on the floor number 6' is true.
15. (e) According to the arrangement, A lives on floor number 5.

Sol. (Q. Nos. 16 – 20) By the given information, day of work, friends name and language are arrange in following table

Day	Mon	Tues	Wed	Thur	Fri	Sat	Sun
Friend's Name	Q	N	R	P	M	S	O
Language	English	Sanskrit	French	Chinese	Spanish	Japanese	German

From the above table, we get the answer of all questions.

16. (c)
17. (c) Q is learning English language on Monday.
18. (b) As per given arrangement, Q and R attend their language class after two day i. e. Chinese and Japanese according to this new arrangement, P is related to the language German.
19. (b)
20. (b) From the arrangement, P has a class on Thursday.
21. (e) According to the question,
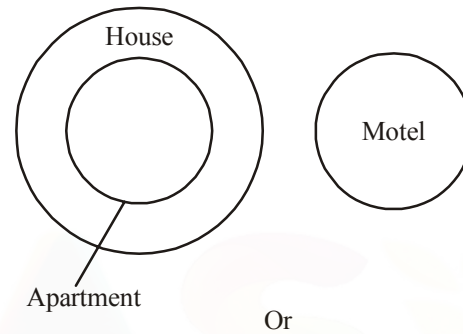
From the diagram,
Either conclusion I or II is true.

22. (b) According to the question,
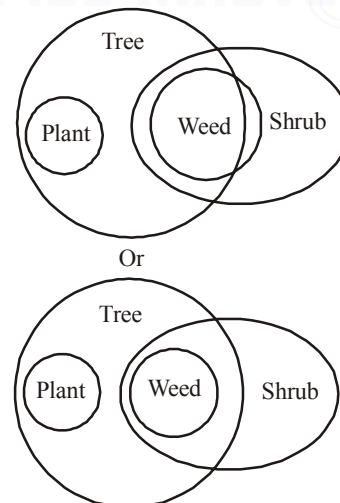
From the diagram, only conclusion II is true.

23. (c) According to the question,
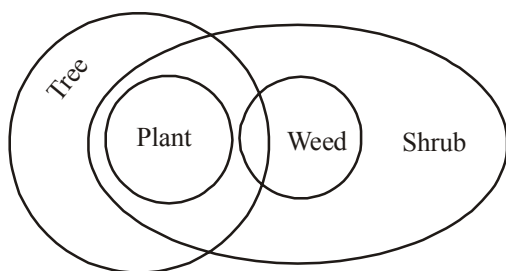
From the diagram,
Both conclusions are true.

24. (a) According to her question,
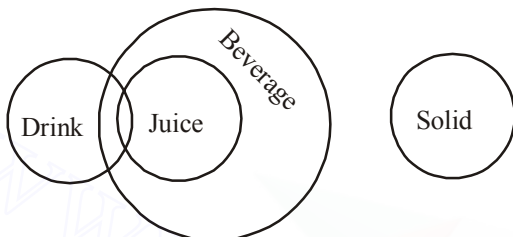
From the diagram only conclusion I is true.

25. (e) According to the question.

Or
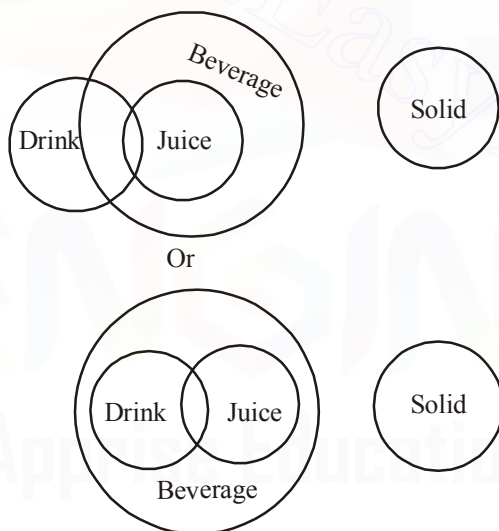
From the diagram,
Either conclusion I or II is true.

Sol. (Q. Nos. 26 – 30) According to the rule in given example, the appropriate steps for the given input are

Input 11 east 54 vent kind 35 over 27 71 bowl
Step I 71 11 east 54 kind 35 over 27 bowl vent
Step II 54 71 11 east kind 35 27 bowl vent over
Step III 35 54 71 11 east 27 bowl vent over kind
Step IV 27 35 54 71 11 bowl vent over kind east
Step V 11 27 35 54 71 vent over kind east bowl

26. (b) From the last step of given input, there are four elements between '35' and 'kind', which are 54 71 vent over.

27. (c) From the step II of given input,
'bowl' is sixth from the right of '71'.

28. (e) In second last step, 'kind', east' are two consecutive elements to the immediate right of 'over'.

29. (d) 'east' is the third element to the left of the sixth element from the left element in the first step.

30. (e) In step II, both 'bowl' and 'vent' appears exactly between '27' and 'over'.

31. (c) From the statement
$N < A = T \geq Z < S / R \geq T$
For conclusion I,
$R \geq T = A > N$
$\Rightarrow R \geq T > N$
$\Rightarrow R > N$
Conclusion I is true.
For conclusion II
$Z < S$ (from statement)
Conclusion II is also true.

32. (b) From the statement
$L \leq E = A > P ; Y > E > R$
For conclusion I,
i.e, $Y > E \geq L$
So, Y is always greater than L.
i.e. $Y > L$
For conclusion II,
i.e. $A = E > R$
i.e. $A > R$
So, conclusion II is true.

33. (d) $D < S \geq L > U$
$\Rightarrow D/Q < S \geq L > U$
$Q < D \Rightarrow$ Can't say
$U > Q \Rightarrow$ False

34. (b) From the statements,
$L \leq E = A > P ; Y \geq E > R$
For conclusion I, $P < A = E > R \Rightarrow P < E > R$
P and R both are less than E
So, conclusion I is not true.
For conclusion II,
$A = E \leq Y$
$\Rightarrow A \leq Y$
So, conclusion II is true.

35. (e) From the statement, $N < A = T \geq Z ; R \geq T ; Z < S$
For conclusion I and II
$R \geq T \geq Z \Rightarrow P \geq Z$
So, either conclusion I or II is true.

36. (b)   37. (d)   38. (d)
39. (e)   40. (a)

Sol. (Q. Nos. 41 – 43) As per the given information, the relation graph of family members is shown below
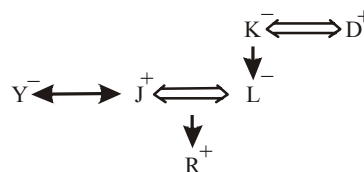
41. (b) Clearly, J is the son-in-law of K.
42. (a) Clearly, R is the nephew of Y.
43. (b) As gender of B is not known, therefore relation of B with J cannot be determined.

Sol: 44-48

KAPIL-HALDIA ANSHU-PATNA JATIN-GAYA

NIKHIL-DELHI   SNEHA-KOCHI

ANKIT-PUNE ROHIT-MUMBAI SACHIN-SHIMLA
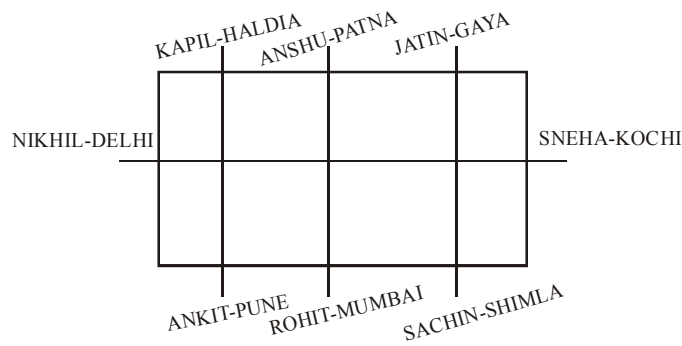
44. (d)   45. (b)   46. (a)
47. (a)   48. (d)

Sol: 49-50

Ramandeep ← 5 ← Ramsey
        4 ↓   ↑ 9
Ram Singh ← 3 ← Raman   Ram
        7 ↓
Ramanand ── 8 ──→ Ramkunj
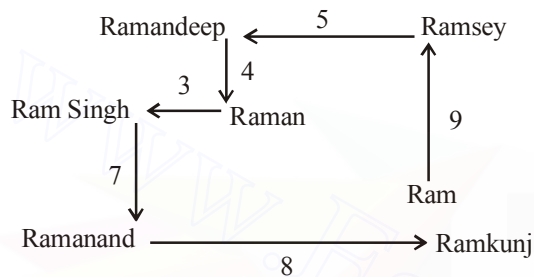
49. (c)   50. (c)

51. (d) 105.27% of 1200.11 + 11.80% of 2360.85 = 21.99% of ? + 1420.99

$\Rightarrow$ 105% of 1200 + 12% of 2360 = 22% of ? + 1421

$\Rightarrow$ 1260 + 2832 = 0.22 × ? + 1421

$\Rightarrow$ 0.22 × ? = 122.2 $\Rightarrow$? = $\dfrac{122.2}{0.22}$ = 555.45 ≃ 550

52. (c) 0.98% of 7824 + 4842 ÷ 119.46 − ? = 78

$\Rightarrow$ 1% of 7824 + 4842 ÷ 120 − 78 = ?

$\Rightarrow$? = 7824 + 40.35 − 78 = 40.59 ≃ 40

53. (e) $(41.99^2 - 18.04^2) - ? = 13.11^2 - 138.99$

$\Rightarrow (42^2 - 18^2) - ? = (13)^2 - 139$

$\Rightarrow \{(42 + 18)(42 - 18)\} - ?\ 169 - 139$

$\Rightarrow \{60 × 24\} - ? = 30$

$\Rightarrow 1440 - ? = 30 \Rightarrow ? = 1410$

54. (e) $24.96^2 / (34.11 + 20.05) + 67.96 + 89.11$

$= \dfrac{25^2}{54.16} + 67.96 + 89.11 = \dfrac{625}{54} + 67.96 + 89.11$

$= 11.5 + 68 + 89 = 168.5 \approx 170$

55. (b) $\sqrt{(2025.11)} × \sqrt{(256.040)} + \sqrt{(399.95)} × \sqrt{?} = 33.98 × 40.11$

$\Rightarrow \sqrt{(2025)} × \sqrt{(256)} + \sqrt{400} × \sqrt{?} = 34 × 40$

$\Rightarrow 45 × 16 + 20 × \sqrt{?} = 34 × 40$

$\Rightarrow 720 + 20 × \sqrt{?} = 1360$

$\Rightarrow 20 × \sqrt{?} = 1360 - 720 \Rightarrow 20 × \sqrt{?} = 640$

$? = (32)^2 = 1024$

56. (c)

13   13   19   43   103   [223]

$+0$ $+6$ $+24$ $+60$ $+120$

$+6$ $+18$ $+36$ $+60$

$+12$ $+18$ $+24$

$+6$ $+6$

57. (a)

27   13   12   16.5   ?   [75]

$27 + 12 = \dfrac{39}{3} = 13$ $16.5 + 75 = \dfrac{91.5}{3} = 30.5$

58. (b)

17   19   42   132   [536]   2690

$17 × 1 + 2$ $19 × 2 + 4$ $42 × 3 + 6$ $132 × 4 + 8$ $536 × 5 + 10$

59. (e)

25   29   67   217   [893]   4501

$×1 + 2^2$ $×2 + 3^2$ $×3 + 4^2$ $×4 + 5^2$ $×5 + 6^2$

60. (e)

21   38   59   84   113   [146]

$+17$ $+21$ $+25$ $+29$ $+33$

61. (c) I. $6x^2 + 25× + 24 = 0$

$D = \sqrt{b^2 - 4ac}$

$D = \sqrt{625 - 4 × 24 × 6}$

$= \sqrt{49} = 7$

$x_1 = \dfrac{-b+7}{12} = \dfrac{-25+7}{12} = \dfrac{-18}{12} = -\dfrac{3}{2}$

$x_2 = \dfrac{-b-7}{12} = \dfrac{-25-7}{12} = \dfrac{-32}{12} = -\dfrac{8}{3}$

$x = \dfrac{-3}{2}, \dfrac{-8}{3}$

II. $12y^2 + 13y + 3 = 0$

$y_1 = \dfrac{-13 + \sqrt{169-144}}{24}$

$= \dfrac{-13+5}{24} = \dfrac{-8}{24} = \dfrac{-1}{3}$

$y_2 = \dfrac{-13 - \sqrt{169-144}}{24} = \dfrac{-18}{24} = \dfrac{-3}{4}$

$y = \dfrac{-1}{3}, \dfrac{-3}{4} \Rightarrow x < y$

62. (c) I. $12x^2 - x - 1 = 0$

$x_1 = \dfrac{-b + \sqrt{D}}{2a} = \dfrac{1 + \sqrt{1 - 4 × 12 × -1}}{24}$

$$= \frac{1+7}{24} = \frac{8}{24} = \frac{1}{3}$$

$$x_2 = \frac{-b - \sqrt{D}}{2a}$$

$$x_2 = \frac{1-7}{24} = \frac{-6}{24} = \frac{-1}{4}$$

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

II $20y^2 - 41y + 20$

$$y_1 = \frac{41 - \sqrt{1681 - 1600}}{40}$$

$$y_2 = \frac{41 - \sqrt{1681 - 1600}}{40}$$

$$y_1 = \frac{41+9}{40} = \frac{50}{40}, y_2 = \frac{32}{40}$$

$$y = \frac{5}{4}, \frac{4}{5} \quad \Rightarrow \quad x < y$$

63.   (b) I. $10x^2 + 33x + 27 = 0$

$$x_1 = \frac{-33 + \sqrt{b^2 - 4ac}}{2a} = \frac{-33 + \sqrt{1089 - 4\times10\times27}}{20}$$

$$x_2 = \frac{-33 - \sqrt{b^2 - 4ac}}{2a}$$

$$x_2 = \frac{-33 - \sqrt{1089 - 1080}}{20}$$

$$x_1 = \frac{-33 + 3}{20}, x_2 = \frac{-33 - 3}{20}$$

$$x_1 = \frac{-30}{20}, x_2 = \frac{-36}{20} = \frac{-9}{5}, x = \frac{-3}{2}, \frac{-9}{5}$$

II. $5y^2 + 19y + 18 = 0$

$$y_1 = \frac{-19 - \sqrt{361 - 4\times18\times5}}{10}$$

$$y_2 = \frac{-19 - \sqrt{361 - 360}}{10}$$

$$y_1 = \frac{-19 + 1}{10}$$

$$y_2 = \frac{-19 - 1}{10} = \frac{-18}{10} = \frac{-9}{5} = \frac{-20}{10} = -2$$

$$y = \frac{-9}{5}, -2 \quad \Rightarrow \quad x \geq y$$

64.   (d) I. $15x^2 - 29x - 14 = 0$

$$x_1 = \frac{29 + \sqrt{841 + 60\times14}}{30}$$

$$= \frac{29 + 41}{30} = \frac{70}{30}$$

$$x_2 = \frac{29 - \sqrt{1681}}{30}$$

$$x_2 = \frac{29 - 41}{30} = \frac{-12}{30}$$

$$x = \frac{7}{3}, \frac{-2}{5}$$

II. $6y^2 - 5y - 25 = 0$

$$y_1 = \frac{5 + \sqrt{25 - 4\times6\times-25}}{12} = \frac{5 + \sqrt{625}}{12} = \frac{30}{12}$$

$$y_2 = \frac{5 - \sqrt{25 - 4\times6\times-25}}{12} \Rightarrow y_2 = \frac{5 - \sqrt{625}}{12} = \frac{-20}{12}$$

$$y = \frac{5}{2}, \frac{-5}{3}$$

So, relationship between x and y can't be determined.

65.   (b) I. $3x^2 - 22x + 7 = 0$
$3x^2 - 21x - x + 7 = 0$
$x(3x - 1) - 7(3x - 1) = 0$
$(3x - 1)(x - 7) = 0$

$$x = \frac{1}{3}, 7$$

II. $y^2 - 20y + 91 = 0$
$y^2 - 13y - 7y + 91 = 0$
$y(y - 7) - 13(y - 7) = 0$
$(y - 13)(y - 7) = 0$
$y = 13, 7 \quad \Rightarrow \quad y \geq x$

66.   (e) Rasika's present age : (Sunil's [present + 4)
= 5 : 7   ...(i)
Rasika's age − 4 : Sunil's present age
= 2 : 3   ...(ii)

$$\frac{R}{S + 4} = \frac{5}{7}$$

$7R = 55 + 20$
$7R - 5S = 20$ ...(i)

$$\frac{R - 4}{S} = \frac{2}{3}$$

$3R - 12 = 2S$
$3R = 2S + 12$ ...(ii)
By solving Eqs.(i) and (ii), we get
R = 20
and   S = 24
∴ Rasika is 4 years younger than her brother Sunil.

67.   (c) By statement − I
M : W = 27 : 13
So, in 80 litres of mixture contain

$$\text{Quantity of milk} = \frac{27}{40} \times 80 = 54 \text{ litres}$$

$$\text{Water} = \frac{13}{40} \times 80 = 26 \text{ litres}$$

By statement - II
If 16 litres of mixture replaced by equal quantity of milk. then in new mixture.

Quantity of milk $= \dfrac{4}{5} \times 80 = 64$ litres

Quantity of water $= \dfrac{1}{5} \times 80 = 16$ litres

Again by statement -I Before mixing water.
Milk is litres and water is 18 litres
Statement - II before mixing milk 48 litres and water is 16 litres
Ratio of milk to water in mixture. $= 3 : 1$

Quantity of milk $= \dfrac{3}{4} \times 80 = 60$ litres

Concept Ratio of milk to water is always same in the mixture. It doesn't depend on Quantity of mixture drawn.

68. (e)

A (3x) compounded annually
(2 years) 20%

Neeraj

B (5x) simple interest (2 years)
15%
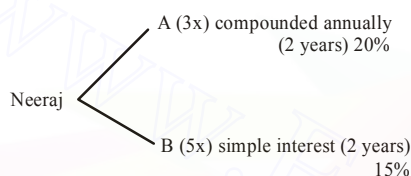
$= \dfrac{5x \times 15 \times 2}{100} - \left\{ 3x\left(1 + \dfrac{20}{100}\right)^2 - 3x \right\} = 900$

$= \dfrac{3x}{2} - \left\{ 3x \times \dfrac{36}{25} - 3x \right\} = 900 = \dfrac{3x}{2} - \left\{ \dfrac{108x - 75x}{25} \right\} = 900$

$\dfrac{75x - 66x}{50} = 900 = 9x = 900 \times 50 = ₹ 5000$

Amount invested in scheme A $= 3 \times 5000 = 15000$

69. (e)

A |———— d=45 ————| B
X   Y
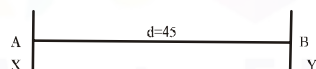
Total time taken = 2 h 15 min
Let speed of y be S km/h
Speed of x be 1.5 S km/h.

Total time taken $= \dfrac{\text{Total distance}}{\text{Total speed}}$

$2\dfrac{1}{4} = \dfrac{45}{2.5\,S} \Rightarrow \dfrac{9}{4} = \dfrac{45}{2.5\,S} \Rightarrow = S = \dfrac{45}{2.5} \times \dfrac{4}{9}$

$\therefore$ Speed of x $= 1.5\,S = 1.5 \times \dfrac{45}{25} \times \dfrac{4}{9} = 12 \text{ km}/h$

70. (e) 22.5   15
Length : Breadth = 3 : 2
          ↓
      3x   2x

Height $= 50 \times \dfrac{1}{4} = 12.5$
Perimeter $= 2\,(3x + 2x) = 50$

$\Rightarrow$ $x = 5$
So, area of two any adjacent walls
     $= b \times h + l \times h = h\,(l + b)$
Total cost of painting on wall $= 12.5 \times 25 \times 450$
     $= ₹ 140625$

71. (c) Let speed of current be x.
Then, speed of boat be 5x.
Total speed in downstream
     $= x + 5x = 6x$
Total speed in upstream
     $= 5x - x = 4x = 8$ km

A |~~1.1×6x→~~ | B
   |← 13.2 →|
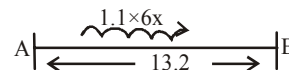
$1.1 \times 6x = 13.2 \Rightarrow \quad x = 2$
Required Distance covered = Time × Speed

$= \dfrac{26}{5} \times 8 = 52 \times 8 = 41.6$ km

72. (a) $\dfrac{\text{Work}}{\text{man} \times \text{days}} = \dfrac{\text{Remaining work}}{\text{men} \times \text{days}}$

$\dfrac{W}{24 \times 13} = \dfrac{W}{20 \times D}$

$20 \times D = 24 \times 13$

$D = \dfrac{24 \times 13}{20} = \dfrac{78}{5} = 15\dfrac{3}{5}$ days

73. (e) Average weight of male student = 65.9 kg
Average weight of female students = 57.0 kg
Average weight of total students = 60.3 kg
Let the total number of student = x.

Then, $\dfrac{65.9 \times 66 + (x - 66) \times 57}{x} = 60.3$

$= 65.9 \times 66 + 57x - 57 \times 66 = 60.3x$
$= (65.9 - 57) \times 66 = 3.3x \quad = 8.9 \times 66 = 3.3x$
$\Rightarrow 178 = x$
$\therefore$ Number of female students $= 178 - 66 = 112$.

74. (b) Let Shashi had sum of ₹ P.

then, $\dfrac{2}{3}P \times \dfrac{12 \times 6}{100} + \dfrac{1}{3}P\left(1 + \dfrac{10}{100}\right)^2 - \dfrac{1}{3}P = 2805$

$= \dfrac{48P}{100} + \dfrac{1}{3}P\left(\dfrac{121}{100}\right) - \dfrac{1}{3}P = 2805$

$= \dfrac{48P}{100} + \dfrac{121P - 100P}{300} = 2805 = \dfrac{144P + 21P}{300} = 2805$

$\Rightarrow \dfrac{165P}{300} = 2805$

$\Rightarrow P = \dfrac{2805 \times 300}{165}$

$\Rightarrow P = 17 \times 300 = ₹ 5100$

75. (c) Let height be xm
then, Radius $= (x + 5)$ m

Curved surface area of cylinder $= 2\pi rh$

$$792 = 2 \times \frac{22}{7} \times (x+5) \times x \implies \frac{396 \times 7}{22} = x^2 + 5x$$

$$126 = x^2 + 5x$$
$$x^2 + 5x - 126 = 0$$
$$x^2 + 14x - 9x - 126 = 0$$
$$x(x+14) - 9(x-14) = 0$$
$$(x-9)(x+14) = 0$$
$$x = 9, x = -14 \text{ m}$$

We have to take height, x = 9m because height can't be negative.
So, leaving the value of $x = -14$
∴ Height = 9m and radius = 9 + 5 = 14m
Hence, volume

$$= \pi^2 rh = \frac{22}{7} \times 14 \times 14 \times 9 = 44 \times 126 = 5544 \text{m}^3$$

76. (b) Let the cost price of the item be 100.

$$100 \xrightarrow{40\%\uparrow} 140 \xrightarrow{20\%\downarrow} 112 \xrightarrow{25\%\downarrow} 84$$
$$\text{CP} \qquad\quad \text{MP} \qquad\qquad\qquad \text{SP}$$

∴ Loss = 16% and Loss = ₹ 448

$$\therefore \text{CP} = \frac{448 \times 100}{16} = ₹ 2800$$

$$\therefore \text{SP} = \frac{2800 \times 84}{100} = ₹ 2352$$

77. (c) Let present age Parul = 7x
and present age of Rohit = 5x
Total age after 5 years from now, 7x + 5x + 10 = 94
⇒ 12x = 84
⇒ x = 7
Therefore, Parul's present age = 7 × 7 = 49 yr
and Rohit's present age = 5 × 7 = 35 yr
Hence, after 14 yr, Rohit's age will be equal to the Parul's present age.

78. (b)

A(Sandal)   B(Sandal)
  614   695
        650
   45   36
   ↓×7   �×7
  35kg   28kg

$$\left[\begin{array}{l}\text{CP of 1 kg Sandal}\\[4pt]\dfrac{767 \times 100}{118} = 650\end{array}\right]$$

So, answer is 28 kg.

79. (b)

39km/h   +   47km/h
A├────┤   ┤B
    78
Ashok
8am ↑
              ┘
     10am(637-78)   Rahul
       =559 km   10am

$$\text{Time taken} = \frac{\text{Total distance to cover}}{\text{Relative velocity}} = \frac{559}{86} = 6.5 \text{ h}$$

∴ Meeting time
= 10 am + 6.5 h. = 4 : 30 pm

80. (a)

A	B	C
28000 × 12 28 × 12	20000 × 8 + 18000 × 2 196	18000 × 6 + 16000 × 2 140
12	7	5

Ratio : 12 : 7 : 5

81. (c) Volume of metal to be casted = $(22/7) \times [(5)^2 - (4)^2] \times 21$
So $(22/7) \times 3^2 \times h = (22/7) \times [(5)^2 - (4)^2] \times 21$
Solve, h = 21

82. (d) Let A replaced by C after x days, so A and B worked for x days, and then B and C for 6 4/11 = 70/11 days.
So
$(1/15 + 1/25) \times x + (1/25 + 1/30) \times (70/11) = 1$
$(8/75) \times x + (7/15) = 1$
Solve, x = 5 days
So, B worked for (5 + 70/11) = 125/11 days
In 125/11 days, B did $(125/11) \times (1/25) = 5/11$ of work

83. (d) He bought the article for
$[(100 - 25)/100] \ [(100 - 10)/100] \quad \times 18000 = 12,150$
Spent 1350 on repairs,
Total CP = 1350 + 12150 = 13,500
SP = 15,000

So profit% = $\dfrac{1500}{13500} \times 100 = 11\dfrac{1}{9}\%$

84. (e) For 2 years, difference in CI and SI = $\dfrac{Pr^2}{100^2}$

For 3 years difference is $\dfrac{Pr^2(r+300)}{100^3}$

$$\frac{\dfrac{Pr^2}{100^2}}{\dfrac{Pr^2(r+300)}{100^3}} = \frac{16}{49}$$

So $\dfrac{100}{r+300} = \dfrac{16}{49}$

Solve, r = $6\dfrac{1}{4}$

85. (b) Total balls = 10

So probability = $\dfrac{{}^2C_1 \times {}^3C_1 \times {}^5C_1}{{}^{10}C_3} = \dfrac{1}{4}$

86. (e) Total number of vehicles produced by P in 2010, 2011 and 2013 = 690
Produced by Q in year 2011, 2012 and 2013 = 510
Difference = 690 – 510 = 180 thousands

87. (b) Average number of vehicles by company
$$Q = \frac{130 + 100 + 160 + 120 + 180 + 210}{6}$$

$$= \frac{900}{6} = 150 \text{ thousands}$$

88. (c) Total number of vehicles in 2010 = 380
Total number of vehicles produced in 2011 = 280

Percentage Decrease $= \frac{100}{380} \times 100$

$= \frac{500}{19} = 26\frac{6}{19}$

89. (a) Total vehicales produced by P in 2012 = 240 thousand
Defective = 15 thousand
Non - defective = 225 thousand
Total vehicles produced by Q in 2013 = 210 thousand
Defectives = 10000
Non - defective = 200 thousand
Ratio = 225 : 20 = 9 : 8

90. (a) Number of vehicles produced by P in the year 2009 = 190
Number of vehicles produced in 2014

$= 190 \times \frac{130}{100} = 247$

(91 – 95)
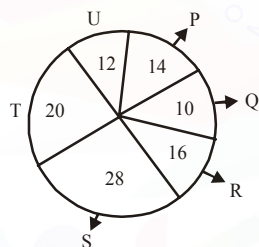
Total Number = 11200

Store	Nokia/ Samsung
P	4 : 3
Q	3 : 1
R	5 : 4
S	7 : 6
T	1 : 4
U	11:10

91. (a) Total % of (P + R + S + T)
Together = 78%
Number of Nokia sold by store

$P = \frac{4}{7} \times 14 \times \frac{11200}{100} = 8 \times \frac{11200}{100} = 896$

Number of Nokia sold by store

$R = \frac{5}{9} \times 16 \times \frac{11200}{100} = \frac{80 \times 112}{9} = 996$

Number of Nokia sold by store

$S = \frac{7}{13} \times \frac{28}{100} \times 11200 = 14 \times 112 = 1688$ approx

Number of Nokia sold by store

$= \frac{1}{5} \times \frac{20}{100} \times 11200 = 448$

Total Nokia phone sold by
(P + R + S + T) = 896+ 996+ 1688 +448 = 4028

$\therefore$ Required average $= \frac{4028}{4} = 1007$

92. (e) Samsung phone sold by store

$p = \frac{3}{7} \times \frac{14}{100} \times 11200 = 672$

Samsung phone sold by store

$Q = \frac{1}{4} \times 100 = \frac{10}{100} \times 11200 = 280$

Total Samsung sold by (P + Q) = 672 + 280 = 952
Total Nokia phone sold by R = 996
Difference = 996 – 952 = 44

Required percentage, $= \frac{44}{952} \times 100 = \frac{44 \times 25}{238} = \frac{22 \times 25}{119}$

$= \frac{550}{119} = 4\frac{24}{119}$

93. (c) We know, 100% = 360°
So, 1 = 3.6°
So, 28% = 28× 3.6 = 100.8°

94. (e) Number of Nokia phones sold by store S = 1688(approx)
Total Number of Samsung phone sold by store T

$= \frac{4}{5} \times \frac{20}{100} \times 11200 = 1792$

Total Number of Samsung phone sold by store U

$= \frac{10}{21} \times \frac{12}{100} \times 11200 = 640$

$\therefore$ Required ratio
= 1688 : (1792 + 640)
= 1688 : 2432 = 211 : 304

95. (c) Total Number of cellular phones sold by stores Q in October

$= \frac{10}{100} \times 11200 = 1120$

Sold in November $= 1120 \times \frac{115}{100} = 1288$

Total Number of cellular phone by T in October

$= \frac{20}{100} \times 11200 = 2240$

Sold in Novermber $= 2240 \times \frac{105}{100} = 2352$

Total Phone sold = 2352 + 1288 = 3640

Sol. (Q. Nos. 96 –100)

Total Export of Six Countries

Year / Country	2011	2012	2013	2014	2015
P	20	40	60	45	90
Q	30	25	15	50	100
R	50	55	70	90	65
S	45	60	20	15	25
T	60	50	55	100	110
U	24	40	60	75	120

96 (a) Given, Import of all countries = ₹ 385 crore
Now, Export of all countries
= 90 + 100 + 65 + 25 + 110 + 120 = 510 = ₹ 510 crore
∴ Profit of all countries together = 510 − 385 = 125
= ₹ 125 crore

97. (d) For country S, Import = $45 \dfrac{2}{1}$ = ₹ 90 crore

For country U, Import = $24 \times \dfrac{1}{4}$ = ₹ 6 crore

thus, the total import of country U and S together
= 90 + 6 = ₹ 96 crore

98. (e) Total export of country Q in 2001= ₹ 50 crore
Total export of country T in 2001 = ₹ 55 crore
∴ Together total export = 50 + 55 = ₹ 105 crore
∴ Total export of country P in 2003

$$105 \times \dfrac{120}{100} = ₹ 126 \text{ crore}$$

Given, import of country P in 2003 = ₹ 92 crore
∴ Profit of country P in year 2003 = Export − Import
= 126 − 92 = ₹ 34 crore

99. (a) Average export of country T= $\dfrac{60 + 50 + 55 + 100 + 110}{5}$

$$= \dfrac{375}{5} = 75$$

Average export of country R = $\dfrac{50 + 55 + 70 + 90 + 65}{5}$

$$= \dfrac{330}{5} = 66$$

∴ Required percentage= $\dfrac{9}{66} \times 100 = \dfrac{150}{11} = 13\dfrac{7}{11}$

100. (c)

1999	2001
40	45
25	50
55	90
60	15
50	100
40	75
270	375

∴ Difference = 375 − 270 = 105

∴ Percentage Growth = $\dfrac{105}{\text{Total export in 1999}} \times 100$

$$= \dfrac{105}{270} \times 100 = \dfrac{350}{9} = 38.89$$

101. (a)   102. (e)

103. (a) 'Apposite' and 'Appropriate' both have a meaning 'Suitable', hence they are synonyms to each other.

104. (d) Passage clearly suggests that indian market is a very big domestic market and therefore there was a demand for Indian goods from domestic consumers even when it had declined internationally. That's why author said that India's economy managed to sail through the economic downturn.

105. (d) The central theme of the passage is Economic Growth - A Result of Natural Forces rather than the Government.

106. (b) The author attributes the improvements of the economic condition of the country to the economy for it is surviving on its own either throgh consumption or saving.

107. (b) 'Eschews' means 'Nothing to do with'. 'Avoid also means the same. Hence, both of the words are synonyms.

108. (a) 'Deleterious' means 'Harmful' or ' Negative'. So its antonym will be 'Positive'.

109. (d) 'Wary of' has been used in the passage in the context of 'being cautious about'. So, option (d) is suitable choice.

110. (b) Statement (b) is not true. There is nothing like social contracts in India that one can reap the benefits provided under the scheme.

111. (c) 'Amount to' should be replaced by ' Account for'. It gives the sense of 'justifying' which is suitable in the context of the research.

112. (a)   113. (d)   114. (a)
115. (e)   116. (a)

117. (b) 'Resolving' should be 'resolve' as per the rules of infinitive.

118. (d) Using 'loans' is improper. When government seeks loan then it generally owes to World Bank or some reputed financial institutions as bailout which is singular. So, "loans" should be replaced by 'loan'.

119. (b) The grammatical construction should be like 'growing anxious increasingly' instead of 'growing increasingly anxious'.

120. (c)

121. (a) 'Although' is a superfluous usage here so, remove it to make the sentence correct.

122. (a) Modals take the plural form of verb or first form of verb. So 'doubles' should be replaced by' double' to make the sentence correct.

123. (c) Last part of the sentence says that the event takes place every year. So, it becomes a general truth. For a general truth, we should use simple present. Hence, 'is created' should be replaced by 'creates'.

124. (b) The event is of past, so Past Tense is to be used with auxiliary 'had', we use 'V$_3$'. So, 'stop' should be replaced by 'stopped'

125. (e)   126. (d)   127. (b)   128. (a)

129. (d)   130. (b)

131. (a) For the second blank space, standard and timing are not the suitable words to use. Only checks, system are suitable usages but with system the first word is suddenly which is not in agreement with the first blank. So, routine and checks is the correct pair to use.

132. (d)

133. (b) Obviously, the population 'want' electricity on a regular basis. For the next blank, the generators would agree the most to 'running'.

134. (c)

135. (c) Second blank must be completed by 'amending' as it is being followed by 'laws on taxes'. For a 'Law improvement' we use 'amending'.

136. (a) Only suitable starter is 'since the landowners' which fits with the context of the sentence well.

137. (a) Suitable starter is 'though the mineral rich' which fits the context of the sentance well.

138. (e)

139. (a) Suitable starter is 'In order to discuss' which fits the context of the sentence well.

140. (e)

141. (c) It. Option (a) and (b) are in Participle form so not appropriate. 'Silent' is a noun. 'Invent' doesn't match-up with the context. So, 'power is suitable.

142. (d) Sentence clearly suggests that it mentions about some research or finding. Hence, most appropriate word is 'explore'.

143. (d)

144. (e)

145. (e) Suitable words are 'convenient' or 'advantageous'. But 'advantage' would not match-up the context. So, 'convenient' is the only suitable option to be used here.

146. (d) 'Acquired' is the suitable option which means 'gained' or 'obtained and it suits the sense here.

147. (b)

148. (d) Here , 'Consume' or 'burn' is the best usage with fuel. As, 'consume' is not in the options so 'burned' is the most suitable usage here.

149. (c) On reading the sentence, we get the idea that the biofuel and its production is not an easy affair. There are certain limitations with it.Hence, use of'drawbacks' is the best usage.

150. (e)   151. (b)   152. (e)   153. (d)

154. (b) Cross life cycle of a system is an activity that overlaps many or all phases of the methodology: fact–finding, documentation and presentation, feasibility analysis and process and project, management.

155. (a)

156. (e) Globalisation is the integration and independence of economic, social, cultural, and ecological facets of life, enabled by rapid advances in information technologies.

157. (a) Backward recovery applies the journal file to the active database, moving backward from the end of the file. Backward recovery uses 'before- image' journaling.

158. (a)

159. (d) Data definition Language (DDL) is used to define the database structure or schema. Some of them are CREATE, DROP, ALTER etc.

160. (a) Ping sweep is a basic network scanning technique used to determine which of a rangs of IP addresses map to live hosts. A ping sweep consists of ICMP ECHO request sent to multiple hosts, If a given address is live, it will return an ICMP ECHO reply.

161. (c) When a user interacts with web App, the interaction occurs throught one or more interface mechanisms such as link, Forms Client side scripting, Dynamic HTML, Pop-up windows, streaming content and cookies.

162. (a) Locking is a process used to 'lock' some data in a database to prevent concurrent access to update the data. Locking may lead to deadlock. Deadlock means users are waiting for other users to free the resource.

163. (e) Internet Protocol Security (I Psec) is a framework (or standard) for a set of protocols for security that is inclined at the network or packet processing layer of network communications, as opposed to the application layer.

164. (b) Optical fibre is a communications medium where data is transformed into pulses of light emitted by a laser device about the six of a pinhead and can be transmitted at blinding speeds.

165. (e)

166. (e) The full form of DLCI Data Link Connection identifier. A number of a private or switched virtual circuit in a frame relay network that tells the Frame Relay how to route the data. The DLCI field identifies which logical circuit the data travels over.

167. (b)

168. (b) In a procedural program, you typically have data stored in a collection of variables and/or structures, coupled with a set of functions that performs operations on the data.

169. (b) A DBMS performs several important functions that guarantee the integrity and consistency of the data in the database. Data storage management, security management, data integrity managements except data reports are the functions and services provided by a DBMS.

170. (e)

171. (d) Social engineering technique used to deceive users, and exploits the poor usability of current web security technologies. It is the attempt to acquire sensitive information such as usernames, passwords, and credit card details.

172. (e)   173. (c)   174. (b)

175. (a) Two important technologies for development of Semantic web are
    1. **XML** enables site builders to make their information semantically.
    2. **Resource Description Framework** (RDF) offers a framework for the construction of logical language for collaboration in the Semantic web.

176. (e) Testable Web App security elements are Firewalls, Authentication, Encryption, and Authorisation.

177. (b) 0.0.0.255 matches all the packets that have the same first three octets. This is useful when you want to match a subnet in which then subnet part comprises of the first three octetes.

178. (e) Common Gatway Interface (CGI) is a specification for transferring information between a www server and a CGI program. A CGI program is any program designed to accept and return data that conforms to the CGI specification. The program could be written in any programming language including, C , Perl, JAVA or Visual Basic.

179. (e) COUNT, SUM, AVG, MAX and MIN are the built - in functions provided by SQL. DIV and MULT are not available in SQL.

180. (d) An IP address is an identifier for a computer on a network. Thus, every computer on the internet have a unique IP address.

181. (b) Domin names are alphabetic, they're easy to remember. The internet, however, is based on IP addresses. Every time we use a domain name, a DNS must translate or map the name into/to the corresponding IP address.

182. (a) All of the given terms (IOE, DOE, and ATA) describe Parallel ATA (Parallel Advanced Technology Attachment) devices except SCSI.

183. (d) Extensible Markup Language (XML) was designed to describe data, not to display data. XML tages are not predefined. XML allows the author to define his/her own tags and his/her own document structure.

184. (c) A directed trees is an acyclic digraph, which has only one node with indegree 0, and others nodes have indegree 1.

185. (b)

186. (c) A search engine is a web – based tool (or web facility) that enables users to find sites with the information and/or services that are desired on the World Wide Web (WWW).

187. (d) System flowchart is the graphical or symbolic representation of the flow of data or program elements in the system and illustrates the logic of a new computer software logic diagram.

188. (a) Frame relay is a protocol independent fast packet switching technology, so its payload can carry a varity of higher – layer LAN protocols, such as the internet Protocol (IP) because the network does not concern itself with error correction routines and flow control, overhead in the Frame reley network is low.

189. (b)   190. (a)   191. (e)

192. (d)   193. (d)

194. (a) Streaming or Streaming Media is the process whereby media files (such as video or audio content) sent in compressed form over the internet and played immediately, rather then being saved to the hard drive. With streaming media, a user does not have to wait to download a file to play it because the media is sent in a continuous stream of data it can play as it arrives.

195. (b) In transaction Processing Systems (TPS), Action documents direct that a specific action take place. Turnaround documents initiate action and are returned after its completion to the requesting agency. They, therefore, also serve as input documents for another transaction.

196. (e) Bind variable are placeholders for literal values or an alternative way to sent data to the databased. Instead of putting the values directly into the SQL statement, you just use a placeholder like ?, : name or @name.

197. (c) Dequeue (double - ended queues) are the refined queue in which elements can be aadded or removed at either ens but not in the middle. There are two variations of a dequeue – Input restricted dequeue and Output restricted dequeue.

198. (d) Malware is the short from for Malicious software. It is a software used to disrupt computer operation, gather sensitive information, or gain access to private computer systems.

199. (b) A drive- by download is a program (i.e. virus, spyware, malware) that is automatically downloaded to your computer without your consent or even your knowledge. A drive - by download can be initiated by simply visiting a web site or viewing an HTML e-mail message.

200. (d) CMM stands for Capability Maturity Modal. It is a framework to assess the maturity level of an organisation's information system development and management processes and products. It consist of 5 levels:
    The standardised system development process is continously monitored and improved based on measures and data analysis established in level 4.

SBI BANK PO PRELIMINARY EXAM

Held on 10 July, 2016

Reasoning Ability

DIRECTION (Qs. 1-5): *Study the following information carefully to answer the given questions.*

Eight people - P, Q, R, S, T, U, V and W are sitting in a straight line facing North. Each of them went to tour in different months, viz January, February, March, April, May, June, July and August but not necessarily in the same order.

V sits third to the right of the person who went to tour in May. V went to tour after P. The person who went to tour in August sits second to the right of V. R went to tour before July. Neither P nor T went to tour in either May or August. Neither P nor T is an immediate neighbour of V. W sits third to the right of the person who went to tour in January. Neither P nor T went to tour in January. W went to tour in one of the months mentioned above but not in August. Only two people sit between T and the person who went to tour in July. The person who went to tour in February sits on the immediate left of S. Only one person sits between T and Q. T went to tour after April. P and T are immediate neighbours of each other.

1. In which of the following months, W went to tour?
   (a) April
   (b) June
   (c) July
   (d) February
   (e) March
2. Who among the following sits exactly between T and Q?
   (a) The person who went to tour in May
   (b) The person who went to tour in January
   (c) S
   (d) P
   (e) The person whose joining date is in August
3. Which of the following is true regarding T?
   (a) Only two people sit to the left of T.
   (b) S is sitting second to the right of the person who went to tour in July
   (c) T and Q are immediate neighbours of S
   (d) S went to tour in May
   (e) None of the Above
4. How many people sit between R and the person who went to tour in April?
   (a) None
   (b) One
   (c) Two
   (d) Three
   (e) Four
5. Who among the following are sitting at the extreme ends of the line?
   (a) P and S
   (b) The person who went to tour in May and T
   (c) R and V
   (d) The persons who went tour in March and June
   (e) None of these

DIRECTION (Qs. 6-10): *Study the following information carefully to answer the given questions.*

Eight friends - P, Q, R, S, T, U, V and W are sitting around a circular table All of them are facing the centre. Each of them likes different subjects i.e. Economics, Statistics, English, History, Geography, Biology, Chemistry and Physics but not necessarily in the same order.

S likes Physics. R and T are immediate neighbours of each other. The one who likes Geography sits to the immediate left of Q. The one who likes biology sits second to the right of the one likes Statistics. The one who likes Chemistry is an immediate neighbour of the one who likes History. W is second to the right of U. Q is sitting second to the left of U. Neither R nor T likes History. The one who likes Physics is an immediate neighbour of U. R is second to the right of the one who likes Economics. There are only three people sits between the one who likes Physics and P. Only one person sits between the one who likes History and P. The one who likes Statistics is to the immediate right of the one who likes History.

6. Who among the following likes English?
   (a) Q
   (b) P
   (c) R
   (d) S
   (e) None of these
7. In the arrangement, how many persons are there between U and T?
   (a) Five
   (b) Two
   (c) Three
   (d) Four
   (e) None of these
8. Which of the following statement is true about V?
   (a) V is an immediate neighbour of P
   (b) The immediate neighbor of V are R and T
   (c) V is third to the right of the person who likes Biology
   (d) None of the given statements is true
   (e) V sits opposite to R, who likes Geography
9. Who among the following sits third to the right of S?
   (a) The person who likes Statistics
   (b) The person who likes Economics
   (c) The person who likes Physics
   (d) Can't be determined
   (e) None of these
10. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?
    (a) S, R
    (b) R, P
    (c) Q, R
    (d) S, V
    (e) V, P

DIRECTION (Qs.11-15) : *Study the following information carefully to answer the given questions*

Seven Members Sania, Kamal, Pankaj, Anand, Arjun, Shewag and Sreejesh represents seven different states Madhya Pradesh, Uttar Pradesh, Bihar, Kerala, Haryana, Odisha and Maharashtra in seven different games Hockey, Chess, Cricket, Badminton, Table Tennis, Golf and Billiards. The order of persons, states and games is not nescessarily in the same order.

- Anand represents Kerala in chess. Arjun represents golf team but not from Maharashtra or Uttar Pradesh.
- Sania represents Madhya Pradesh for either badminton or table tennis. Pankaj represents Odisha but not for cricket or Table tennis.
- The one who represents Bihar represent in Table tennis. The one who represents Hockey represents Uttar Pradesh.
- Shewag represents Cricket and from Neither Bihar nor Uttar Pradesh.Sreejesh does not represent Bihar.

11. Who among the following represent Bihar ?
    (a) Kamal   (b) Anand
    (c) Sreejesh   (d) Sania
    (e) None of these
12. Which of the following combination is correct ?
    (a) Pankaj - Kerala   (b) Kamal - Cricket
    (c) Shewag - Maharashtra   (d) Anand - Golf
    (e) None of these
13. Who represents Badminton ?
    (a) Arjun   (b) Kamal
    (c) Sreejesh   (d) Sania
    (e) None of these
14. Four among the following form a group in a certain way.Which of the following does not belong to Group ?
    (a) Sania-Table Tennis - Bihar
    (b) Anand -Kerala - Billiards
    (c) Arjun -Haryana - Golf
    (d) Pankaj-Uttar Pradesh - Hockey
    (e) Sreejesh - Chess - Madhya Pradesh
15. Who among the following represents Uttar Pradesh ?
    (a) Kamal   (b) Arjun
    (c) Pankaj   (d) Sreejesh
    (e) None of these

DIRECTIONS (Qs.16-17): *Each of the following questions is based on the following information:*

1. Six flats on a floor in two rows facing North and South are allotted to P, Q, R, S, T and U.
2. Q gets a North facing flat and is not next to S.
3. S and U get diagonally opposite flats.
4. R next to U, gets a south facing flat and T gets North facing flat.
16. If the flats of P and T are interchanged then whose flat will be next to that of U?
    (a) P   (b) Q
    (c) R   (d) T
    (e) None of the above
17. Which of the following combination get south facing flats?
    (a) QTS   (b) UPT
    (c) URP   (d) Data is inadequate
    (e) UQS

DIRECTION (Q (18-22): *Read the following information carefully and answer the questions that follows* **:**

P@Q - P is neither greater than nor equal to Q
P%Q - P is neither smaller than nor equal to Q
P#Q - P is not greater than Q
P$Q - P is not smaller than Q
P*Q- P is neither smaller than nor greater than Q

18. **Statements:** - A@B, B%C, C*D, D$E
    Conclusions: - I. B%E II. A%E
    (a) Only conclusion I follows
    (b) Only conclusion II follows
    (c) Either conclusion I or II follows
    (d) Neither conclusion I nor II follow
    (e) Both conclusion one and two follows
19. **Statements:** - A%B, B*C, C#D, D*E
    Conclusions: - I. A%C   II. E$B
    (a) Only conclusion I follows
    (b) Only conclusion II follows
    (c) Either conclusion I or two follows
    (d) Neither conclusion one nor second follow
    (e) Both conclusion one and two follows
20. **Statements:** - A*B, B$C, C#D, D@E
    Conclusions: - I. E*A   II. C%A
    (a) Only conclusion I follows
    (b) Only conclusion II follows
    (c) Either conclusion I or IIfollows
    (d) Neither conclusion I nor II follow
    (e) Both conclusion I and II follows
21. **Statements:** - AB, BC, C*D, D@E
    Conclusions: - I. A$E   II. E%C
    (a) Only conclusion I follows
    (b) Only conclusion II follows
    (c) Either conclusion I or II follows
    (d) Neither conclusion I nor II follow
    (e) Both conclusion I and II follows
22. **Statements:** - A%E, E@C, C%B, B*D
    Conclusions: - I. C%D   II. B@A
    (a) Only conclusion I follows
    (b) Only conclusion II follows
    (c) Either conclusion I or two follows
    (d) Neither conclusion I nor II follow
    (e) Both conclusion I and II follows

DIRECTIONS (Qs. 23-25): *Read the following information carefully to answer the following questions*

'P # Q' means 'P is the daughter of Q'
'P © Q' means 'Q is the brother of P'
'P = Q' means 'Q is the sister of P'
'P & Q' means 'P is the son of Q'
'P * Q' means 'P is the father of Q'
'P @ Q' means 'P is the mother of Q'

23. What does the expression 'P @ R = S © T & V'?
    (a) V is the husband of P
    (b) R is the son of V
    (c) R is the daughter of V
    (d) V is the wife of P
    (e) None of these

24. Which of the following indicates that 'C is the paternal uncle of D'?
    (a) C & V # N @ L © D
    (b) C & V & L @ N © D
    (c) D & L & N @ V © C
    (d) D & N # V @ L © C
    (e) None of these

25. Which of the following can be the correct conclusion drawn from the expression
    'L = M # N © P * Q'?
    (a) Q is the grandson of M
    (b) L is the uncle of N
    (c) N is the uncle of Q
    (d) Q is the niece of N
    (e) None of these

DIRECTIONS (Qs. 26-30) *Study the following information carefully to answer the given questions.*

Seven persons - A, B, C, D, E, F and G live on seven different floors of a building but not necessarily in same order. Lowermost floor of building is numbered 1, one above that is numbered 2 and so on till top most floor is numbered 7. Each one of them also own different brands of Car, namely Fiat, Hyundai, Honda, Skoda, Toyoto, Ford and Chevrolet.(but not necessarily in same order). All of them went to tour on seven different days starting from Monday to Sunday(of the same week)

• A lives an odd numbered floor but not on floor numbered Three. Only two persons live between D and the one who owns Toyoto. The one who owns Honda lives immediately above C. The one who owns Toyoto went to tour on one of the days before Thursday.

• The one who owns Hyundai lives on odd numbered floors above D. B lives on the floors above E. Only three persons live between C and the one who owns Hyundai. The person who went to tour on Friday owns Fiat Car.

• The one who owns Fiat lives immediately above the one who owns Chevrolet. G lives on an odd numbered floor. E does not own Honda. D went to tour on Sunday.

• Only one person lives between B and E. The one who owns Toyoto lives immediately above A. Neither C nor A owns Skoda. The one who went to tour on Wednesday immediately after the one who owns Hyundai.

• The one who owns Honda went to tour immediately before the one who lives in floor no 3. There are two persons live between the floor no 4 and the person who went to tour on Wednesday. The one who went to tour on Wednesday is not C.

26. Which of the following car does A own?
    (a) Skoda   (b) Toyoto
    (c) Fiat   (d) Hyundai
    (e) Ford

27. Which of the following combinations is True with respect to the given arrangement?
    (a) Ford - C   (b) Hyundai - F
    (c) Chevrolet - G (d) Fiat - D
    (e) Ford - B

28. If all the persons are made to sit in alphabetical order from top to bottom, positions of how many persons will remain unchanged?
    (a) Four   (b) None
    (c) Two   (d) One
    (e) Three

29. Which of the following statements is True with respect to the given arrangement?
    (a) The one who owns Honda went to tour on the day immediately after E.
    (b) F likes Fiat
    (c) None of the given options is true.
    (d) Only four persons live between D and G
    (e) G lives immediately below E.

30. Who among the following lives on the floor numbered 2?
    (a) B
    (b) The one who owns Fiat
    (c) The one who owns Hyundai
    (d) D
    (e) F

DIRECTION (Qs. 31-35): *Study the following information carefully to answer the given questions.*

Ten persons from different cities viz. Delhi, Jaipur, Patna, Indore, Mumbai, Chennai, Hyderabad, Bengaluru, Ranchi and Surat are sitting in two parallel rows containing five people each, in such a way that there is an equal distance between adjacent persons. In row 1- A, B, C, D and E are seated and all of them are facing south. In row-2 P, Q, R, S and T are seated and all of them are facing north. Therefore in the given seating arrangement, each
member seated in a row faces another member of the other row.(All the information given above does not necessarily represent the order of seating in the final arrangement.)

• P faces one of the immediate neighbours of the person from Jaipur. P does not face A. The person from Delhi sits second to the right of the person from Bengaluru.

• D faces one of the immediate neighbours of the person from Patna. S is not from Patna. D is not from Mumbai. R sits second to the left of the persons from Surat. A sits third to the right of person from Chennai.

• Only One person sits between the person from Ranchi and Q. The person from Indore sits to the immediate right of Q. C sits to the immediate left of the person who faces Q. Only two people sit between B and E.

• The person from Mumbai sits second to the right of the one who faces S. S does not sit at an extreme end of the line. One of the immediate neighbours of the person from Mumbai faces Ranchi.

31. Who amongst the following faces the person from Hyderabad?
    (a) The person from Delhi
    (b) D
    (c) The person from Chennai
    (d) The person from Ranchi
    (e) B or E

32. T is from which of the following cities?
    (a) Patna   (b) Indore
    (c) Hyderabad   (d) Ranchi
    (e) Mumbai

33. Which of the following is true regarding C?
    (a) C sits an extreme end of the line
    (b) None of the given options is true
    (c) C is from Bengaluru
    (d) The person from Indore faces C
    (e) The person from Hyderabad is an immediate neighbour of C

34. R is related to Indore in the same way as C is related to Jaipur based on the given arrangement, To who amongst the following is T related to the following same pattern?
    (a) Delhi　　　　　　　　(b) Surat
    (c) Patna　　　　　　　　(d) Hyderabad
    (e) Ranchi

35. Who amongst the following sit at extreme end of the row?
    (a) The person from Delhi and R
    (b) The persons from Bengaluru and A
    (c) A and the person from Patna
    (d) The persons from Chennai and Patna
    (e) A, E

Quantitiative Aptitude

36. A certain sum of money at certain rate of interest becomes ₹ 3420 after 2 years and at same rate after two and a half years becomes ₹ 3525. Find the rate percent per annum.
    (a) 8.5%　　　　　　　　(b) 8%
    (c) 7%　　　　　　　　　(d) 10%
    (e) 11%

37. A sum of money becomes ₹ 35,280 after 2 years and ₹ 37,044 after 3 years when lent on compound interest. Find the principal amount.
    (a) ₹ 32,000　　　　　　(b) ₹ 28,000
    (c) ₹ 31,500　　　　　　(d) ₹32,500
    (e) None of these

38. A person sell two horses for rupees 480 each. On the first horse he gains 25 percent and on the second horse he losses 25 percent. Find the percent gain or loss in the transaction.
    (a) loss 6.75%　　　　　(b) gain 6.75%
    (c) loss 6.25%　　　　　(d) gain 6.25%
    (e) None of these

39. Ashwin has to travel from one point to another point in a certain time. Travelling at a speed of 6kmph he reaches 40m late and travelling at a speed of 8kmph he reaches 12 m earlier. What is the distance between this two points?
    (a) 27km　　　　　　　　(b) 18km
    (c) 5km　　　　　　　　　(d) 21km
    (e) None of these

40. Two trains A and B start from two places P and Q towards Q and P respectively. After passing each other they take 4 hours 48 minutes and 3 hours and 20 minutes to reach Q and P respectively. If the train from P is moving at 45 km/h then find the speed of other train.
    (a) 69 km/h　　　　　　　(b) 74 km/h
    (c) 54 km/h　　　　　　　(d) 64 km/h
    (e) 72 Km/h

41. Ronit's age is 10 years more than Rohit's age. Also Ronit was twice old as Rohit 15 years ago. What will be the age of Ronit 6 years after?

    (a) 41　　　　　　　　　　(b) 40
    (c) 35　　　　　　　　　　(d) 45
    (e) 38

42. The average age of the group having 3 members is 84. One more person joins the group and now the average becomes 80. Now a fifth person comes whose age is 3 years more than that of fourth person replaces the first person. After this the average age of the group becomes 79. What is the weight of the first person?
    (a) 75　　　　　　　　　　(b) 65
    (c) 68　　　　　　　　　　(d) 82
    (e) 85

43. A, B and C can alone complete a work in 10, 12 and 15 days respectively. A and C started the work and after working for 4 days, A left and B joined. In how many days the total work was completed?

    (a) $6\dfrac{5}{9}$ days　　　　(b) $6\dfrac{2}{9}$ days

    (c) 6 days　　　　　　　(d) $5\dfrac{4}{9}$ days

    (e) $7\dfrac{2}{9}$ days

44. There are 4 filling pipes and 3 emptying pipes capable of filling and emptying in 12 minutes and 15 minutes respectively. If all the pipes are opened together and as a result they fill 10 litres of water per minute. Find the capacity of the tank.
    (a) 65 ltr　　　　　　　　(b) 70 ltr
    (c) 75 ltr　　　　　　　　(d) 80 ltr
    (e) None of these

45. Divide ₹ 2340 into three parts, such that first part be double that of second part and second part be 1/3 of the third part. Find the Third part amount?
    (a) ₹ 780　　　　　　　　(b) ₹ 1170
    (c) ₹ 750　　　　　　　　(d) ₹ 390
    (e) None of these

DIRECTION (Q.s 46-50) : *Each of the following number series, a wrong number is given. Find out that number.*

46. 3 5 13 43 178 891 5353
    (a) 43　　　　　　　　　　(b) 178
    (c) 891　　　　　　　　　(d) 5353
    (e) None of these

47. 90720 10080 1440 240 48 10 4
    (a) 240　　　　　　　　　(b) 48
    (c) 1440　　　　　　　　　(d) 10
    (e) None of these

48. 3 5 10 12 17 23 24
    (a) 5　　　　　　　　　　(b) 17
    (c) 24　　　　　　　　　　(d) 23
    (e) None of these

49. 1, 11, 38, 78, 175, 301
    (a) 11　　　　　　　　　　(b) 78
    (c) 175　　　　　　　　　(d) 301
    (e) None of these

50   7, 39, 85, 179, 211, 369, 879
    (a)   369   (b)   211
    (c)   179   (d)   879
    (e)   None of these

DIRECTIONS (Q.s 51-55) : *In the following questions two equations numbered I and II are given. You have to solve both the equations and give answer*

51   $(x+2)(x+1)=(x-2)(x-3)$
    $(y+3)(y+2)=(y-1)(y-2)$
    (a) $x>y$ (b) $x<y$
    (c) $x\geq y$ (d) $x\leq y$
    (e)   x = y or relation cannot be established

52. $12x^2+29x+14=0$
    $y^2+9y+18=0$
    (a) $x>y$ (b) $x<y$
    (c) $x\geq y$ (d) $x\leq y$
    (e)   x = y or relation cannot be established

53. $5x^2-18x+9=0$
    $3y^2+5y-2=0$
    (a) $x>y$ (b) $x<y$
    (c) $x\geq y$ (d) $x\leq y$
    (e)   x = y or relation cannot be established

54. $17^2+144\div18=x$
    $26^2-18\times21=y$
    (a) $x>y$ (b) $x<y$
    (c) $x\geq y$ (d) $x\geq y$
    (e)   x = y or relation cannot be established

55. $30x^2+11x+1=0$
    $42y^2+13y+1=0$
    (a) $x>y$ (b) $x<y$
    (c) $x\geq y$ (d) $x\leq y$
    (e)   x = y or relation cannot be established

DIRECTION (Q.s 56-60) : *What approximate value should come in place of the question mark (?) in the following questions? (You are not expected to calculate the exact value.)*

56. $16.003\times29.998-40.002\times9.009=?$
    (a)   110   (b)   118
    (c)   120   (d)   124
    (e)   130

57. $420.009\div13.998+11.997-17.0023=?$
    (a)   23   (b)   24
    (c)   25   (d)   26
    (e)   27

58.   41% of 801 – 150.17 = ? – 57% of 910
    (a)   693   (b)   694
    (c)   697   (d)   707
    (e)   None of these

59. $1235.092+4532.998-?+1279.991=4000.001$
    (a)   2048   (b)   3048
    (c)   3648   (d)   4048
    (e)   None of these

60. $(1/2)\times(1/17.01)\times289\times?=4.001\times2.01$
    (a)   16/17   (b)   14/17
    (c)   15/17   (d)   13/17
    (e)   17/16

DIRECTIONS (Qs. 61-65): *These questions are based on the following bar graph and line graph. The following bar graph gives the total population of five villages and the number of males in each of the five villages.*
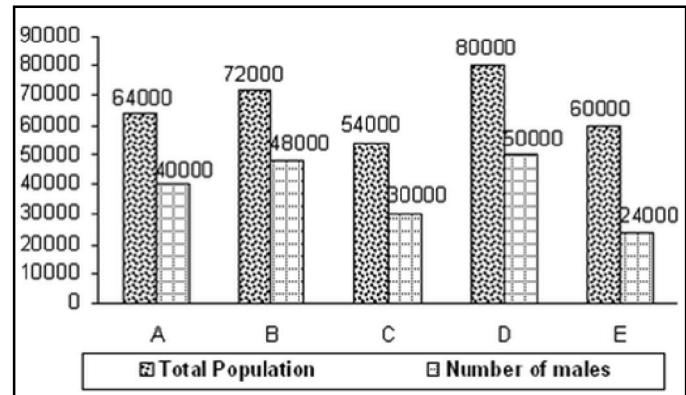
The following line graph gives the percentage of literates amount males, foreach of the five villages.
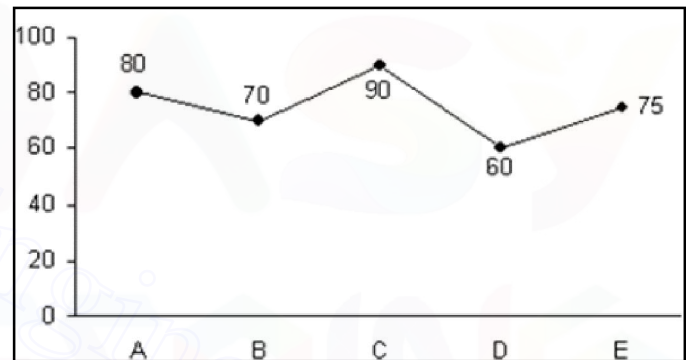
61.   In which village is the number of females as a percentage of the total population, the lowest?
    (a)   A   (b)   B
    (c)   C   (d)   D
    (e)   E

62.   What is the ratio of the number of illiterate males in B to that in C?
    (a)   24 : 5   (b)   7 : 16
    (c)   9 : 13   (d)   11 : 19
    (e)   None of these

63.   What is the average number of literate males per village?
    (a)   32240   (b)   24420
    (c)   28120   (d)   29430
    (e)   None of these

64.   In how many villages is the number of illiterate males, as a percentage of the total population, more than 21%?
    (a)   1   (b)   2
    (c)   3   (d)   4
    (e)   None of these

65.   In which village is the number of literate males, as a percentage of the total population, the lowest?
    (a)   A   (b)   D
    (c)   B   (d)   C
    (e)   E

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

Total number of students = 90,000

% of Students in 10th in 6 different states
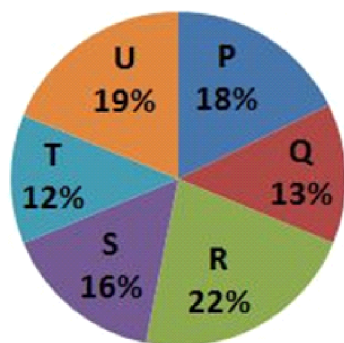
Number of Boys student in each district out of 90,000
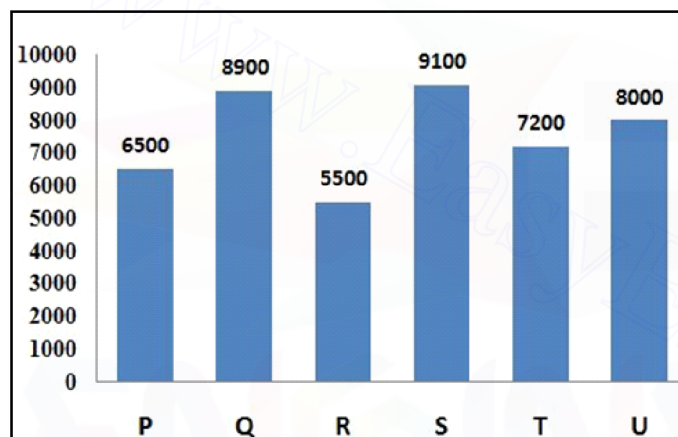
66. The no of girls students in District T is what % of the total no students in District Q ?
    (a) 47% (b) 31%
    (c) 37% (d) 40%
    (e) 43%

67. What is the average number of boys students in all the districts together ?
    (a) 7533 (b) 7355
    (c) 7550 (d) 7300
    (e) 7800

68. What is the difference between the number of girls students in District P and the total number of students in District R ?
    (a) 11000 (b) 9700
    (c) 10000 (d) 10100
    (e) 10200

69. What is the ratio of the no of boys in District U to the total no of girls in District S ?
    (a) 43:76 (b) 50:75
    (c) 53:80 (d) 80:53
    (e) 54:82

70 What is the total no of students in District P,R and T ?
    (a) 46000 (b) 46800
    (c) 48600 (d) 45000
    (e) 45500

English Language

DIRECTIONS (Qs. 71-80) : *Read the following passage carefully and answer the questions given below it. Certain words/phrases have been printed in bold to help you locate them while answering some of the questions.*

Renewable Energy Technologies (RETs) have long been **recognised** for their potential as environment friendly, versatile and sustainable energy alternatives for rural areas of India. However, despite efforts by the Ministry of Non-conventional Energy Sources (MNES) and the India Renewable Energy Development Agency (IREDA), RETs have not yet succeeded as a major alternative source of energy in rural India. The programmes of MNES and IREDA designed to support small-scale distributed systems have relied on heavily subsidized credit, technology training and consumer awareness activities to stimulate the market for end-user finance for renewable energy systems for domestic use and a tiered set of capital and interest rate sub-sidies for water pumping in the agriculture sector. While end-users in some rural areas now have access to solar-powered lanterns or lights and biogas systems for their home, and agricultural operations are taking advantage of remarkable capital subsidies for solar energy to use for water pumping, the use of heavy capital and interest rate subsidies, and the focus on domestic use rather than on matching renewable energy technology applications with income enhancement opportunities have tied the success of these programmes to government budgets and political cycles limiting both the breadth and depth of development and penetration of projects that harness renewable energy resources.

In order of fully understand the barriers to the development of renewable energy enterprises/projects in rural India, we must review a few of the key' characteristics of investments in re-

newable energy projects.

First, investments in renewable energy projects are relatively information and capital-intensive. The greater information intensity arises primarily from the need for more up front information regarding the energy resource compared to conventional power projects. Renewable energy resource assessments, in most cases, need to be site-specific and preferably with data for a significant period of time. Renewable energy technologies are also more capital-intensive than conventional hydrocar-bon ones because of the large upfront investment cost in generation equipment needed to utilize a 'free' or low-cost energy source. Due to the capital intensity, the financial **viability** of such investments and projects is often more dependent on longer-term financing structures available at the **outset** of the project.

Second, individual renewable energy investments are generally smaller than those made in conventional power generation projects due to constraints on local resource availability. Local resource availability is in turn limited by the low energy density of renewable energy resources. As extensive time and resources are necessary to catalogue the

site specific resource availability before financing can be considered, the technical and managerial know how requirements and associated costs that occur prior to the project often represent a much larger percentage of project costs than in the case of conventional power projects.

Third, entrepreneurs developing small-scale renew able energy projects face the same business and financial risks associated with any enterprise. The viability of any enterprise depends on its ability to build a business based on solid concepts and competencies in sound contexts that mitigate those risks.

Considering the aforementioned characteristics, the key barriers to development of small-scale renewable energy projects are fourfold. First, rural entrepreneurs do not usually have the knowledge and expertise necessary to write business plans for projects that link renewable energy technologies with productive use of applications, to assess the rewards and risks of the project and estimate the costs to mitigate the associated risks. All of these are necessary inputs before a project is presented to a financier for investment. In addition, the negotiations with financiers may be complex, involving concepts and approaches that are not familiar to the entrepreneur. Second, the paperwork and soft costs associated with identifying and obtaining access tofinancing for small and medium-scale projects is high relative to the financing needs.

Without critical first-stage financing, most of the entrepreneurs interested in developing renewable energy projects will not be able to take the time away from normal business operations to implement renewable energy projects. Third, many of the renewable energy technologies are still relatively new to the market, so the commercial chains, networks, marketing and financial links, and other institutional structures that service traditional energy technologies are not in place to assist the entrepreneureven if she/he has the skills, know-how and capital. Fourth, given the 'newness', there is a limited availability of investment capital to finance the high upfront costs associated with the initial stages of developing a renewable energy project.

71. Which of the following is/are the reason/a that the programmes implemented by IREDA and MNES have not yet succeeded in making RETs the major alternative source of energy?
    1. Focus on employment generation.
    2. Emphasis on industrial use of renewable energy.
    3. Interest rate subsidies linking these to Government budgets and political cycles.
    (a) Only 2 (b) Only 2 and 3
    (c) Only 3 (d) Only 1 and 2
    (e) All 1, 2 and 3

72. Which of the following is possibly the most appropriate title for the passage?
    (a) Programmes to Implement Renewable Energy Projects in Rural Areas.
    (b) Rural Renewable Energy Projects - The Barrie's
    (c) The Benefits of Alternative Sources of Energy
    (d) The Government and Renewable Energy Projects
    (e) Taking Forward Renewable Energy Projects in India

73. Which of the following is/are the characteristic/a of investment in RETs?
    1. There are a number of investors willing to invest readily invest in these projects.
    2. These demand more investment of capital over the conventional energy projects.
    3. These involve lesser risk as compared to the conventional energy projects.
    (a) Only 1 and 3 (b) Only 1 and 2
    (c) Only 2 (d) Only 2 and 3
    (e) All 1, 2 and 3

74. Why are renewable energy projects termed information-intensive?
    (a) The information on resources required by these projects is specific in terms of the location as well as the time period.
    (b) Very little information about renewable energy is available for the implementation of these projects.
    (c) Information needed by these projects is mostly confidential and requires a lot of paperwork in order to gain access.
    (d) The information required by these projects is far greater than that required by any other project related to energy conservation.
    (e) The information required by these projects is very vast and sometimes unrelated to the project at hand.

75. What, according to the passage, is a drawback of renewable energy projects 'newness'?
    (a) The unfamiliarity with the concept of renew-able energy amongst the locals.
    (b) The low risk factor involved in its implementation attracts entrepreneurs who fail to complete these projects in time.
    (c) Too many investors willing to invest in these projects thereby creating confusion.
    (d) The absence of well-established links for networking, marketing and financing.
    (e) These require minimum paperwork thus there are few or no records of these projects being generated for future reference.

DIRECTIONS (Qs. 76 - 78): *Choose the word/group of words which is most similar in meaning to the word/ group of words printed in bold as used in the passage.*

76. **OUTSET**
    (a) Start (b) Periphery
    (c) Boundary (d) Culmination
    (e) Stage

77. **VIABILITY**
    (a) Technicality (b) Rigidity
    (c) Regularity (d) Commodity
    (e) Feasibility

78. **RECOGNIZED**
    (a) Predictable (b) Standard
    (c) Known (d) Resembled
    (e) Questioned

DIRECTIONS (Qs. 79-80) : *Choose the word/group of words which is most opposite in meaning to the word/ group of words printed in bold as used in the passage.*

79. **MITIGATE**
    - (a) Aggravate
    - (b) Anger
    - (c) Moderate
    - (d) Alienate
    - (e) Alleviate

80. **COMPLEX**
    - (a) Plain
    - (b) Simple
    - (c) Undisturbed
    - (d) Compound
    - (e) Unilateral

DIRECTIONS (Qs. 81-85) : *Read each sentence to find out whether there is any grammatical mistake/error in it. The error if any, will be in one part of the sentence. Mark the number of the part with error as your answer. If there is no error, mark (E).*

81. To run a company effectively (A)/ it is very important (B)/ in knowing the strengths and weaknesses (C)/ of the employees. (D)/ No error (E)
    - (a) A
    - (b) B
    - (c) C
    - (d) D
    - (e) E

82. The land records (A)/ of this district (B)/ will computerise (C)/ by next year. (D)/ No error (E)
    - (a) A
    - (b) B
    - (c) C
    - (d) D
    - (e) E

83. The Head Office has (A)/ issued instructions that (B)/ the performance of all Zonal Managers (C)/ have to assess by a committee. (D)/ No error (E)
    - (a) A
    - (b) B
    - (c) C
    - (d) D
    - (e) E

84. She has promised to (A)/ donate the funds to (B)/establish a library in many (C)/ villages in India. (D)/ No error (E)
    - (a) A
    - (b) B
    - (c) C
    - (d) D
    - (e) E

85. We have already (A)/ submitted our application (B)/ and expect to receive (C)/ our licence in thirty days.(D)/ No error (E)
    - (a) A
    - (b) B
    - (c) C
    - (d) D
    - (e) E

DIRECTIONS (Qs. 86-90) : *Rearrange the following five sentences 1, 2, 3, 4, and 5 in the proper sequence to form a meaningful paragraph then answer the questions given below them.*

1. What teachers repeatedly commented on was that she was "very creative' and had "an unusual way of thinking", etc.
2. A study done by the institute focuses on Roma, an individual with creative abilities.
3. But nowhere were Roma's these abilities recognised on her report cards, because there was no check-off box for artwork and creativity.
4. Some of her artwork were selected to represent her school at art exhibition at state the level art exhibition.
5. As a child, she had been a good student above average in most areas but not an exceptional early reader and writer.

86. Which of the following should be the **THIRD** sentence after rearrangement?
    - (a) 1
    - (b) 2
    - (c) 3
    - (d) 4
    - (e) 5

87. Which of the following should be the **FOURTH** sentence after rearrangement?
    - (a) 1
    - (b) 2
    - (c) 3
    - (d) 4
    - (e) 5

88. Which of the following should be the **SECOND** sentence after rearrangement?
    - (a) 1
    - (b) 2
    - (c) 3
    - (d) 4
    - (e) 5

89. Which of the following should be the **FIRST** sentence after rearrangement?
    - (a) 1
    - (b) 2
    - (c) 3
    - (d) 4
    - (e) 5

90. Which of the following should be the **FIFTH** sentence after rearrangement?
    - (a) 1
    - (b) 2
    - (c) 3
    - (d) 4
    - (e) 5

DIRECTIONS (Qs. 91-95) : *In each of the following sentence there are two blank spaces. Below each sentence there are five pair of words denoted by letters a, b, c, d, and e. Find out which pair of words can be filled up in the blanks in the sentence in the same sequence to make the sentence meaningfully complete.*

91. He objected to the proposal because it was founded on a .... principle arid also was .... at time.
    - (a) faulty ...... desirable
    - (b) imperative .... reasonable
    - (c) wrong ...... inconvenient
    - (d) sound ..... acceptable
    - (e) unconforming .... deplorable

92. The criterion for ..... a player should be his recent performance, but unfortunately, the journalists are . ... to be carried away by earlier successes.
    - (a) condemning .... satisfying
    - (b) judging ..... prone
    - (c) revealing ..... reluctant
    - (d) eager .... acclaiming
    - (e) criticising .... clean

93. For the last half century, he ..... himself to public affairs .... taking a holiday.
    - (a) by .... committed
    - (b) after .... offered
    - (c) devoted .... without
    - (d) sacrified .... after
    - (e) prepared .... before

94. You will see signs of ..... everywhere, which speak well for the .... of these people.
    - (a) decoration .... senses
    - (b) clear .... debris
    - (c) beauty .... careful
    - (d) industry .... prosperity
    - (e) repairs . ... extravaganza

95. The police arrested Ramesh on a .... of theft but for lack of evidence .... him.
    - (a) crime .... imprisoned
    - (b) punished .... complaint
    - (c) left ...... condition
    - (d) tip .... absconding
    - (e) charge .... released

DIRECTIONS (Qs. 96-100) : *In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each five words/ phrases are suggested, one of which fits the blank appropriately. Find out the appropriate word/phrase in each case.*

Twenty years from now, nearly 60% of the world's population will live in urban areas. The impact of urbanization might not all be positive on India as urban expansion is happening at a much faster rate than infrastructure expansion.

Sustainability issues need to be **(96)** so that eco nomic development is not at the **(97)** of public health. Some urban services that ought to be in **(98)** in a city like water, electricity, transport etc. need special consideration.
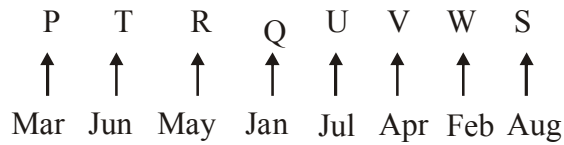
TERI has put together a detailed report that **(99)** sustainability in the provision of basic urban services in Indian cities.

Inadequate public transport is a major reason for the proliferation of private vehicles on the road. Respiratory illness in children living in urban areas is on the rise with more cases of Asthma being **(100)** because of pollution. The future of cities of Indian dreams depends on whether we can build better cities today.

96. (a) Speculated   (b) Believed
    (c) Imagined   (d) Considered
    (e) Understand

97. (a) Payment   (b) Rate
    (c) Costs   (d) Charge
    (e) Expense

98. (a) Abundance   (b) Large
    (c) Functional   (d) Vicinity
    (e) Location

99. (a) Bring   (b) Emphasizes
    (c) Speculates   (d) Postulates
    (e) Requests

100. (a) Produced   (b) Develop
     (c) Composed   (d) Resulted
     (e) Reported
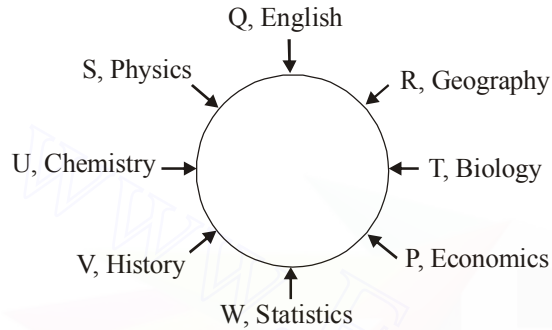
HINTS & SOLUTIONS

Solution: 1-5:

P	T	R	Q	U	V	W	S
↑	↑	↑	↑	↑	↑	↑	↑
Mar	Jun	May	Jan	Jul	Apr	Feb	Aug

1. (d) 2. (a) 3. (e) 4. (c) 5. (a)

Sol. 6-10

Q, English
S, Physics
R, Geography
U, Chemistry
T, Biology
V, History
P, Economics
W, Statistics

6. (a) Q
7. (c) Three
8. (e) V sits opposite to R, who likes Geography
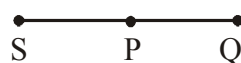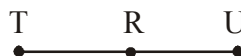9. (a) The person who likes Statistics
10. (c) Q, R

Sol. 11-15

Members	States	Games
Sania	Madhya Pradesh	Badminton
Kamal	Bihar	Table tennis
Pankaj	Odisha	Billiards
Anand	Kerala	Chess
Arjun	Haryana	Golf
Shewag	Maharashtra	Cricket
Sreejesh	Uttar Pradesh	Hockey

11. (a) 12. (c) 13. (d) 14. (c) 15. (d)
16. (c)

P   R   U

S   T   Q

N
W ← → F
S
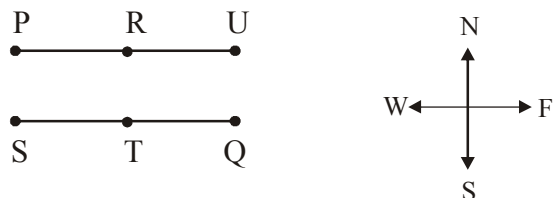
Interchanging flats P and T

T   R   U

S   P   Q

Hence flat R will be next to U.

17. (c)

P   R   U

S   T   Q

N
W ← → F
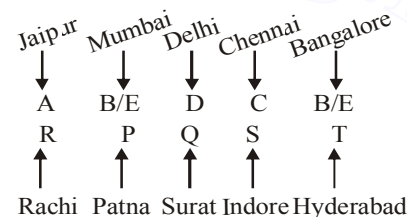S
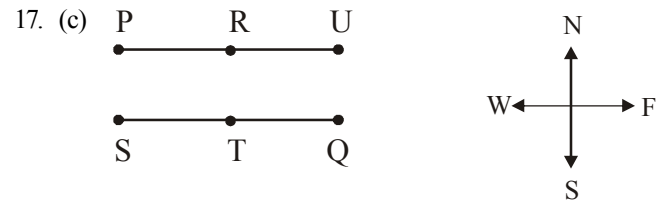
Hence, URP flat combination get south facing flats.

18. (a) A<B>C=D>=E (clearly B is greater than E and no relation between A and E)
19. (e) A>B=C<=D=E (clearly A is greater than C and E is greater than or equal to B)
20. (d) A=B>=C<=D<E (clearly E is not equal to A and C is not greater than A)
21. (b) A>=B>=C=D<E (no relation can be made between A and E and clearly E is greater than C)
22. (a) A>E<C>B=D (clearly C >D and No relation between B and A can be made)
23. (a) 24. (c) 25. (e)

Sol. 26-30

Floor No	Person	Car	Days
7	G	Skoda	Wednesday
6	B	Toyoto	Monday
5	A	Hyundai	Tuesday
4	E	Fiat	Friday
3	D	Chevrolet	Sunday
2	F	Honda	Saturday
1	C	Ford	Thursday

26. (d) 27. (a) 28. (c) 29. (a) 30. (e)

Sol. 31-35

Jaipur	Mumbai	Delhi	Chennai	Bangalore
↓	↓	↓	↓	↓
A	B/E	D	C	B/E
R	P	Q	S	T
↑	↑	↑	↑	↑
Rachi	Patna	Surat	Indore	Hyderabad

31. (e) 32. (c) 33. (d) 34. (c) 35. (b)
36. (c) Amount after 2.5 yrs = 3525, after 2 yrs = 3420
   So SI for half yr = 3525 − 3420 = 105, so for 1 yr SI = 105 × 2 = 210
   P + 2 × SI = 3420
   So P = 3420 − 2 × 210 = 3000
   So 3000 × r × 2/100 = 420
37. (a) Divide both equations, $[1 + r/100] = 37044/35280 = 21/20$
   So $P[21/20]^2 = 35280$

38. (c) When same quantity is sell at same price and percent gain and loss is same then there is always loss occurred. To calculate the loss percent =

$$\frac{(\text{Common loss or gain})^2}{10}$$

i.e. $\left(\frac{25}{10}\right)^2 = 6.25\%$ loss

39. (d) $\frac{d}{6} - \frac{40}{60} = \frac{d}{8} + \frac{12}{60}$

$\frac{d}{6} - \frac{d}{8} = \frac{12}{60} - \frac{40}{60}$

$2d/48 = 52/60$

$D = \frac{52 \times 40}{60 \times 2} = 20.8 = 21\,km$

40. (c) Speed of 2nd train = Speed of first train ×

$\left(\sqrt{\text{Time taken by 1st train after meeting}}\right.$

$\left. / \sqrt{\text{Time taken by 2nd train after meeting}}\right)$

41. (a) Rohit = x, Ronit = x+10
(x + 10) − 15 = 2 (x − 15)
Solve, x = 25
Ronit's 6 years after = x + 10 + 6

42. (a) Let the ages of these are A, B, C, D, E
So A + B + C = 84 × 3 = 252
And A + B + C + D = 80 × 4 = 320
So D = 320 − 252 = 68, so E = 68 + 3 = 71
Now B + C + D + E = 79 × 4 = 316
(A + B + C + D) − (B + C + D + E) = 320 − 316
So A − E = 4, so A = 71 + 4

43. (b) $(A + C) = \frac{1}{10} + \frac{1}{15} = \frac{1}{6}$. They worked for 4 days so did

$\frac{1}{6} \times 4 = \frac{2}{3} = 2/3rd$ of work

Remaining work = $1 - \frac{2}{3} = \frac{1}{3}$

Now A left, B and C working

$(B + C) = \left(\frac{1}{12} + \frac{1}{15}\right) = \frac{9}{60} = \frac{3}{20}$. They worked for x

days and completed 1/3rd of work so $\frac{3}{20} \times x = 1/3$, so

x = 20/9 days

Total = $4 + \frac{20}{9}$

44. (c) $\left(\frac{4}{12} - \frac{3}{15}\right) \times t = 1$

$t = \frac{15}{2}$ minute – in this time the tank will be filled. So

the capacity = $\frac{15}{2} \times 10 = 75$ litre

45. (b) First: Second: Third = 2:1:3

Third part = $3 \times \frac{2340}{6} = 1170$

46. (b) $3 \times 1 + 2 = 5$
$5 \times 2 + 3 = 13$
$13 \times 3 + 4 = 43.....$
Correct Number : 177

47. (d) $4 \times 3 = 12$
$12 \times 4 = 48$
$48 \times 5 = 240.....$
Correct Number: 12

48. (e) First series: 3, 10, 17, 24 (increased by 7)
Second Series: 5, 14, 23 (increased by 9)
Wrong Number: 12
Correct Number: 14

49. (b) $1 + 3^2 + 1 = 11$
$11 + 5^2 + 2 = 38$
$38 + 7^2 + 3 = 90$
$90 + 9^2 + 4 = 175$
$175 + 11^2 + 5 = 301$

50. (d) $7 \times 2 + 3 = 17$
$17 \times 2 + 5 = 39$
$39 \times 2 + 7 = 85$
$85 \times 2 + 9 = 179$
$179 \times 2 + 11 = 369$
$369 \times 2 + 13 = 751$

51. (a) $(x+2)(x+1) = (x-2)(x-3)$

$x = \frac{1}{2} = 0.5$

$(y+3)(y+2) = (y-1)(y-2)$

$y = -\frac{1}{2} = -0.5$

52. (a) $12x^2 + 29x + 14 = 0$
$x = -1.75, -0.6$
$y^2 + 9y + 18 = 0$
$y = -6, -3$

53. (a) $5x^2 - 18x + 9 = 0$
$x = 0.6, 3$
$3y^2 + 5y - 2 = 0$
$y = 0.33, -2$

54. (b) $17^2 + 144 \div 18 = x$
$x = 297$
$26^2 - 18 \times 21 = y$
$y = 676 - 378 = 29$

55. (d) $30x^2 + 11x + 1 = 0$
$30x^2 + 6x + 5x + 1 = 0$
$x = -0.16, -0.19$
$42y^2 + 13y + 1 = 0$
$42y^2 + 6y + 7y + 1 = 0$
$y = -0.14, -0.16$
Put on number line
$-0.19, -0.16, -0.16, -0.14$

56. (c) $16 \times 30 - 40 \times 9 = 480 - 360 = 120$

57. (c) $420/14 + 12 - 17 = 25$

58. (c) $\frac{41}{100} \times 800 - 150 = x - \frac{57}{100} \times 910$

59. (b) $? = 7048 - 4000 = 3048$
60. (a) $? = (4 \times 2 \times 2)/17 = 16/17$
61. (b) Percentage of females as a percentage of total population in

$A = \dfrac{24000}{64000} \times 100 = 37.5\%$

$B = \dfrac{24000}{72000} \times 100 = 33\dfrac{1}{3}\%$

$C = \dfrac{24000}{54000} \times 100 = 44\dfrac{4}{9}\%$

$D = \dfrac{30000}{80000} \times 100 = 37.5\%$

$E = \dfrac{36000}{60000} \times 100 = 60\%$

62. (a)
63. (c) The required average =

$$\left(\begin{array}{c} 40000 \times \dfrac{80}{100} + 48000 \times \dfrac{70}{100} + 30000 \\ \times \dfrac{90}{100} + 50000 \times \dfrac{60}{100} + 24000 \times \dfrac{75}{100} \end{array}\right) / 5$$

$= 140600 / 5 = 28120$

64. (a) Percentage of illiterate males in the given villages is as follows.

$A = \dfrac{8000}{64000} \times 100 = 12.5\%$

$B = \dfrac{14400}{72000} \times 100 = 20\%$

$C = \dfrac{3000}{54000} \times 100 = 5.55\%$

$D = \dfrac{20000}{80000} \times 100 = 25\%$

$D = \dfrac{20000}{80000} \times 100 = 25\%$

65. (e) % of litreate males in

$A = \dfrac{32000}{64000} \times 100 = 50\%$

$B = \dfrac{33600}{72000} \times 100 = 46\dfrac{2}{3}\%$

$C = \dfrac{27000}{54000} \times 100 = 50\%$

$D = \dfrac{30000}{80000} \times 100 = 37.5\%$

$E = \dfrac{18000}{60000} \times 100 = 30\%$

$\therefore$ It is the lowest in village E.

66. (b) No of girls in $T = \left(12 \times \dfrac{90000}{100}\right) - 7200 = 10800 - 7200$

$= 3600$

Total no of students in $Q = 13 \times 90000/100 = 11700$

$\% = 3600 \times \dfrac{100}{1700} = 30.77\% = 31\%$

67. (a) $\dfrac{6500 + 8900 + 5500 + 9100 + 7200 + 8000}{6}$

$= \dfrac{45200}{6}$

68. (d) Total no. of students in R

$= \dfrac{22 \times 90000}{100} = 19800$

No. of girls in $P = \dfrac{(18 \times 90000)}{100} - 6500 = 9700$

Difference $= 19800 - 9700 = 10100$

69. (d) Boys in $U = 8000$
Girls in $S = (16 \times 90000/100) - 9100 = 5300$
$80 : 53$

70. (b) $P = 18 \times \dfrac{90000}{100} = 16200$

$R = 22 \times \dfrac{90000}{100} = 19800$

$T = 12 \times \dfrac{90000}{100} = 10800$

Total $= 46,800$

71 (c)   72 (a)   73 (c)   74 (d)   75 (d)
76. (d) Outset means the start or beginning of something.
77. (c) Viability means the state or degree of being easily or conveniently done.
78. (c) Recognized means acknowledge the existence.
79. (a) Mitigate means to make less painful. Aggravate means to make worse.
80. (b) Complex means not easy to analyse or understand. Simple means easy to understand, presenting no difficulty.
81 (c)   82 (e)   83 (d)   84 (c)   85 (d)
86 (e)   87 (a)   89 (b)   90 (c)   91 (c)
92 (b)   93 (c)   94 (d)   95 (e)
96. (d) Consider means to think carefully about something.
97. (e) Expense means the cost required for something.
98. (d) Vicinity means the area near a particular place.
99. (b) Emphasize means to give special importance to something.
100. (e) Reported means account of something that one has observed.

Reasoning & Computer Aptitude

DIRECTIONS (Qs. 1-5) : *Study the following information carefully and answer the given questions.*

When a word and number arrangement machine is given an input line of words and numbers, it arranges them following a particular rule. The following is an illustration of Input and rearrangement.

INPUT : expect 30 more funny 41 52 sea 61 ring 36 89 joy

STEP 1 : expect funny 30 more 41 52 sea 61 ring 36 89 joy

STEP 2 : expect funny 89 61 30 more 41 52 sea ring 36 joy

STEP 3 : expect funny 89 61 joy more 30 41 52 sea ring 36

STEP 4 : expect funny 89 61 joy more 52 41 30 sea ring 36

STEP 5 : expect funny 89 61 joy more 52 41 sea ring 30 36

STEP 6 : expect funny 89 61 joy more 52 41 ring sea 36 30

And step VI is the last step of the above input. As per the rules followed in the above step, find out the appropriate step for the given output.

Input: best 11 all 25 my 47 81 equal 49 strength 16 and

Explanation

STEP 1 : all and best 11 25 my 47 81 equal 49 strength 16

STEP 2 : all and 81 49 best 11 25 my 47 equal strength 16

STEP 3 : all and 81 49 best equal 11 25 my 47 strength 16

STEP 4 : all and 81 49 best equal 47 25 11 my strength 16

STEP 5 : all and 81 49 best equal 47 25 my strength 11 16

STEP 6 : all and 81 49 best equal 47 25 my strength 16 11

Rule : In step 1 two words picked arranged in alphabetical order and placed it at the left corner and in step 2 , two numbers picked and arranged it in descending order next to words and so on.

1. Which of the following term exactly comes between 49 and equal in step 3 ?
   (a) my   (b) 11
   (c) strength   (d) best
   (e) None of these

2. How many elements are there between 25 and 16 in step 5 ?
   (a) One   (b) Three
   (c) Two   (d) Five
   (e) None of these

3. In step 6, equal and my, 11 and 49 are interchanged then which will be placed between 49 and equal ?
   (a) Two   (b) Three
   (c) Four   (d) Six
   (e) None of these

4. What is the position of 25 in step 4 from the right end?
   (a) Third   (b) Fourth
   (c) Sixth   (d) Fifth
   (e) None of these

5. Which of the following will be the final step of the given input ?
   (a) all and 16 11 best equal 25 47 my strength 49 81
   (b) my and 49 81 equal best 47 25 all strength 16 11
   (c) all and 81 49 best equal 25 47 my strength 11 16
   (d) all best 81 49 and equal 47 25 my strength 16 11
   (e) None of these

DIRECTIONS (Qs. 6-10) : *Study the following information carefully to answer the given questions.*

Seven persons - A, B, C, D, E, F and G live on seven different floors of a building but not necessarily in same order. Lowermost floor of building is numbered 1, one above that is numbered 2 and so on till top most floor is numbered 7. Each one of them also likes a different food recipe, namely Egg roll, Pizza, Burger, Noodles, Briyani, Fried Rice and Masala Dosa.(but not necessarily in same order).

- A lives an odd numbered floor but not on floor numbered Three. Only two persons live between D and the one who likes Briyani. The One who likes Burger lives immediately above C.

- The one who likes Pizza lives on odd numbered floors above D. B lives on the floors above E. Only three persons live between C and the one who likes Pizza.

- The one who likes Egg roll lives immediately above the one who likes Masala Dosa. G lives on an odd numbered floor. E does not like Burger.

- Only one person lives between B and E. The one who likes Briyani lives immediately above A. Neither C nor A likes Noodles.

6. Which of the following food recipe does A like?
   (a) Fried Rice   (b) Masala Dosa
   (c) Burger   (d) Pizza
   (e) Egg roll

7. Which of the following combinations is True with respect to the given arrangement?
   (a) Fried Rice - C   (b) Pizza - F
   (c) Masala Dosa - G   (d) Briyani - D
   (e) Noodles - B

8. If all the persons are made to sit in alphabetical order from top to bottom, positions of how many persons will remain unchanged?
   (a) Four   (b) None
   (c) Two   (d) One
   (e) Three

9. Which of the following statements is True with respect to the given arrangement?
   (a) The one who likes Masala Dosa immediately below A.
   (b) F likes Pizza
   (c) None of the given options is true.
   (d) Only four persons live between D and G
   (e) G lives immediately below E.

10. Who among the following lives on the floor numbered 2?
    (a) B
    (b) The one who likes Egg roll
    (c) The one who likes Masala Dosa
    (d) D
    (e) F

11. In which of these expressions 'S > V' be definitely false?
    (a) $S > P \geq Q = G \geq R > V$ (b) $P < A \leq S \leq T; V \geq O > T$
    (c) $V \leq A \leq L = R < S$ (d) $S > C \geq = F \leq H; V < F$
    (e) $S > T = O \geq P; V < J = P$

12. 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 both 'D>S' as well as 'E≤B' definitely holds true?
    B _ A _ S _ E _ D
    (a) $>, \geq, <, =$ (b) $>, >, \geq, <$
    (c) $\geq, \geq, \geq, \leq$ (d) $\geq, =, \geq, <$
    (e) Other than those given as options

13. In Which of the following expressions does the expression 'L=T' to definitely hold true?
    (a) $K \geq L ? R = P < S \leq T$
    (b) $U \geq T \geq M = F \leq A \geq L$
    (c) $L \geq C > Q \geq B = N \leq T$
    (d) $G \geq L = A < B \leq S \leq T$
    (e) $T \geq E = G \geq W = Y \geq L$

14. Which of the following expressions is true if the expression $P < T <= Q > S > M >= W$ is definitely true?
    (a) $W \leq P$ (b) $S < P$
    (c) $M > P$ (d) $W < Q$
    (e) $T \leq M$

15. **Statements:** $Y \leq K < D = S; D < V < O; G \geq D < Q$
    Conclusions: I. $G > V$, II. $Y < Q$
    (a) Only I is true
    (b) Only II is true
    (c) Either I or II true
    (d) Neither I nor II is true
    (e) Both I and II are true

DIRECTIONS (Qs. 16-20): *Study the following information carefully to answer the given questions.*

Eight people L, M, N, O, P, Q, R and S are sitting around a circular table with equal distance
between each other but not necessarily in the same order. Some of them are facing the centre while some are facing outside.(i.e away from the centre)
• M sits third to the left of L. Only three people sit between M and S. P sits to the immediate right of S.
• Immediate neighbours of P face opposite directions(i.e. if one neighbour faces the centre then the other neighbour faces outside and vice-versa.) Only one person sit between P and O.
• R sits second to the right of O. Both R and N face the same direction as S.(i.e if S faces the centre then R and N also faces the centre and vice-versa.)

• Immediate neighbours of Q faces opposite directions(i.e if one neighbour faces the centre then the other neighbour faces outside and Vice-versa.)
• P does not face outside. O faces a direction opposite to that of M.

16. How many people sit between L and Q when counted from the left of Q?
    (a) Five   (b) None
    (c) Four   (d) One
    (e) Two

17. Which of the following statements is true as per the given arrangement?
    (a) Q faces the centre
    (b) Only three people sit between P and L
    (c) R sits to the immediate right of N
    (d) None of the given options is true
    (e) N is an immediate neighbour of O

18. Who amongst the following sits third to the left of P?
    (a) Q   (b) N
    (c) M   (d) L
    (e) R

19. How many people face the centre as per the given arrangement?
    (a) Four   (b) One
    (c) Two   (d) Three
    (e) More than four

20. What will come in place of question mark (?) in the given series based on the positions as given in the arrangement?
    PS LR MP SM ?
    (a) ON   (b) SO
    (c) NQ   (d) OL
    (e) LS

DIRECTIONS (Qs. 21-25): *Study the sets of numbers given below and answer the questions which follow:*

129   642 921 476 308

21. Which of the following numbers will be obtained if the second digit of the lowest number is added to the third digit of the highest number after adding four to each number?
    (a) 5   (b) 6
    (c) 7   (d) 8
    (e) None of the Above

22. If the digits in each of the five numbers are arranged in descending order, the position of how many numbers will not change?
    (a) None   (b) One
    (c) Two   (d) Three
    (e) Four

23. Based upon the given set of numbers, four of the following five are alike in a certain way and so form a group. Which is the one does not belong to that group?
    (a) 647   (b) 264
    (c) 912   (d) 192
    (e) 380

24. If in each number, the digits are arranged in ascending order, what will be sum of middle digits of each of the numbers?
    (a) 14   (b) 12
    (c) 26   (d) 9
    (e) None of the Above

25. If in each number, the first and the last two digits are interchanged, which will be the second lowest number?
    (a) 129   (b) 642
    (c) 921   (d) 476
    (e) 308

DIRECTIONS (Qs. 26-30): *Study the following information Carefully to answer the given questions*

P, Q, R, S, T, U, V, W and X are sitting in a straight line, facing North. Three of them are not males. Two females sit adjacent to each other. Q is fourth to the left of V, who is second to the right of R, who is not the immediate neighbour of P.

- U is fourth to the right of R and is second to the left of X. S is not an immediate neighbour of either X or Q.
- S is not male. One of the persons sitting on the extreme ends is a female. T is not an immediate neighbour of either V or U.
- No female is an immediate neighbour of U. W does not sit second to the left of P. The immediate neighbour of S are male

26. Which of the following is a group of females ?
    (a) QTS   (b) TXP
    (c) SVR   (d) UWX
    (e) None of these

27. Who is sitting to the immediate left of S ?
    (a) V   (b) Q
    (c) W   (d) R
    (e) None of these

28. In which of the following combinations is the third person sitting between the first and the second person ?
    (a) PWU   (b) QTR
    (c) RST   (d) WUP
    (e) None of these

29. If Q and R, V and U interchange their position then how many persons are sitting between R and V ?
    (a) Four   (b) Five
    (c) Six   (d) Two
    (e) None of these

30. Who among the following sits third to the left of P ?
    (a) W   (b) V
    (c) R   (d) X
    (e) None of these

DIRECTIONS (Qs. 31-35) : *Each of the questions below. Consests of a question and two statement numbered I and II given below it. Read both statement and answer the questions.*

31. How far is point A from point D ?
    I. Point A is 4m to the north of point B .Point C is 3m to the east of point A. Point D is to the west of point A such that points C, A and S form a straight line of 7m
    II. Point F is 3m to south of point D. Point C is 4m to the east of point A. Point A is 3m to the north of point B. Point A lies on the line formed by joining points C and D.
    (a) Only I   (b) Only II
    (c) Both I and II   (d) Either I or II
    (e) Neither I or II

32. How many people are standing in a straight line. All are facing North directions.
    I. M stands third from the left end of the line. Only one person stands between M and O. P stands second to the right of O. P stands at one of the extreme lines

II. K stands exactly at the centre of the line. Only two people stand between K and L. Only three people stands between L and O. Only one persons stands between O and P
    (a) Only I   (b) Only II
    (c) Both I and II   (d) Either I or II
    (e) Neither I or II

33. What does 'Zee' represent in a code language ?
    I. In that code language 'ah koj zee pig' mean 'can you take that'
    II. In that code language 'et zee lin ter' means ' you may come now'
    (a) Only I   (b) Only II
    (c) Both I and II   (d) Either I or II
    (e) Neither I or II

34. Among K, L, M, N, O and P each has different age, who is the youngest among them ?
    I. L is younger than only K, and P. N is neither the oldest nor the youngest
    II. M is older than N but not the oldest
    (a) Only I   (b) Only II
    (c) Both I and II   (d) Either I or II
    (e) Neither I or II

35. Which among P, Q, R, S and T is the smallest ?
    I. P is greater than or equal to R which is equal to Q and greater than or equal to S and T.
    II. S is equal to R and is not greater than Q. P is greater than Q.
    (a) Only I   (b) Only II
    (c) Both I and II   (d) Either I or II
    (e) None of these

DIRECTIONS (Qs. 36-40): *In each question below is given a statement followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the two conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement.*

Give answer:
    (a) If only conclusion I follows
    (b) If only conclusion II follows
    (c) If either I or II follows
    (d) If neither I nor II follows and
    (e) If both I and II follow.

36. **Statements:** In a one day cricket match, the total runs made by a team were 200. Out of these 160 runs were made by spinners.
    Conclusions:
    I. 80% of the team consists of spinners.
    II. The opening batsmen were spinners.
    (a) Only conclusion I follows
    (b) Only conclusion II follows
    (c) Either I or II follows
    (d) Neither I nor II follows
    (e) Both I and II follow

37. **Statements:** The old order changed yielding place to new.
    Conclusions:
    I. Change is the law of nature.
    II. Discard old ideas because they are old.

(a) Only conclusion I follows
(b) Only conclusion II follows
(c) Either I or II follows
(d) Neither I nor II follows
(e) Both I and II follow

38. **Statements:** Government has spoiled many top ranking financial institutions by appointing bureaucrats as Directors of these institutions.
    Conclusions:
    I. Government should appoint Directors of the financial institutes taking into consideration the expertise of the person in the area of finance.
    II. The Director of the financial institute should have expertise commensurate with the financial work carried out by the institute.
    (a) Only conclusion I follows
    (b) Only conclusion II follows
    (c) Either I or II follows
    (d) Neither I nor II follows
    (e) Both I and II follow

39. **Statements:** Population increase coupled with depleting resources is going to be the scenario of many developing countries in days to come.
    Conclusions:
    I. The population of developing countries will not continue to increase in future.
    II. It will be very difficult for the governments of developing countries to provide its people decent quality of life.
    (a) Only conclusion I follows
    (b) Only conclusion II follows
    (c) Either I or II follows
    (d) Neither I nor II follows
    (e) Both I and II follow

40. **Statements:** Prime age school-going children in urban India have now become avid as well as more regular viewers of television, even in households without a TV. As a result there has been an alarming decline in the extent of readership of newspapers.
    Conclusions:
    I. Method of increasing the readership of newspapers should be devised.
    II. A team of experts should be sent to other countries to study the impact of TV. on the readership of newspapers.
    (a) Only conclusion I follows
    (b) Only conclusion II follows
    (c) Either I or II follows
    (d) Neither I nor II follows
    (e) Both I and II follow

DIRECTIONS (Qs. 41-45) : *In each question below is given a statement followed by two assumptions numbered I and II. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.*

Give answer
    (a) If only assumption I is implicit
    (b) If only assumption II is implicit
    (c) If either I or II is implicit

(d) If neither I nor II is implicit
(e) If both I and II are implicit.

41. **Statement:** "You are hereby appointed as a programmer with a probation period of one year and your performance will be reviewed at the end of the period for confirmation." - A line in an appointment letter.
    Assumptions:
    I. The performance of an individual generally is not known at the time of appointment offer.
    II. Generally an individual tries to prove his worth in the probation period.
    (a) Only assumption I is implicit
    (b) Only assumption II is implicit
    (c) Either I or II is implicit
    (d) Neither I nor II is implicit
    (e) Both I and II are implicit

42. **Statement:** It is desirable to put the child in school at the age of 5 or so.
    Assumptions:
    I. At that age the child reaches appropriate level of development and is ready to learn.
    II. The schools do not admit children after six years of age.
    (a) Only assumption I is implicit
    (b) Only assumption II is implicit
    (c) Either I or II is implicit
    (d) Neither I nor II is implicit
    (e) Both I and II are implicit

43. **Statement:** "In order to bring punctuality in our office, we must provide conveyance allowance to our employees." - In charge of a company tells Personnel Manager.
    Assumptions:
    I. Conveyance allowance will not help in bringing punctuality.
    II. Discipline and reward should always go hand in hand.
    (a) Only assumption I is implicit
    (b) Only assumption II is implicit
    (c) Either I or II is implicit
    (d) Neither I nor II is implicit
    (e) Both I and II are implicit

44. **Statement:** Unemployment allowance should be given to all unemployed Indian youth above 18 years of age.
    Assumptions:
    I. There are unemployed youth in India who needs monetary support.
    II. The government has sufficient funds to provide allowance to all unemployed youth.
    (a) Only assumption I is implicit
    (b) Only assumption II is implicit
    (c) Either I or II is implicit
    (d) Neither I nor II is implicit
    (e) Both I and II are implicit

45. **Statement:** "If you trouble me, I will slap you." - A mother warns her child.
    Assumptions:
    I. With the warning, the child may stop troubling her.
    II. All children are basically naughty.
    (a) Only assumption I is implicit
    (b) Only assumption II is implicit
    (c) Either I or II is implicit
    (d) Neither I nor II is implicit
    (e) Both I and II are implicit

Data Analysis & Interpretation

46. A certain sum of money amounts to rupees 2900 at 4% per annum in 4 years. In how many years will it amount to rupees 5000 at the same rate?
    (a) 20   (b) 22
    (c) 24   (d) 25
    (e) None of these

47. A trader gives an additional concession of 35% on an article which is already get discounted by 20% on the marked price. If the buyer pays an amount of 1300 for the article, then the marked price is
    (a) 2200   (b) 2500
    (c) 2600   (d) 2700
    (e) None of these

48. Two cities A and B are at a distance of 60 km from each other. Two persons P and Q start from First city at a speed of 10km/hr and 5km/hr respectively. P reached the second city B and returns back and meets Q at Y. Find the distance between A and Y.
    (a) 30km   (b) 40km
    (c) 50km   (d) 55km
    (e) 53 Km

49. 18 years ago the ratio of A's age to B's age was 8:13.Present age of their ages ratio is 5:7.What is the present age of B ?
    (a) 90 years   (b) 70 years
    (c) 60 years   (d) 50 years
    (e) None of these

50. X alone can do a piece of work in 5 days. Y can do the same piece of work in 4 days. X and Y are assigned to do the work for ₹ 5000.They complete the work in 2 days with the help of Z. How much is to be paid to Z ?
    (a) ₹ 750   (b) ₹ 620
    (c) ₹ 700   (d) ₹ 500
    (e) None of these

DIRECTIONS (Qs. 51-56) : *You have to solve equation I and II ,Give answer*

(a) If x > y
(b) If x < y
(c) If x ≥ y
(d) If x ≤ y
(e) If x = y or cannot be established

51. I. $4/\sqrt{x}+3/\sqrt{x}=\sqrt{x}$
    II. $\dfrac{\left(y^{35/2}-7^{5/2}\right)}{\sqrt{y}}=0$

52. I. $25x^2+25x+6=0$
    II. $5y^2+20y+20=0$

53. I. $2x^2+11x+12=0$
    II. $2y^2+19y+45=0$

54. I. $4x^2-19x+12=0$
    II. $3y^2+8y+4=0$

55. I. $4x^2-13x-12=0$
    II. $y^2-7y-60=0$

56. I. $X=(1024)^{1/2}$
    II. $Y^2=1024$

DIRECTIONS (Qs. 57-61) : *Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read all the three statements and give answer:-*

(a) If the data in statement I alone is sufficient to answer the question.
(b) If the data in statement II alone is sufficient to answer the question.
(c) If the data either in statement I alone or statement II alone are sufficient to answer the question.
(d) If the data given in both I and II together are not sufficient to answer the question.
(e) If the data in both the statements I and II together are necessary to answer the question

57. How much time did P take to reach the destination?
    I. Q takes 24 minutes to reach the same destination
    II. Ratio of the speed of P and Q is 3:4

58. In how many days A and B together complete a work?
    I. If A works alone for 10 days and B alone for 15 days, the work gets completed.
    II. A can complete the work in 14 days.

59. What is the difference between the ages of Y and X?
    I. The ratio of the age X to the age of Y is 3 : 2
    II. One sixth of X's age is equal to one fourth of Y's age.

60. What is the perimeter of the rectangular field?
    I. Area of the field is 72m².
    II. Length and breadth are in the ratio of 2:1.

61. What is the speed of boat in still water?
    I. It takes 4 hours to cover the distance between P and Q downstream
    II. It takes 6 hours to cover the distance between P and Q upstream.

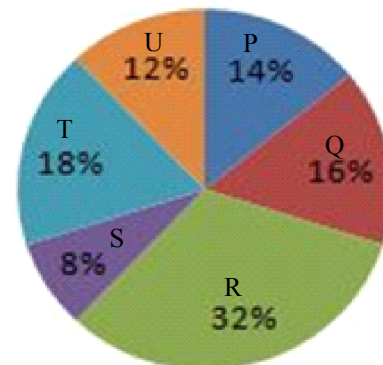**DIRECTIONS (Qs. 62-66) :** *Study the following pie-charts and information to answer the given questions*

Total no of employee in Company 1 - 20400
% of 6 levels of Employee in Company 1
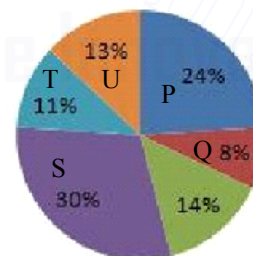
Total no of employee in Company 2 - 24800
% of 6 levels of Employee in Company 2

62. The number of P level employee in company 2 is approximately what percentage of the number of S level employee in company 1 ?
    (a) 55%   (b) 45%
    (c) 47%   (d) 57%
    (e) 59%

63. The number of R level employee in Company 1 is approximately equal to the number of which level employee in Company 2
    (a) U   (b) S
    (c) T   (d) R
    (e) Q

64. What is the total number of Q level employee in Company 1 is less than the Company 2 by approximately what percentage ?
    (a) 41.21%   (b) 41.12%
    (c) 42.21%   (d) 42.12%
    (e) 44.5%

65. The difference between the number of employees in the 2 companies of which level is maximum ?
    (a) P   (b) Q
    (c) R   (d) S
    (e) T

66. What is the total number of P level employee in Company 1 and R level employee in Company 2 together ?
    (a) 14564   (b) 13789
   (c) 12679   (d) 12832
    (e) 12932

DIRECTIONS (Qs. 67-71) : *Study the information carefully to answer the given questions*

In a college out of 600 students, boys and girls are in the ratio 8: 7. Each students went to either physics lab or chemical lab or both, 40% of the boys attend only physics lab, total 20% children went to both the labs out of which 25% are boys, 45% of the girls went to only chemistry lab.

67. Total how many boys went to only physics lab ?
    (a) 175   (b) 158
    (c) 156   (d) 134
    (e) None of these

68. How many girls went to only physics lab ?
    (a) 62   (b) 46
    (c) 64   (d) 60
    (e) None of these

69. Total number of students went to physics lab is what percentage of the total number of students in the college
    (a) 22%   (b) 32%
    (c) 33%   (d) 36%
    (e) None of these

70. What is the total number of girls went to chemistry lab ?
    (a) 216   (b) 210
    (c) 267   (d) 261
    (e) None of these

71. What is the total number of students went to only chemistry lab ?
    (a) 244   (b) 248
    (c) 284   (d) 288
    (e) None of these

DIRECTIONS (Qs. 72-76) : *Study the following information to answer the given questions*

Profit % earned by A and B over 2 yrs

	2010	2011	2012	2013	2014	2015
B Profit %	40	50	45	50	40	55
A Profit %	50	40	40	45	50	60
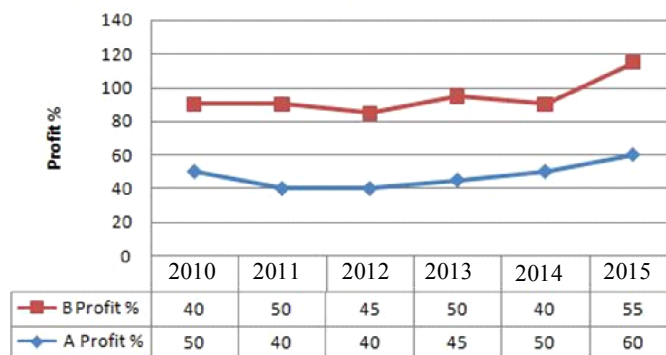
72. Expenditure of A in 2014 and 2015 are ₹12lak and ₹14lak. What was the total income of A in 2014 and 2015 together ?
    (a) ₹40.8 L   (b) ₹40.4 L
    (c) ₹44 L   (d) ₹46.4 L
    (e) None of these

73. Ratio of Expenditure of Companies A and B in 1993 was 4:5. What was the ratio of their incomes in the same year ?
    (a) 58:75   (b) 75:58
    (c) 78:55   (d) 72:55
    (e) None of these

74. Total Expenditure of company B in all the years together was ₹ 125 L. What was the total income of the company in all the years together ?
    (a) ₹185 L   (b) ₹520 L
    (c) ₹250 L   (d) Cannot be determined
    (e) None of these

75. If the incomes of the B in 2012 and 2013 were in the ratio 3:4, Find the ratio of Expenditures of that company in these 2 years ?
    (a) 48 : 55   (b) 42 : 53
    (c) 58 : 45   (d) 45 : 58
    (e) None of these

76. If the expenditure of A and B in 2011 were equal and total income of A and B was ₹ 116L, what was the total expenditure of A and B in the same years ?
    (a) ₹84 L   (b) ₹83 L
    (c) ₹80 L   (d) ₹40 L
    (e) None of these

77. From a group of 4 men ,3 women, 2 persons are selected at random, Find the probability at least one man is selected ?

    (a) $\dfrac{6}{7}$ (b) $\dfrac{7}{6}$

    (c) $\dfrac{5}{6}$ (d) $\dfrac{11}{21}$

    (e) $\dfrac{12}{21}$

DIRECTIONS (Qs. 78-80) : *Read the following information and answer the question that follow.*

An urn contain 6 orange, 4 green, 3 pink and 4 black balls. If 3 balls are picked at random,

78. What is the probability that all are pink ?

   (a) $\dfrac{2}{650}$ (b) $\dfrac{1}{680}$

   (c) $\dfrac{4}{630}$ (d) $\dfrac{3}{680}$

   (e) $\dfrac{4}{680}$

79. If 5 balls are picked at random, what is the probability that none are orange ?

   (a) $\dfrac{33}{442}$ (b) $\dfrac{442}{33}$

   (c) $\dfrac{15}{167}$ (d) $\dfrac{23}{235}$

   (e) $\dfrac{35}{235}$

80. If 3 balls are drawn at random, what is the probability that 1 is green and the other 2 are black ?

   (a) $\dfrac{2}{85}$ (b) $\dfrac{4}{87}$

   (c) $\dfrac{1}{85}$ (d) $\dfrac{3}{85}$

   (e) $\dfrac{5}{85}$

English Language

DIRECTIONS (Qs. 81-85) : *Read the passage given below and answer the questions that follow based on the information given in the passage.*

Right through history, imperial powers have clung to their possessions to death. Why, then, did Britain in 1947 give up the jewel in its crown, India? For many reasons. The independence struggle exposed the hollowness of the white man's burden. Provincial self-rule since 1935 paved the way for full self-rule. Churchill resisted independence, but the Labour Government of Atlee was anti-imperialist by ideology. Finally, the Royal Indian Navy Mutiny in 1946 raised fears of a second Sepoy Mutiny, and convinced British waverers that it was safer to withdraw gracefully. But politico-military explanations are not enough. The basis of empire was always money. The end of empire had much to do with the fact that British imperialism had ceased to be profitable. World War II left Britain victorious but deeply indebted, needing Marshall Aid and loans from the World Bank. This constituted a strong financial case for ending the no longer-profitable empire.

Empire building is expensive. The US is spending one billion dollar a day in operations in Iraq that fall well short of fullscale imperialism. Through the centuries, empire building was costly, yet constantly undertaken because it promised high returns. The investment was in armies and conquest. The returns came through plunder and taxes from the conquered. No immorality was attached to imperial loot and plunder. The biggest conquerors were typically revered (hence titles like Alexander the Great, Akbar the Great, and Peter the Great). The bigger and richer the empire, the more the plunderer was admired. This mindset gradually changed with the rise of new ideas about equality and governing for the public good, ideas that culminated in the French and the American Revolutions. Robert Clive was impeached for making a little money on the side, and so was Warren Hastings. The white man's burden came up as a new moral rationale for conquest. It was supposedly for the The Princeton Review CAT sample paper 12 good of the conquered. This led to much muddled hypocrisy. On the one hand, the empire needed to be profitable. On the other hand, the white man's burden made brazen loot impossible.

An additional factor deterring loot was the 1857 Sepoy Mutiny. Though crushed, it reminded the British vividly that they were a tiny ethnic group who could not rule a gigantic subcontinent without the support of important locals. After 1857, the British stopped annexing one princely state after another, and instead treated the princes as allies. Land revenue was fixed in absolute terms, partly to prevent local unrest and partly to promote the notion of the white man's burden. The empire proclaimed itself to be a protector of the Indian peasant against exploitation by Indian elites. This was denounced as hypocrisy by nationalists like Dadabhai Naoroji in the 19th century, who complained that land taxes led to an enormous drain from India to Britain. Objective calculations by historians like Angus Maddison suggest a drain of perhaps 1.6 percent of Indian Gross National Product in the 19th century.

But land revenue was more or less fixed by the Raj in absolute terms, and so its real value diminished rapidly with inflation in the 20th century. By World War II, India had ceased to be a profit centre for the British Empire. Historically, conquered nations paid taxes to finance fresh wars of the conqueror. India itself was asked to pay a large sum at the end of World War I to help repair Britain's finances.

But, as shown by historian Indivar Kamtekar, the independence movement led by Gandhiji changed the political landscape, and made mass-taxation of India increasingly difficult. By World War II, this had become politically impossible. Far from taxing India to pay for World War II, Britain actually began paying India for its contribution of men and goods. Troops from white dominions like Australia, Canada and New Zealand were paid for entirely by these countries, but Indian costs were shared by the British government. Britain paid in the form of non-convertible sterling balances, which mounted swiftly. The conqueror was paying the conquered, undercutting the profitability on which all empire is founded. Churchill opposed this, and wanted to tax India rather than owe it money.

But he was overruled by Indian hands, who said India would resist payment, and paralyze the war effort. Leo Amery, Secretary of State for India, said that when you are driving in a taxi to the station to catch a life-or-death train, you do not loudly announce that you have doubts whether to pay the fare. Thus, World War II converted India from a debtor to a creditor with over one billion pound in sterling balances. Britain, meanwhile, became the biggest debtor in the world. It's not worth ruling over people who are afraid to tax.

(The topic of the Passage asked in the exam was based on African banks)

81. Which of the following was NOT a reason for the emergence of the 'white man's burden' as a new rationale for empire building in India?
   (a) The emergence of the idea of the public good as an element of governance.
   (b) The decreasing returns from imperial loot and increasing costs of conquest.

   (c) The weakening of the immorality attached to an emperor's looting behaviour.

   (d) A growing awareness of the idea of equality among peoples.

   (e) None of these

82. Which of the following best expresses the main purpose of the author?

   (a) To present the various reasons that can lead to the collapse of an empire and the granting of independence to the subjects of an empire.

   (b) To point out the critical role played by the 'white man's burden' in making a colonizing power give up its claims to native possessions.

   (c) To highlight the contradictory impulse underpinning empire building which is a costly business but very attractive at the same time.

   (d) To illustrate how erosion of the financial basis of an empire supports the granting of independence to an empire's constituents.

   (e) None of these

83. What was the main lesson the British learned from the Sepoy Mutiny of 1857?

   (a) That the local princes were allies, not foes.

   (b) That the land revenue from India would decline dramatically.

   (c) That the British were a small ethnic group.

   (d) That India would be increasingly difficult to rule. The Princeton Review CAT sample paper 13

   (e) None of these

84. Which of the sfollowing best captures the meaning of the 'white man's burden', as it is used by the author?

   (a) The British claim to a civilizing mission directed at ensuring the good of the natives.

   (b) The inspiration for the French and the American Revolutions.

   (c) The resource drain that had to be borne by the home country's white population.

   (d) An imperative that made open looting of resources impossible.

   (e) None of these

85. Why didn't Britain tax India to finance its World War II efforts?

   (a) Australia, Canada and New Zealand had offered to pay for the Indian troops.

   (b) India had already paid a sufficiently large sum during World War I.

   (c) It was afraid that if India refused to pay, Britain's war efforts would be jeopardised.

   (d) The British empire was built on the premise that the conqueror pays the conquered.

   (e) None of these

DIRECTIONS (Qs. 86-93) : *Read the following passage carefully and answer the given questions.*

Today emerging markets account for more than half of world GDP on the basis of purchasing power according to the International Monetary Fund (IMF). In the1990s it was about a third and in the late 1990s 30% of countries in the developing world managed to increase their output per person faster than America did, thus achieving what is called 'catch-up growth'. That catching up was somewhat lackadaisical. The gap closed at just 1.5% a year. Some of this was due to slower grower in America, most was not. The most impressive growth was in four of the biggest emerging economies Brazil, Russia, India and China (BRICS). These economies have grown in different ways and for different reasons. The remarkable growth of emerging markets in general and the BRICS in particular transformed the global economy in many ways. Some wrenching commodity prices soared and the cost of manufacturers and labour sank. A growing and vastly more accessible pool of labour in emerging economies played a part in both wage stagnation and rising income inequality in rich ones. Global poverty rates tumbled. Gaping economic imbalances fuelled an era of financial vulnerability and laid the ground work for global crisis. The shift towards the emerging economies will continue. But its most tumultuous phase seems to have more or less reached its end. Growth rates have dropped, the nature of their growth is in the process of changing too and its new mode will have lesser direct effects on the rest of the world. The likelihood of growth in other emerging economies having an effect in the near future comparable to that of the BRICS in the recent past is low. The emerging giants will grow larger and their ranks will swell but their tread will no longer shake the Earth as it once did.

After the 1990s there followed 'convergence with a vengeance'. China's pivot towards liberalization and global markets came at a propitious time in terms of politics, business and technology. Rich economies were feeling relatively relaxed about globalization and current account deficits. America's booming and confident was little troubled by the growth of Chinese industry or by off-shoring jobs to India. And the technology etc., necessary to assemble and maintain complex supply chains were coming into their own, allowing firms to spread their operations between countries and across oceans. The tumbling costs of shipping and communication sparked 'globalization's second unbounding' (the fiat was the simple ability to provide consumers in one place with goods from another). As longer supply chains infiltrated and connected places with large and fast growing working-age populations, enormous quantities of cheap new labour became accessible. In 2007 China's economy expanded by an eye-popping 14.2%. India managed 10.1% growth, Russia 8.5% and Brazil 6.1%. The IMF now reckons there will be a slowdown in growth. China will grow by just 7.6% in 2013 India by 5.6% and Russia and Brazil by 2.5%. Other countries have impressive growth potential. 'Next 11' (N 11) which includes Bangladesh, Indonesia, Mexico, Nigeria and Turkey. But there are various reasons to think that this N11 cannot have an impact on the same scale as that of the BRICS. The first is that these economies are smaller. The N11 has a population of just over 1.3 billion, less than half that of the BRICS. The second is that the N11 is richer now than the BRICS were back in the day. The third reason that the performance of the BRICS cannot be repeated is the very success of that performance. The world economy is much larger than it used to be twice as in real terms as it was in 1992 according to IMF figures. But whether or not the world can build remarkable era of growth will depend in large part on whether new giants tread a path towards greater global co-operation or stumble in times of tumult and in the worst case fight.

(The topic of the Passage asked in the exam was based on Brain drain in China)

86. According to the passage which of the following is a reason for the author's prediction regarding N11 countries?

   (a) N11 countries are poorer, have less resources than BRICS countries and do not have much scope to grow

(b) The size of these countries is too great to fuel a high rate of growth as expected by BRICS countries

(c) The world economy is so large that the magnitude of growth from these countries will have to be huge to equal the growth of BRICS

(d) These economies are agricultural and have not opened up their economies yet so their scope of growth is greater than that of BRICS

(e) Other than those given as options

87. What is the author's view of globalization's second unbounding?
    (a) It proved beneficial since it created a large number of jobs and tremendous growth in crossborder trade
    (b) It disturbed the fragile balance of power among BRICS nations and caused internal strife
    (c) It caused untold damage to America's economy since it restricted the spread of American firms off-shore
    (d) It proved most beneficial for the agricultural sector creating huge employment opportunities
    (e) Citizens in advanced countries became much better off than those in emerging economies

88. What do the comparative statistics of 2007 and 2013 for BRICS countries published by the IMF as cited in the passage indicate?
    (a) BRICS economies are contributing less to global growth
    (b) As the population of these countries grows its growth rate is falling
    (c) The financial practices followed by these countries will continue to pay rich dividends
    (d) These countries are creating global financial imbalances to the detriment of smaller developing economies like Africa
    (e) IMF forecasts of growth rate for these countries have not been fulfilled

89. What effect did rise in economies of BRICS have on the global economy?
    (a) It helped stabilize the globle economy and insulate it from the fall out of the global financial crisis
    (b) Labour became more highly skilled and wages rose alarmingly reducing the off-shoring of jobs to developing countries
    (c) Though worldwide poverty rates tumbled, the gap between the rich and the poor in rich economies increased
    (d) The cost of living and level of inflation in these countries were maintained at low levels
    (e) All the given options are effects of the rise in BRICS economies

90. What does the phrase "their ranks will swell but their tread will no longer shake the Earth as it once did" convey in the context of the passage?
    (a) While many countries will try and achieve the same rate of growth as BRICS they will not succeed
    (b) The growth of BRICS countries has changed the world's economy in ways that any further growth will not have such a disruptive effect on the world economy
    (c) Developing countries have strengthened their fiscal systems in such a way that they will not be shaken to such an extent again

(d) Poverty may increase as the gap between the rich the poor increase but it will never reach the same levels as prior to the crisis

(e) Citizens in advanced countries became much better off than those in emerging economies

91. Which of the following best describes 'catch up growth'?
    (a) Emerging economies tried but failed to catch up with America which always grew at a higher growth rate
    (b) The size of emerging economies and their purchasing power has caught up with and now exceeds as rich countries together
    (c) The growth of the America economy determines the growth of emerging economies
    (d) In the latter half of the 1990s some emerging economies out did America in terms of output per person
    (e) None of the given statements describes catch up growth

92. Which of the following can be said about 'convergence with a vengeance'?
    A. After the 1990s advanced economies like America were open to the idea of free trade and globalization.
    B. There were huge technological advances which were conducive to allowing business to spread their area of operations.
    C. Rich economies felt threatened by the competition from China.
    (a) Only A   (b) Only B
    (c) Only C   (d) A and B
    (e) B and C

93. What is the author's main objective in writing this passage?
    A. To urge emerging economies to deal with growth which can be disruptive maturely and without conflict.
    B. To point out that while the period of growth of BRICS was disruptive this disruption has almost come to a close.
    C. To criticize advanced economies for their handling of growth and promoting competition and conflict in certain regions.
    (a) A and B   (b) Only A
    (c) Only C   (d) All A, B and C
    (e) B and C

DIRECTIONS (Qs. 94-100) : *In each of the following questions five options are given, of which one word is most nearly the same or opposite in meaning to the given word in the question. Find the correct option having either same or opposite meaning.*

94. Snitch
    (a) Bode   (b) Stitch
    (c) Suffix   (d) Sneak
    (e) Parity

95. Porch
    (a) Peek   (b) Demur
    (c) Verandah   (d) Capitulate
    (e) Bigotry

96. Vituperate
    (a) Examine   (b) Variegate
    (c) Belittle   (d) Compliment
    (e) Baleful

97. Conundrum
    (a) Abjure   (b) Quash
    (c) Riddle   (d) Thrill
    (e) Vendetta

98. Praise
    (a) Portend   (b) Lash
    (c) Fidget   (d) Creak
    (e) Visage

99. Notional
    (a) Quixotic   (b) Unworldly
    (c) Ethereal   (d) Impalpable
    (e) Cosmic

100. Vacillate
    (a) Dally   (b) Hem
    (c) Dither   (d) Sway
    (e) Waffle

DIRECTIONS (Qs. 101-105) : *In each of the following questions a short passage is given with one of the lines in the passage missing and represented by a blank. Select the best out of the five answer choices given, to make the passage complete and coherent (coherent means logically complete and sound).*

101. _____Business is instead moving to digital-native insurers, many of which are offering low premiums to those willing to collect and share their data. Yet the biggest winners could be tech companies rather than the firms that now dominate the industry. Insurance is increasingly reliant on the use of technology to change behaviour; firms act as helicopter parents to policyholders, warning of impending harm-slow down; reduce your sugar intake; call the plumber-the better to reduce unnecessary payouts. Yet this sort of relationship relies on trust, and the Googles and Apples of the world, on which consumers rely day-by-day and hour-by-hour, may be best placed to win this business.
    (a) The growing mountain of personal data available to individuals and, crucially, to firms is giving those with the necessary processing power the ability to distinguish between low-risk and high-risk individuals.
    (b) Cheap sensors and the tsunami of data they generate can improve our lives; blackboxes in cars can tell us how to drive more carefully and wearable devices will nudge us toward healthier lifestyles.
    (c) The better behaviour resulting from smart devices is just one threat to the insurance industry. Conventional risk pools (for home or car insurance, for example) are shrinking as preventable accidents decline, leaving the slow-footed giants of the industry at risk.
    (d) The uncertainty that underpins the need for insurance is now shrinking thanks to better insights into individual risks.
    (e) The data has enabled insurance companies to gauge the situation and plan accordingly.

102. By calling for exempting unionized businesses from the minimum wage, unions are creating more incentives for employers to favor unionized workers over the non-unionized sort. Such exemptions strengthen their power. _____.Once employers are obliged to pay the same minimum wage to both unionized and non-unionized labor, workers often see less reason to pay the dues to join a union.
    (a) High rates of unionization make minimum-wage rules unnecessary as collaborative wage setting achieves the flexibility goals of a low minimum wage and the fairness goals of a high one.
    (b) Workers who have no real alternative to employment in the unregulated shadows of the labor market are even more vulnerable to exploitation and abuse than workers with the legal right to take low wages.
    (c) The labor ethos of worker solidarity seems hollow if non-union workers are underpriced by union workers and left unemployed or scrambling for unauthorized work.
    (d) This is useful because for all the effort unions throw at raising the minimum wage, laws for better pay have an awkward habit of undermining union clout.
    (e) Unions have been demanding democratic vaues in the work cluture but on the contrary they have been practicing dictatorial ways.

103. The premise that the choice of major amounts to choosing a career path rests on the faulty notion that the major is important for its content, and that the acquisition of that content is valuable to employers. But information is fairly easy to acquire and what is acquired in 2015 will be obsolete by 2020. What employers want are basic but difficult-to-acquire skills. _____.
They care about a potential employee's abilities: writing, researching, quantitative, and analytical skills. A vocational approach to education eviscerates precisely the qualities that are most valuable about it: intellectual curiosity, creativity and critical thinking.
    (a) As students flock to the two or three majors they see as good investments, professors who teach in those majors are overburdened, and the majors themselves become more formulaic and less individualized.
    (b) Often it is the art historians and anthropology majors, for example, who, having marshaled the abilities of perspective, breadth, creativity, and analysis, have moved a company or project or vision forward.
    (c) Furthermore, the link between education and earnings is notoriously fraught, with cause and effect often difficult to disentangle.
    (d) Ideas such as education is necessary to be successful in corporate life are unacceptable because education isn't that much relevant into day's society.
    (e) When they ask students about their majors, it is usually not because they want to assess the applicants' mastery of the content, but rather because they want to know if the students can talk about what they learned.

104. What happens to our brains as we age is of crucial importance not just to science but to public policy. _____ However, this demographic time-bomb would be much less threatening if the elderly were looked upon as intelligent contributors to society rather than as dependants in long-term decline. It is time we rethink what we mean by the ageing mind before our false assumptions result in decisions and policies that marginalize the old or waste precious public resources to re-mediate problems that do not exist.
    (a) The idea that we get dumber as we grow older is just a myth, according to brain research that will encourage anyone old enough to know better.

(b) By 2030, for example, 72 million people in the US will be over 65, double the figure in 2000 and their average life expectancy will likely have edged above 20 years

(c) Many of the assumptions scientists currently make about 'cognitive decline' are seriously flawed and, for the most part, formally invalid.

(d) Using computer models to simulate young and old brains, Ramscar and his colleagues found they could account for the decline in test scores simply by factoring in experience

(e) The reason it becomes harder to recall an acquaintance's name as you grow older is that there are so many more of them.

105. The expenditure of time, money and sparse judicial and prosecutorial resources is often justified by claims of a powerful deterrent message embodied in the ultimate punishment- the death penalty._____
In 2010, the average time between sentencing and execution in the United States averaged nearly 15 years. A much more effective deterrent would be a sentence of life imprisonment imposed close in time to the crime.

(a) A single federal death penalty case in Philadelphia was found to cost upwards of $10 million - eight times higher than the cost of trying a death eligible case where prosecutors seek only life imprisonment.

(b) The ethics of the issue aside, it is questionable whether seeking the death penalty is ever worth the time and resources that it takes to sentence someone to death.

(c) Apart from delaying justice, the death penalty diverts resources that could be used to help the victims' families heal.

(d) But studies repeatedly suggest that there is no meaningful deterrent effect associated with the death penalty and further, any deterrent impact is no doubt greatly diluted by the amount of time that inevitably passes between the time of the conduct and the punishment.

(e) While some victims and their families supported and some opposed the decision, any expectation that Tsarnaev will be put to death might be misplaced.

106. Five statements are given below, labelled a, b, c, d and e. Among these, four statements are in logical order and form a coherent paragraph/passage. From the given options, choose the option that does not fit into the theme of the passage.

(a) Dinets first observed the behaviour in 2007 when he spotted crocodiles lying in shallow water along the edge of a pond in India with small sticks or twigs positioned across their snouts.

(b) The behaviour potentially fooled nest-building birds wading in the water for sticks into thinking the sticks were floating on the water.

(c) The crocodiles remained still for hours and if a bird neared the stick, they would lunge.

(d) Crocodiles are way clever than thought about generally.

(e) To see if the stick-displaying was a form of clever predation, Dinets and his colleagues performed systematic observations of the reptiles for one year at four sites in Louisiana, including two rookery and two non-rookery sites.

107. Five statements are given below, labelled a, b, c, d and e. Among these, four statements are in logical order and form a coherent paragraph/passage. From the given options, choose the option that does not fit into the theme of the passage.

(a) The competitive pressures in the environment have radically altered the context in which human Resource services are delivered in Indian organizations.

(b) The HR competencies, in other words, differentiate outstanding performers from average performers in the HR function.

(c) The traditional role of HR, based on the image of a transaction and administrative oriented HR practitioner providing services to a set of customers, is undergoing change.

(d) With the focus moving towards integrating HR into strategic planning of the organization, another dimension is added to the picture of HR service deliver.

(e) This change in focus calls for HR professionals taking up the emerging roles of advocate, business partner, and change agent in new organizational structures that are radically different from the past.

108. Five statements are given below, labelled a, b, c, d and e. Among these, four statements are in logical order and form a coherent paragraph/passage. From the given options, choose the option that does not fit into the theme of the passage..

(a) Every campaign leader known how to pick up and kiss a child in the crowds, how to hug an old widow, how to chant with the pundits, and show abeyance to the Mullahs.

(b) Did anyone hit at "quality" for infrastructure amenities, education, health and finally governance.

(c) Politics is still a game of money, mind and manipulations.

(d) False promise are not entirely a sin, but let these be redeemed by true, professional, and quality governance, that shows at the end of the tenure.

(e) Many Asian countries have transformed their work culture, and up-scaled their economies.

109. Five statements are given below, labelled a, b, c, d and e. Among these, four statements are in logical order and form a coherent paragraph/passage. From the given options, choose the option that does not fit into the theme of the passage.

(a) The emerging web services paradigm offers the promise of new efficiencies and improve integration designed to enhance collaboration between internal and external applications.

(b) For example web services can serve as a bridge between an e-procurement application and an internal inventory system.

(c) Although, web services are relatively nascent and adoption rates currently low, it is critical for ERP vendors to begin taking steps to prepare for their rapidly maturing initiative.

(d) As items are purchased through e-procurement application, a web service specific to inventory reduction can be invoked to adjust inventory levels.

(e) As soon as re-order points are hit, a Web services, the cycle time between buying and replenishment can be greatly reduced and the potential for errors virtually eliminated.

110. Five statements are given below, labelled a, b, c, d and e. Among these, four statements are in logical order and form a coherent paragraph/passage. From the given options, choose the option that does not fit into the theme of the passage.
    (a) Much of the modern use of metals happens behind closed doors of corporations, under the veil of trade secrets.
    (b) He chooses to restrict his analysis to metals and metalloids, which could face more critical constraints because many of them are relatively rare.
    (c) Even if we can find out how certain metals are used, it may not always be possible to determine the proportions they are used in.
    (d) The authors compromise was to account for the use of 80% of the material that is made available each year through extraction and recycling.
    (e) Their compromise was to account for the use of 80% of the material that is made available each year through extraction and recycling.

DIRECTION (Qs. 111-115) : *Select the phrase/connector from the given three options which can be used to form a single sentence from the two sentences given below, implying the same meaning as expressed in the statement sentences.*

111. If the issuer issues masala bond in rupees, then he gets rid of the risk in the form of currency fluctuation which he passes on to the investor. This bond brings a new and diversified set of investors for Indian companies and more liquidity in foreign exchange.
    A. Risk gets passed on the investor
    B. More liquidity in foreign exchange
    C. Masala bonds bring a new set of investors
    Pick out the option which when used to start a sentence combines both the above sentences in one.
    (a) Only A   (b) Only B
    (c) Only C   (d) Only A and B
    (e) None of the above

112. Captain Michael allowed his men to make important decisions in a democratic manner. This democratic attitude fostered a spirit of togetherness and commitment on the part of Michael's fellow explorers.
    A. As soon as
    B. In accordance with
    C. Allowing
    Pick out the option which when used to start a sentence combines both the above sentences in one.
    (a) Only A   (b) Only B
    (c) Only C   (d) Only A and B
    (e) None of the above

113. High interest rates on the loan the business procured consumed so much of their revenue that they were forced to liquidate some of their holdings. All this happened when its refinancing attempts failed.
    A. The high interest rates of the loan
    B. The business was forced to liquidate
    C. The high interest rate of the loan
    Pick out the option which when used to start a sentence combines both the above sentences in one.

    (a) Only A   (b) Only B
    (c) Only C   (d) Only A and C
    (e) None of the above

114. Reporting a 90 percent drop in net income during the second quarter, dragged down by restructuring charges and weak sales, the earnings guidance for the year was withdrawn by Best Buy Co.
    A. Report of a 90 percent drop in net income
    B. Best Buy Co. is reporting a 90 percent drop in net income
    C. Best Buy Co. has reported a 90 percent drop in net income
    Pick out the option which when used to start a sentence combines both the above sentences in one.
    (a) Only A   (b) Only B
    (c) Only C   (d) Only A and B
    (e) None of the above

115. Percival Lowell was interested in astronomy due to his belief in canals on Mars. However, modern astronomers dismiss this belief as material for pop science fiction.
    A. Percival Lowell was interested in astronomy
    B. Percival Lowell's interest in astronomy was due to
    C. Percival Lowell was interested in astronomy
    Pick out the option which when used to start a sentence combines both the above sentences in one.
    (a) Only A   (b) Only B
    (c) Only C   (d) Only A and C
    (e) None of the above

General /Economy/Banking Awareness

116. Indravati National Park is a national park located in which among the following states?
    (a) Odisha   (b) West Bengal
    (c) Chhatisgarh   (d) Assam
    (e) Tamil Nadu

117. EFTPOS is an electronic payment system involving electronic funds transfers based on the use of payment cards, such as debit or credit cards, at payment terminals located at points of sale. What is E in EFTPOS?
    (a) Electronic   (b) Essential
    (c) Every   (d) Effective
    (e) None of the above

118. The Book "One Indian Girl" is the 7th fictional novel and the 9th overall novel written by the Indian author.......?
    (a) Vikram Seth   (b) Arundhati Roy
    (c) Kiran Desai   (d) Aravind Adiga
    (e) Chetan Bhagat

119. Bhavanisagar Dam or Lower Bhavani Dam, is located in which state?
    (a) Kerala   (b) Tamil Nadu
    (c) Maharashtra   (d) West Bengal
    (e) Madhya Pradesh

120. RBI believes this boost to consumption will lead to gross value added (GVA) growth of _____ for 2016-17?
    (a) 7.1 per cent   (b) 7.0 per cent
    (c) 7.9 per cent   (d) 7.6 per cent
    (e) 7.3 per cent

121. The Sheikh Zayed Stadium is a cricket ground located in which among the following cities?
     (a) Abu Dhabi, UAE   (b) Dubai, UAE
     (c) Karachi, Pakistan   (d) Lahore, Pakistan
     (e) Hyderabad, India

122. The Organization of the Petroleum Exporting Countries (OPEC) is a permanent, intergovernmental Organization, created at the Baghdad Conference on September 10-14, 1960, by Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. Where is the headquartered of OPEC?
     (a) Geneva, Switzerland   (b) Belgium, Brussels
     (c) New York, USA   (d) Paris, France
     (e) Vienna, Austria

123. Indian and Chinese armies have held the second joint tactical exercise "Sino India Cooperation 2016 in which city?
     (a) Visakhapatnam, Andhra Pradesh
     (b) Ladakh, Jammu and Kashmir
     (c) Ajmer, Rajasthan
     (d) Dehradun, Uttarakhand
     (e) None of these

124. Dalai Lama has been given the honorary citizenship of which among the following cities?
     (a) Moscow, Russia   (b) Rome, Italy
     (c) Milan , Italy   (d) Paris, France
     (e) Sydney, Australia

125. The Election Commission of India has held the first ever International Conference on Voter Education in which city?
     (a) Patna   (b) Chennai
     (c) Lucknow   (d) New Delhi
     (e) Kolkata

126. The 11-member committee, headed by former Finance Secretary Ratan P Watal is related with which among the following committee?
     (a) Incentivise transactions through cards and digital
     (b) One Rank One Pension (c) Indo-Pakistani war and Simla Agreement (d) Financial inclusion or inclusive financing (e) None of these

127. Corporation Bank is a public sector banking company headquartered in. ....?
     (a) Kolkata   (b) Mangalore
     (c) Chennai   (d) Bengaluru
     (e) Mumbai

128. Cash Reserve Ratio (CRR) is a specified minimum fraction of the total deposits of customers, which commercial banks have to hold as reserves either in cash or as deposits with the central bank. CRR is set according to the guidelines of the central bank of a country. CRR controls-
     (a) It cheaper for banks to borrow money
     (b) Is a tool, which central bank uses for short-term purposes
     (c) Greater control to the central bank over money supply
     (d) Marking a shift from earlier method of calibrating various policy rates separately
     (e) None of these

129. Basic Savings Bank Deposit Account (BSBDA) is a Zero Balance Savings Account that takes care of your simple banking needs with Free ATM card, monthly statement, and cheque book. How much amount has withdrawal and transfer limit under BSBDA?
     (a) ₹ 1,00,000 per month   (b) ₹ 20,000 per month
     (c) ₹ 50,000 per year   (d) ₹ 10,000 per month
     (e) No Limit

130. Grama Vidiyal Microfinance, a Trichy-based microfinance company has acquired by which among the following Banks?
     (a) Punjab National Bank   (b) Bandhan Bank
     (c) ICICI Bank   (d) State Bank of India
     (e) IDFC Bank

131. Nassau is the capital, largest city, and commercial centre of the Commonwealth of the. ....?
     (a) Kenya   (b) Argentina
     (c) Uganda   (d) Iceland
     (e) Bahamas

132. Which is a hybrid security, combining features of preferred stock and corporate bonds?
     (a) UPI   (b) NPCI
     (c) NEFT   (d) MIPS
     (e) RTGS

133. Which among the following countries North Atlantic Treaty Organization (NATO) leaders will hold their next summit in 2017?
     (a) Beijing, China   (b) New York, USA
     (c) Paris, France   (d) Brussels, Belgium
     (e) London, UK

134. Kalikho Pul who has found hanging from a ceiling fan was the Chief Minister of which state?
     (a) Andhra Pradesh   (b) Madhya Pradesh
     (c) Arunachal Pradesh   (d) Himachal Pradesh
     (e) Uttar Pradesh

135. The highest currency note ever printed by the Reserve Bank of India (RBI) was a Rs 10,000 note during the British Raj. It was printed first in-
     (a) 1919   (b) 1946
     (c) 1938   (d) 1912
     (e) 1978

136. The Bermuda Triangle, also known as the Devil's Triangle, is a loosely-defined region in the western part of which Ocean?
     (a) Australia Ocean   (b) Atlantic Ocean
     (c) Southern, Ocean   (d) Indian, Ocean
     (e) None of the above

137. The Antwerp Diamond Bank is a small, 75-year-old bank that specializes exclusively in serving the diamond and the diamond jewelry sector. Where is the headquarter of the Antwerp Diamond Bank?
     (a) Vienna, Austria   (b) Antwerp, Belgium
     (c) Frankfurt, Germany   (d) Beijing, China
     (e) Washington DC, USA

138. Typhoon Haima made a second landfall in which country?
     (a) China   (b) India
     (c) Japan   (d) Malaysia
     (e) Singapore

139. In a bid to boost credit growth in the economy, the Centre announced a sum of how much crore for recapitalisation of 13 public sector banks?
    (a) ₹ 22,915 crore   (b) ₹ 27,110 crore
    (c) ₹ 10,000 crore   (d) ₹ 50,207 crore
    (e) ₹ 38,500 crore

140. Payments banks are a new model of banks conceptualized by the Reserve Bank of India (RBI). These banks can accept a restricted deposit which is currently limited to INR 1 lakh per customer account. How much amount minimum capital has requirement for Payments banks?
    (a) ₹ 1 crore   (b) ₹ 50 crore
    (c) ₹ 1000 crore   (d) ₹ 500 crore
    (e) ₹ 100 crore

141. Bharat Bill Payment System is a major component of the retail payment transactions in India, and is characterized by the presence of large number of billers, who provide a variety of payment options to their customers. According to information available on the RBI website, the top 20 cities are generating INR how much amount in bill payments every year ?
    (a) INR 16,810 billion   (b) INR 4,703 billion
    (c) INR 10,172 billion   (d) INR 6,223 billion
    (e) None of the above

142. Currency risk is the potential risk of loss from fluctuating foreign exchange rates when an investor has exposure to foreign currency or in foreign-currency-traded investments. Currency risk is sometimes referred to as-
    (a) Monetary Rate   (b) Export Rate
    (c) Trade Rate   (d) Exchange-rate risk
    (e) None of the above

143. The government has named _____ outside experts as members of the Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI), moving to a model followed in the developed world.
    (a) One   (b) Two
    (c) Three   (d) Four
    (e) Five

144. MasterCard is rolling out its Identity Check service, popularly known as _____ to customers in Europe through a new mobile app.
    (a) Selfie pay   (b) Voice Record
    (c) Finger print   (d) Video play
    (e) None of these

145. Who has launched the party name as People's Resurgence Justice Alliance (PRJA)?
    (a) Niranjan Jyoti   (b) Irom Sharmila
    (c) Aung San Suu Kyi   (d) Yogi Adityanath
    (e) None of these

146. The Reserve Bank of India (RBI) has released the Report of the Internal Working Group (IWG) on Rationalisation of Branch Authorisation Policy. The Group is chaired by. ....?
    (a) Bibek Debroy   (b) Madhukar Gupta
    (c) NR Nagendra   (d) Ratan P Watal
    (e) Lily Vadera

147. Mobile Money Identification Number (MMID) is a _____ digit number of which the first four digits are the unique identification number of the bank offering Immediate Payment Service (IMPS).
    (a) Seven   (b) Thirteen
    (c) Eleven   (d) Nine
    (e) None of these

148. All bank loans, including home loans, taken are now linked to the bank's marginal cost of funds based lending rate (MCLR). MCLR has effective from?
    (a) January 1, 2016   (b) September 1, 2015
    (c) April 1, 2015   (d) April 1, 2016
    (e) None of these

149. Two professors from Harvard and MIT have been awarded the Nobel Prize in economics for contributions to
    (a) Financial and real estate markets
    (b) Private prisons
    (c) Contract theory
    (d) Essential to the functioning
    (e) Research sheds light

150. _____ is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood.
    (a) Real-time gross settlement systems (RTGS)
    (b) Electronic Funds Transfer at Point of Sale (EFTPOS)
    (c) Bharat Bill Payment System (BBPS)
    (d) Unified Payments Interface (UPI)
    (e) None of these

151. Name the department that was set up by Union Finance Ministry to streamline government borrowings and better cash management with the overall objective of deepening bond markets.
    (a) Debt Management Cell
    (b) Department of Debt Management
    (c) Cell for management of debt
    (d) All of the above
    (e) None of these

152. The lock-in period in case of a term deposit means -
    (a) Locker service is not available
    (b) Premature withdrawal is not possible
    (c) Another account cannot be opened
    (d) No further investment is possible
    (e) None of these

153. Who of the following won India's first gold medal at the Rio Paralympic Games.
    (a) Varun Singh Bhati
    (b) Mariyappan Thangavelu
    (c) Ankur Dhama
    (d) Virender Dhanka
    (e) None of these

154. India in September 2016 signed Air Services Agreement under Open Sky Policy with which country ?
    (a) Russia   (b) Thailand
    (c) Greece   (d) Switzerland
    (e) None of these

155. Which of the following financial institutions is based in the Basel city of Switzerland?
    (a) IMF   (b) World Bank
    (c) ADB   (d) BIS
   (e) WTO

HINTS & SOLUTIONS

1. (d) All and 81 49 best equal 11 25 my 47 strength 16
2. (b) All and 81 49 best equal 47 25 my strength 11 16
3. (a) All and 81 11 best my 47 25 equal strength 16 49
4. (d) All and 81 49 best equal 47 25 11 my strength 16
5. (d) All best 81 49 and equal 47 25 my strength 16 11

Sol. 6-10

Floor No	Person	Food Recipe
7	G	Noodles
6	B	Briyani
5	A	Pizza
4	E	Egg roll
3	D	Masala dosa
2	F	Burger
1	C	Fried Rice

6. (d) 7. (a) 8. (c) 9. (c) 10. (e)
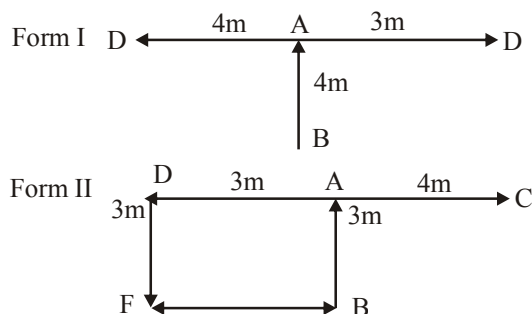11. (b) 12. (d) 13. (e) 14. (d) 15. (b)

Sol. 16-20
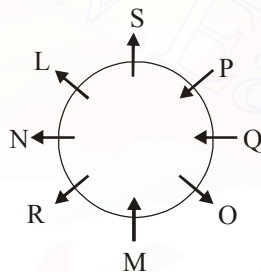
16. (a) 17. (a) 18. (c) 19. (d) 20. (a)
21. (d) Lowest Number = 129 + 4 = 133
Highest Number = 921 + 4 = 925
3 + 5 = 8
22. (c) 642 921
23. (e) Third digit becomes the first while the first shift two shift rightwards.
24. (e) 2 + 4 + 2 + 6 + 3 = 17
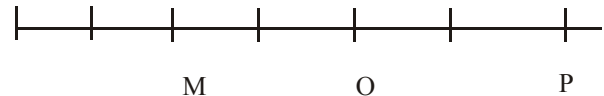25. (b) 921 246 129 674 803
246 - second lowest number

Sol. 26-30

Q(-) T(-) R(+) S(-) V(+) P(+) U(+) W(+) X(+)
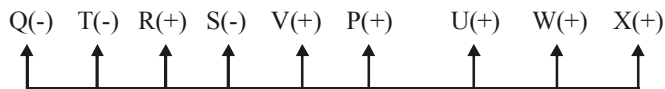
26. (a) 27. (d) 28. (a) 29. (b) 30. (c)
31. (d) Either I or II

Form I

4m A 3m
D ← A → D
4m
B

Form II

D 3m A 4m
D → A → C
3m   3m
F ↓   ↓ B

32. (a) Only I

M   O   P

33. (c) ah koj zee pig ⇒ can you take that
et zee lin ter' means ⇒ you may come now common
Zee ⇒ you
34. (c) K,P>L……..N……….
K.P>L>M>N>
35. (e) From I: P≥R=Q≥S,T
From II: S=R≤Q<P
36. (d) According to the statement, 80% of the total runs were made by spinners. So, I does not follow. Nothing about the opening batsmen is mentioned in the statement. So, II also does not follow.
37. (a) Clearly, I directly follows from the given statement. Also, it is mentioned that old ideas are replaced by new ones, as thinking changes with the progressing time. So, II does not follow.
38. (e) According to the statement, Government has spoiled financial institutions by appointing bureaucrats as Directors. This means that only those persons should be appointed as Directors who are experts in finance and are acquainted with the financial work of the institute. So, both I and II follow.
39. (b) The fact given in I is quite contrary to the given statement. So, I does not follow. II mentions the direct implications of the state discussed in the statement. Thus, II follows.
40. (d) The statement concentrates on the increasing viewership of TV. and does not stress either on increasing the readership of newspapers or making studies regarding the same. So, neither I nor II follows.
41. (e) The performance of the individual has to be tested over a span of time as the statement mentions. So, I is implicit. The statement mentions that the individual's worth shall be reviewed (during probation period) before confirmation. So, II is also implicit.
42. (a) Since the statement talks of putting the child in school at the age of 5, it means that the child is mentally prepared for the same at this age. So, I is implicit. But nothing about admission after 6 years of age is mentioned in the statement. So, II is not implicit.
43. (b) Assumption I goes against the statement. So, it is not implicit. The allowance will serve as a reward to the employees and shall provoke them to come on time. So, II is implicit.
44. (a) I directly follows from the statement and so is implicit. Also, the statement is a suggestion and does not tell about a government policy or its position of funds. So, II is not implicit.

45. (a) The mother warns her child with the expectation that he would stop troubling her. So, I is implicit. The general nature of children cannot be derived from the statement. So, II is not implicit.

46. (d) $2900 = p + \dfrac{p \times 4}{100} \times 4$

 $\therefore\ p = 2500$

47. (b) Marked Price $= \dfrac{1300 \times 100 \times 100}{80 \times 65} = 2500$

48. (b) Time taken by P to reach city B is 6hr. In 6 hr, distance covered by Q is 30km.

 Now at some x distance they will meet. So

 $\dfrac{x}{5} = \dfrac{30 - x}{10} \implies x = 10$

 So distance between A and Y is 30+10 =40 km

49. (b) $8x + \dfrac{18}{13}x + 18 = 5/7$

 $56x + 126 = 65x + 90$

 $9x = 36$

 $x = 4$

 $B = 13 \times 4 + 18 = 70$

50. (d) Z's one day work $= \dfrac{1}{2} - \left(\dfrac{1}{5} + \dfrac{1}{4} \right) = 10 - 4 - \dfrac{5}{20} = \dfrac{1}{20}$

 Ratio $= \dfrac{1}{5} : \dfrac{1}{4} : \dfrac{1}{20} = 4:5:1$

 $Z = 5000 \times \dfrac{1}{10} = 500$

51. (e) $\dfrac{7}{\sqrt{x}} = \sqrt{x}$

 $x = 7$

 $(y^{35/2} - 7^{5/2})/\sqrt{y} = 0$

 $y^{5/2} = 7^{5/2}$

 $y = 7$

 $x = y$

52. (a) $(5x+2)(5x+3) = 0$

 $x = -2/5, -3/5 = -0.4, -0.6$

 $(5y+10)(y+2) = 0$

 $x = -10/5, -2 = -2, -2$

 -0.4, -0.6, -2, -2

 $x > y$

53. (a) $(2x+8)(2x+3) = 0$

 $x = -8/2, -3/2 = -4, -1.5$

 $(2y+10)(2y+9) = 0$

 $y = -10/2, -9/2 = -5, -4.5$

 -1.5, -4, -4.5, -5

 $x > y$

54. (a) $(x-4)(4x-3) = 0$

 $x = 4, 3/4$

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

 $y = -2, -2/3$

 $4, \dfrac{3}{4}, -\dfrac{2}{3}, -2$

 $x > y$

55. (e) $(x-4)(4x+3) = 0$

 $x = 4, -3/4$

 $(x+5)(x-12) = 0$

 $y = 12, -5$

56. (c) $x = 32$

 $y = \pm 32$

 $x \geq y$

57. (e) $\dfrac{3x}{4x} = \dfrac{24}{t}$

 We get t = 32 minutes

58. (e) From I: $\dfrac{1}{A} \times 10 + \dfrac{1}{B} \times 15 = 1$

 From II: $\dfrac{1}{A} = \dfrac{1}{14}$

 From both, answer can be found.

59. (d) From I: X' age = 3x, Y's age = 2x

 From II : $\dfrac{1}{6} \times 3x = (1/4) \times 2x$. this gives $\dfrac{1}{2} = \dfrac{1}{2}$

 So no conclusion.

60. (e) From both equations, we get l = 12 and b = 6 so perimeter = 36

61. (d) $D = 4 \times (b+s)$ and $D = 6 \times (b-s)$

 So we can't find the value of b.

62. (d) $\dfrac{3472}{6120} = 56.7 = 57\%$

63. (a) *Company 1*

 P level $= 24 \times \dfrac{20400}{100} = 4896$

 Q level $= 8 \times \dfrac{20400}{100} = 1632$

 R level $= 14 \times \dfrac{20400}{100} = 2856$

 S level $= 30 \times \dfrac{20400}{100} = 6120$

 T level $= 11 \times \dfrac{20400}{100} = 2244$

 U level $= 13 \times \dfrac{20400}{100} = 2652$

 Company 2

 P level $= 14 \times \dfrac{24800}{100} = 3472$

 Q level $= 16 \times \dfrac{24800}{100} = 3968$

 R level $= 32 \times \dfrac{24800}{100} = 7936$

 S level $= 8 \times \dfrac{24800}{100} = 1984$

T level $= 18 \times \dfrac{24800}{100} = 4464$

U level $= 12 \times \dfrac{24800}{100} = 2976$

Company 1 - R $= 2856$
Company 2 - U $= 2976$
This only approximately equal

64. (b) Company 1 - Q $= 1632$
Company 2 - Q $= 3968$

$\% = \dfrac{1632 \times 100}{3968} = 41.12\%$

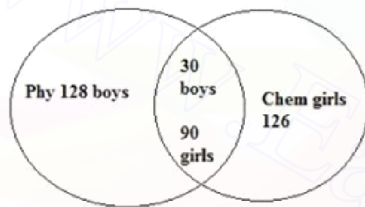65. (c) Company 1 - R $= 2856$
Company 2 - R $= 7936$
$7936 - 2856 = 5080$

66. (d) Company 1 - P $= 4896$
Company 2 - R $= 7936$
$7936 + 4896 = 12832$

67. (b)

$8:7 = 320 \,(\text{boys}) : 280 \,(\text{girls})$

$20\% \text{ both} = 20 \times \dfrac{600}{100} = 120$

$\text{B - (phy)} = 40 \times \dfrac{320}{100} = 128$

$\text{B - (both)} = 25 \times \dfrac{120}{100} = 30$

$\text{G - (chem)} = 45 \times \dfrac{280}{100} = 126$

Total no of boys(phy) $= 128 + 30 = 158$

68. (c) No of girls (phy) $= (280 - 126 - 90) = 64$
69. (b) Total no of students went to only phy $= 128 + 64 = 192$

$\% = 192 \times \dfrac{100}{600} = 32\%$

70. (a) Total no of Girls(chem) $= 126 + 90 = 216$
71. (d) Total no of students(chem) $= (320 - 128 - 30)B + 126G =$
$162 + 126 = 288$
72. (b) $1994 \, E = 12 \, L$
$\% P = (I - E) \times 100 / E$

$50 = (I - 12) \times \dfrac{100}{12}$

$I = 6 + 12 = 18 \, L$
$1995 \, E = 14L$

$60 = (I - 14) \times \dfrac{100}{14}$

$I = 22.4L$
Total $= 18 + 22.4 = 40.4L$

73. (a) $A : B = 40:50$

$45 = (I - 40) \times \dfrac{100}{40} \quad \dots (A)$

$I = 58L$

$50 = (I - 50) \times \dfrac{100}{50}$

$I = 75L \qquad \qquad \dots (B)$
$A:B = 58:75$

74. (d) Over all % is not known
75. (d) Income $\Rightarrow 1992:1993 = 3:4 = 30:40$

$45 = (30 - E) \times \dfrac{100}{E}$

$\dfrac{45E}{100} = 30 - E$

$\dfrac{9E}{20} = 30 - E$

$9E = 600 - 20E$
$29E = 600$

$E = \dfrac{600}{29} \dots\dots\dots\dots 1992$

$50 = (40 - E) \times \dfrac{100}{E}$

$\dfrac{50E}{100} = 40 - E$

$E = 2(40 - E)$
$E = 80 - 2E$
$3E = 80$

$E = \dfrac{80}{3}$

Ratio $= (600/29) / (80/3) = 600*3 / 29*80$
$= 1800/2320 = 180/232 = 45/58$

76. (c) For A

$40 = (I - E) \times \dfrac{100}{E}$

$40E = (I - E)100$
$2E = 5I - 5E$
$5I = 7E$

$I = \dfrac{7E}{5}$

For B

$50 = (116 - I - E) \times \dfrac{100}{E}$

$E = 2(116 - I - E)$
$E = 232 - 2I - 2E$
$2I = 232 - 3E$

$I = \dfrac{232 - 3E}{2}$

$$7/5E = \frac{-232 - 3E}{2}$$

$$14E = 1160 - 15E$$

$$29E = 1160$$

$$E = \frac{1160}{29} = 40$$

$$2E = 80$$

77. (a) $^7C_2 = \frac{7 \times 6}{2} = 21$

$^4C_1 \times {}^3C_1 + {}^4C_2 = 4 \times 3 + (4 \times 3)/2 = 12 + 6 = 18$

$P = 18/21 = 6/7$

78. (b) $^{17}C_3 = 17 \times 16 \times 15/3 \times 2 \times 1 = 4080/6 = 680$

$^3C_3 = 1$

$P = 1/680$

79. (a) $^{17}C_5 = 17 \times 16 \times 15 \times 14 \times 13/5 \times 4 \times 3 \times 2 \times 1 = 742560/120 = 6188$

$^{11}C_5 = 11 \times 10 \times 9 \times 8 \times 7/5 \times 4 \times 3 \times 2 \times 1 = 55440/120 = 462$

$P = 462/6188 = 33/442$

80. (d) $^{17}C_3 = 17 \times 16 \times 15/3 \times 2 \times 1 = 4080/6 = 680$

$^4C_1 \times {}^4C_2 = 4 \times 4 \times 3/2 \times 1 = 24$

$P = 24/680 = 3/85$

81. (b) 82. (d) 83. (c) 84. (a) 85. (c)
86. (e) 87. (a) 88. (a) 89. (c) 90. (b)
91. (d) 92. (b) 93. (b)

94. (d) Snitch and Sneak both have same meaning. Snitch and Sneak both mean to inform on someone.

95. (c) A porch or verandah means a covered shelter projecting in front of the entrance of a building. Both have same meaning.

96. (d) Vituperate and compliment both are antonyms. Vituperate means to insult someone in violent language while, compliment means to praise someone politely.

97. (c) Conundrum or Riddle means a confusing and difficult problem.

98. (b) Praise means to express warm approval while lash means to beat with a stick.

99. (a) Notional or Quixotic means not existing in reality.

100. (c) Vacillate or Dither means to wave between different opinions or actions.

101. (c) 102. (d) 103. (e) 104. (b) 105. (d)

106. (d) Option (d) does not fit into the theme of the passage as the given passage delineates the systematic observations of reptiles. It does focus the nature of crocodiles particularly.

107. (b) Option (b) is odd one out into the theme of the passage. The passage tells about the changing role of HR in the context of radically altered environment not about HR competencies.

108. (e) The passage depicts about the strategies followed by politicians during the election campaign. It does not pay attention upon economies.

109. (c) Option (c) does not fit into the theme of the passage.

110. (b) Option (b) is odd one out, all other options describes the modern uses of metals while option (b) is related to analysis of metals.

111. (e) 112. (c) 113. (b) 114. (c) 115. (c)
116. (c) 117. (a) 118. (e) 119. (b) 120. (d)
121. (a) 122. (e) 123. (b) 124. (c) 125. (d)
126. (a) 127. (b) 128. (c) 129. (d) 130. (e)
131. (e) 132. (d) 133. (d) 134. (c) 135. (c)
136. (b) 137. (b) 138. (a) 139. (a) 140. (e)
141. (d) 142. (d) 143. (c) 144. (a) 145. (b)
146. (e) 147. (a) 148. (d) 149. (c) 150. (d)
151. (a) 152. (b) 153. (a) 154. (c) 155. (d)

Quantitative Aptitude

1. Vikram invests some money in three different schemes for 4 years, 8 years and 12 years at 10%, 15% and 20% Simple Interest respectively. At the completion of each scheme, he gets the same interest. The ratio of his investments is
    (a) 6 : 2 : 1   (b) 5 : 2 : 1
    (c) 5 : 2 : 3   (d) 5 : 2 : 7
    (e) None of these

2. A sum of rupees 3903 is divided between P and Q such that the share of P at the end of 8 years is equal to the share of Q after 10 years. Find the share of P if rate of interest is 4% compounded annually.
    (a) 2012   (b) 2029
    (c) 2028   (d) 2081
    (e) None of these

3. Shopkeeper purchased some goods for ₹900 and sold one-third of the goods at a loss of what 12%, then at gain % should the remainder goods he sold to gain 18% profit on the whole transaction ?
    (a) 31%   (b) 26%
    (c) 33%   (d) 18%
    (e) None of these

4. A truck covers a distance of 376 km at a certain speed in 8 hours. How much time would a car take at an average speed which is 18 kmph more than that of the speed of the truck to cover a distance which is 14 km more than that travelled by the truck ?
    (a) 6 hours   (b) 5 hours
    (c) 7 hours   (d) 8 hours
    (e) 7.5 hours

5. Two trains are moving in opposite directions at 60 km/hr and 90 km/hr. Their lengths are 1.10 km and 0.9 km respectively. The time taken by the slower train to cross the faster train in seconds is:
    (a) 58 sec   (b) 50 sec
    (c) 48 sec   (d) 56 sec
    (e) None of these

6. James' father was 30 years old when he was born. His mother's age was 24 when his sister who is 5 years younger to him, was born. What is the difference between the age of James' father and mother?
    (a) 8   (b) 10
    (c) 6   (d) 11
    (e) 9

7. The average monthly expenditure of Mr. Ravi's family for the first three months is ₹2,750, for the next three months is ₹2,940 and for the last three months ₹3,150. If his family saves ₹4980 for nine months, find the average monthly income of the family for the 9 months?
    (a) ₹3800   (b) ₹3500
    (c) ₹3400   (d) ₹4200
    (e) ₹4500

8. A and B undertake to complete a piece of work for Rupees 1200. A can do it in 8 days, B can do it in 12 days and with the help of C they complete the work in 4 days. Find the share of C?
    (a) 100   (b) 200
    (c) 300   (d) 400
    (e) None of these

9. Three pipes A, B, and C can fill the tank in 10 hours, 20 hours and 40 hours respectively. In the beginning all of them are opened simultaneously. After 2 hours, tap C is closed and A and B are kept running. After the 4th hour, tap B is also closed. The remaining work is done by tap A alone. What is the percentage of the work done by tap A alone?
    (a) 30%   (b) 35%
    (c) 45%   (d) 50%
    (e) None of these

10. In a school the number of boys and girls are in the ratio of 4:7. If the number of boys are increased by 25% and the number of girls are increased by 15%. What will be the new ratio of number of boys to that of girls?
    (a) 100:131   (b) 100:151
    (c) 100:161   (d) 100:181
    (e) None of these

DIRECTIONS (11-15) : In these questions, a number series is given. Find out the missing number.

11. 279936, 46656, 7776, 1296, 216, ?
    (a) 60   (b) 66
    (c) 46   (d) 26
    (e) 36

12. 139, 142, 133, 160, 79, ?
    (a) 326   (b) 322
    (c) 331   (d) 340
    (e) 355

13. 164, 40, ?, 43, 188
    (a) 224   (b) 68
    (c) 90   (d) 176
    (e) None of these

14. 96, 320, 800, 1600, ?
    (a) 640   (b) 2666.7
    (c) 2500   (d) 2400
    (e) None of these

15. 6 4 6 12 22 ?
   (a) 26   (b) 36
    (c) 86   (d) 66
    (e) 46

DIRECTIONS (16-20) : In the following questions two equations numbered I and II are given. You have to solve both the equations and give answer

    (a) $x > y$ (b) $x < y$
    (c) $x \geq y$ (d) $x \leq y$
    (e) x = y or relation cannot be established

16. $x^2 + 30x + 221 = 0$
        $y^2 - 53y + 196 = 0$

17. $2x^2 - 9x + 10 = 0$
        $y^2 - 18y + 72 = 0$

18. $x(35 - x) = 124$
        $y(2y + 3) = 90$

19. $1/(x - 3) + 1/(x + 5) = 1/3$
        $(y + 2)(27 - y) = 210$

20. $\sqrt{36x} + \sqrt{64} = 0$

        $\sqrt{81y} + (4)^2 = 0$

DIRECTIONS (21-25) : What approximate value should come in place of the question mark (?) in the following questions? (You are not expected to calculate the exact value.)

21.   25.675% of 1321 + 64.328% of 4001 = ___?___
    (a) 2912   (b) 3016
    (c) 3126   (d) 3254
    (e) 3348

22. $8(2/7) + 30\%$ of $60 + 10(5/9) = ?$
    (a) 32   (b) 34
    (c) 37   (d) 44
    (e) 41

23.   46% of ? = 46916
    (a) 101993.3   (b) 101991.3
    (c) 101993.1   (d) 101993.2
    (e) None of these

24. $[(729)^{1/2} + (0.0016)^{1/2}]/8$ of $134.567 = ?$
    (a) 451   (b) 453
    (c) 455   (d) 456
    (e) 457

25. $299 \div 12 \times 13.95 + ? = 252$
    (a) 277   (b) 270
    (c) 287   (d) 275
    (e) None of these

DIRECTIONS (26-30) : The graph below shows the end of the month market values of 4 shares for the period from January to June. Answer the following questions based on this graph
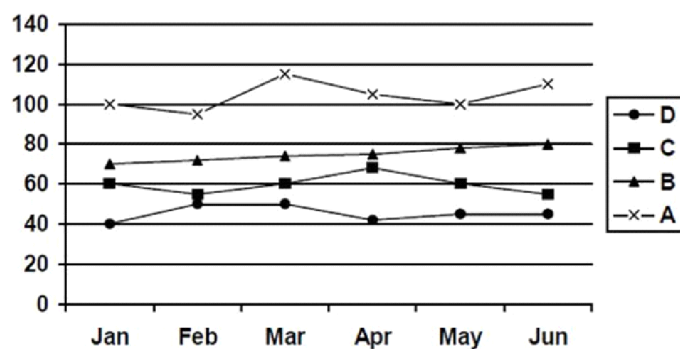
26.   Which share showed the greatest percentage increase in market value in any month during the entire period?
    (a) A   (b) B
    (c) C   (d) D
    (e) Both a and b

27.   In which month was the greatest absolute change in market value for any share recorded?
    (a) March   (b) April
    (c) May   (d) June
    (e) Feb

28.   In which month was the greatest percentage increase in market value for any share recorded?
    (a) February   (b) March
    (c) April   (d) May
    (e) June

29.   An individual wishes to sell 1 share of C and 1 share of D to buy 1 share of A at the end of a month. At which month-end would the individual's loss from this decision, due to share value changes, be the most?
    (a) February   (b) March
    (c) April   (d) June
    (e) Jan

30.   An individual decides to sell 1 share of C and 1 share of D to buy 1 share of A at the end of the month. What can be the individual's greatest gain from this decision, due to share value changes?
    (a) 5   (b) 10
    (c) 15   (d) none
    (e) 20

DIRECTION (31-35): Study the following graph carefully to answer the questions given below
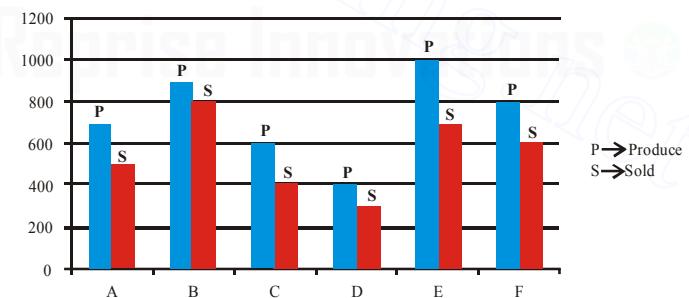
P → Produce
S → Sold

31.   What is the average number of units produce by all companies together ?(approx)
    (a) 700   (b) 720
    (c) 733   (d) 740
    (e) 750

32.   Which company had the lowest percentage of sales with respect to its production ?
    (a) Company A   (b) Company B
    (c) Company C   (d) Company D
    (e) Company E

33. What is the ratio of the total production of the company B and C together to the total sales of the same companies ?
    (a) 4:5   (b) 5:4
    (c) 5:2   (d) 2:3
    (e) None of these

34. The total unit sold by D, E, F together is approximately what percentage of the total units produced by these companies ?
    (a) 72%   (b) 72.12%
    (c) 72.22%   (d) 72.72%
    (e) 73.67%

35. What is the ratio of total production of all the companies to the total sales of all the companies ?
    (a) 4:3   (b) 3:4
    (c) 3:2   (d) 2:3
    (e) None of these

Reasoning Ability

36. What should come in place of question mark in the expression $P > Q ? R < T < S$ so as to make the expressions P>R and S>Q always true?
    (a) =   (b) >
    (c) <   (d) >=
    (e) None of these

37. What should come in place of question mark in the expression $A = B > C ? D < E = F$ so as to make the expression F>C always true?
    (a) >   (b) =
    (c) >=   (d) <=
    (e) Both (b) and (d)

38. Statements: $P = S, P < Q, R <= Q, R <= T$
    Conclusions : a) Q > S b) Q = T
    (a) Only one follow   (b) Only two follow
    (c) Neither follows   (d) Both follow
    (e) Either follow

39. Statements: $- A > N, K >= N, K > M, R > M$
    Conclusions: - a) M = N b) R >= A
    (a) Only one follow   (b) Only two follow
    (c) Neither follows   (d) Both follow
    (e) Either follow

40. What should come in place of question mark to make B> D always true?
    $A = B > C ? D < E$
    (a) >   (b) <
    (c) >=   (d) <=
    (e) both a and c

DIRECTIONS (41-45): Read the information carefully and answer the questions that follows:
    (a) only I follows   (b) only II follows
    (c) either I or II   (d) neither I nor II
    (e) both I and II

41. Statements: Some pens are pencils. Some pencils are erasers. Some erasers are sharpeners. Some sharpeners are dusters.
    Conclusions:
    I. Some sharpeners are not pencils.
    II. All dusters are pens.

42. Statements: All squares are circles. No circle is cone. Some cones are spheres. Some rectangles are circles.
    Conclusions:
    I. All rectangles being cones is a possibility
    II. All rectangles being sphere is a possibility

43. Statements: All squares are circles. No circle is cone. Some cones are spheres. Some rectangles are circles.
    Conclusions:
    I. Some rectangles are not cones.
    II. No square is cone

44. Statements: Some reds are greens. All greens are blues. All blues are oranges. No yellow is blue.
    Conclusions:
    I. No red is yellow.
    II. Some oranges are greens

45. Statements: Some reds are greens. All greens are blues. All blues are oranges. No yellow is blue.
    Conclusions:
    I. Some yellows are greens is a possibility.
    II. All yellows being oranges is a possibility

46. Anil starts walking in east direction and after travelling some distance he took a right turn and then a left turn followed by another left turn. Now he again took a right turn and finally took a left turn. In which direction is anil walking.
    (a) south   (b) north
    (c) east   (d) west
    (e) None of these

DIRECTIONS(Qs.47-51) Study the following information carefully to answer the given questions.

Eight people A, B, C, D, E, F, G and H are sitting in a traight line with equal distances between each other, but not necessarily in the same order. Some of them are facing North and some of them are facing south.

• A sits at one of the extreme ends of the line. Only three people sit between A and G. E sits exactly between A and G.

• H sits third to the right of   (e)   B is an immediate neighbour of H and faces south. C sits second to the right of F. C is not an immediate neighbour of G.

• Immediate neighbour of G face opposite directions(i.e. if one neighbour faces North then the other neighbour faces south and Vice-Versa)

• A and D face the same direction as E(i.e if E faces north then A and D also face North and Vice-Versa). Both the immediate neighbours of E face south.

47. In the given arrangement, if two people come and sit to the immediate left of E, how many people will sit between F and C?
    (a) Two   (b) Three
    (c) Four   (d) More than four
    (e) One

48. Who amongst the following sits third to the right of F?
    (a) A
    (b) B
    (c) Other than those given as options
    (d) D
    (e) E

49. How many people face North as per the given arrangement?
    (a) Two   (b) Three
    (c) Four   (d) More than four
    (e) One

50. Four of the following five are alike in a certain way based upon their seating arrangement and so form a group. Which of the following does not belong to the group?
    (a) EC   (b) AF
    (c) BF   (d) CG
    (e) DG

51. Who amongst the following sits at the extreme end of the row?
    (a) B   (b) C
    (c) D   (d) E
    (e) Other than those given as options

52. A person starts walking in south direction and walks a distance of 7 meters. Now he tooks a left turn and walk 6m. Again he takes a left turn and walk 15m and reached a point P. Find the distance between starting point and P and in which direction is the person from the initial point.
    (a) 10m, south east   (b) 10m, north west
    (c) 10m, north east   (d) 10m, south west
    (e) None of these

DIRECTIONS(Qs.53-55) : Read the information carefully and answer the questions that follows:
    'P × Q' means 'P is son of Q'.
    'P + Q' means 'P is daughter of Q'.
    'P ÷ Q' means 'P is wife of Q'.
    'P - Q' means 'P is father of Q'.

53. In the expression 'K + H - P ? Q', what will come in place of ? if Q is mother of K?
    (a) +   (b) -
    (c) ÷   (d) ×
    (e) None of these

54. Which of the following relation is true with regard to expression 'B ÷ P × Z - K + O'?
    (a) P is brother of O
    (b) B is daughter-in-law of K
    (c) B is daughter-in-law of O
    (e) O is daughter of Z
    (e) None of these

55. Which of the following pairs represent the first cousins in the expressions - 'L ÷ V - J + P' and 'S × A - D + F - E + K' - if it is given that A is the sister of J?
    (a) LP   (b) SP
    (c) SK   (d) SF
    (e) Cannot be determined

DIRECTIONS(Qs.(56-60): Study the given information carefully and answer the questions that follow: -
- Eight friends - P, Q, R, S, T, U, V and W - are sitting around a circular table facing the centre but not necessarily in the same order. Each of them likes different cricketers - Kohli, Rohit, Dhawan, Smith, Warner, Root, Gayle and Nehra.
- There are two persons between those two persons who like Kohli and Rohit and neither of them sits opposite P. R and V are immediate neighbours and neither of them likes Nehra or Rohit. P, who likes Gayle, sits second to the right of the girl who likes Nehra. Q and T neither like Nehra nor sit adjacent to P. T, who likes Rohit, sits second to the left of V, who likes Smith. R does not like Kohli.
- The immediate neighbour of T faces R, who sits third to the left of the one who likes Gayle. U does not like Nehra. Both S and W do not like Kohli and Dhawan. Q likes Root while S likes Warner. Q is not an immediate neighbour of P.

56. Which of the following is the favourite cricketer of P?
    (a) Warner   (b) Kohli
    (c) Dhawan   (d) Gayle
    (e) None of these

57. Dhawan is the favourite cricketer of which of the following?
    (a) P   (b) Q
    (c) R   (d) S
    (e) None of these

58. Who among the following is exactly between Q and S?
    (a) R   (b) U
    (c) V   (d) T
    (e) None of these

59. Four of the following five are alike in a certain way based on the given arrangement and thus form a group. Which of the following does not belong to that group?
    (a) V- Smith   (b) P - Gayle
    (c) Q - Kohli   (d) R - Dhawan
    (e) S - Warner

60. Who is sitting opposite to the person who likes Nehra?
    (a) Q   (b) T
    (c) P   (d) R
    (e) None of these

DIRECTIONS (61-65): Study the following information carefully to answer the given questions
- Gopi, Nithya, Shilpa, Renu, Gowtham, Priya, Prasanth and Sridhar are sitting around a square table in such a way that four of them sit at four corners of the square while four sit in the middle of each of the four sides. The ones who sit at the four corners face the centre while those who sit in the middle of the sides face outside.
- Two females sit in the middle of the sides and two at the corners. Shilpa sits second to the left of Prasanth. Prasanth sits in the middle of one of the sides. Gopi sits fourth to the right of his wife and his wife is not an immediate neighbour of Shilpa or Prasanth.
- Nithya sits third to right of her husband. Nithya does not sit at any of the corners. Only Renu sits between Nithya and Sridhar. Sridhar is the husband of Shilpa. Gowtham is a male.

61. Which of the following is true with respect to the given seating arrangement?
    (a) No two males are immediate neighbours of each other
    (b) Prasanth and Sridhar do not face each other in the seating arrangement

(c) Gowtham and Renu are immediate neighbours of each other

(d) Priyasits diagonally opposite to Gowtham

(e) Gowtham sits in the centre of one of the sides of the square table

62. Who amongst the following is Nithya's husband?
   (a) Gopi   (b) Prasanth
   (c) Gowtham   (d) Priya
   (e) Cannot be determined

63. How many people sit between Nithya and Gopi when counted in anti-clockwise direction from Nithya?
   (a) None   (b) One
   (c) Two   (d) Three
   (e) Four

64. Who amongst the following is the wife of Gopi?
   (a) Renu   (b) Priya
   (c) Nithya   (d) Shilpa
   (d) Cannot be determined

65. What is the position of Gowtham with respect to Gopi?
   (a) Immediately to the left
   (b) Second to the left
   (c) Third to the right
   (d) Immediately to the right
   (e) Second to the right

DIRECTIONS(66-70): Study the following information carefully and answer the questions given below:

Six friends - Arun, Sathish, Yogesh, Ganesh, Peter and Hemanth are studying six different specialisations of engineering which are - metallurgy,telecommunication, software, mechanical, electrical and hardware notnecessarily in the same order. Each one likes a different sport - hockey, cricket,swimming, football, badminton and tennis again not in the same order.

Ganesh is not studying hardware Peter is studying software and likeshockey. Yogesh likes swimming and is not studying hardware. The one wholikes football is studying electrical. Hemanth is studying mechanical anddoes not like tennis. The one who likes badminton is studying telecommunication. Arun and Sathish do not like badminton. Arun doesnot like tennis.

66. Which specialisation is Sathish studying?
   (a) Metallurgy   (b) Mechanical
   (c) Hardware   (d) Electrical
   (e) None of these

67. Which sport does Arun like?
   (a) Football   (b) Cricket
   (c) Hockey   (d) Cannot be determined
   (d) None of these

68. Which of the following person-specialization combination is correct according to the given information?
   (a) Ganesh-Hardware   (b) Sathish-Electrical
   (c) Yogesh-Metallurgy   (d) Hemanth-Software
   (e) None is correct

69. If all six friends are asked to sit in a straight line,facing north, in an alphabetical order (according to their names), from left to right, then who will be to the immediate left of the one studying electrical?

(a) The one who likes badminton
(b) The one who is studying telecommunication
(c) The one who is studying hardware
(d) The one who likes hockey
(e) None of these

70. If all six friends are asked to sit in a straight line, facing north, in an alphabetical order (according to their names), from left to right, then which of the following combinations will represent the favourite sport ofthe immediate neighbours of Peter?
   (a) Badminton - Football   (b) Cricket-Tennis
   (c) Cricket-Football   (d) Tennis - Football
   (e) Cricket - Badminton

English Language

DIRECTIONS (71-77): Read the following passage carefully and answer the questions given below it. Certain words are printed in bold to help you locate them while answering some of the questions.

Globalization is the objective trend of economic development in the world today, featured by free flow and optimized allocation of capital, technology, information and service in the global context. It is the inevitable result of the development of productive forces and advances of science and technology, especially the revolution of information technology since the 1980s and 1990s.

The influence of globalization on countries at different stages of development is entirely different. The "dividends" derived from globalization are not fairly distributed. The developed countries have apparent advantages in capital, technology, human resources and administrative expertise and in setting the "rules of the game". They are usually the biggest beneficiaries of globalization. The developing countries on the other hand are on the whole in an unfavorably position. Developing countries can obtain some foreign investment, advanced technologies and management expertise, but at the same time they are the most vulnerable to the negative impacts of globalization and lack the ability to effectively fend off and reduce the risks and pitfalls that come along with globalization. In the 1990s, especially in recent years, the gap between the North and the South has further widened. The economic sovereignty and economic security of the developing countries are confronted with enormous pressure and stern challenges. Some least-developed countries are even on the brink of being marginalized by globalization. Therefore, in participation of globalization, developing countries should always be on alert and try by all means to exploit the advantages and avoid all kinds of risk and harm.

In the past 20-odd years, China has maintained an annual growth rate of over 9.3% on average. China is now the 6th largest economy and the 5th largest trading nation in the world. More than 200 million people have been lifted out of poverty. The above accomplishments were achieved against the

backdrop of a volatile international situation. The reason why China was so successful in such a short period of time and in a constantly changing international environment is because China has found its own road of development i.e, to base what we do on the realities of China while sticking to the basic system of socialism, reforms should be carried out to solve the problems of incompatibility between the productive forces and the relations of production, and between economic base and the superstructure, so as to achieve self-perfection of socialism. Every country is different from the other.

It opens not only to developed countries, but also to developing countries, not only in economic field, but also in all areas of social development. At the same time, it is not a blind opening, but a self-conscious one, not a disorganized opening but a systematic one. China's opening proceeds and deepens in a gradual and step by step fashion. It started from the 4 special economic zones, to coastal cities, then to capital cities of inland provinces and now it has reached an unprecedented stage of all-round opening demonstrated by China's accession to the World Trade Organization. During its opening-up, China paid special attention to give full play to its comparative advantages to actively conduct international cooperation and competition. For instance, China has fully exploited its advantages of low cost of labour to attract foreign investment and technology to push economic development and better efficiency and quality of economic growth. These measures have brought the Chinese economy increasingly integrated with the world economy.

China has learnt many lessons and accumulated rich experiences in dealing with globalisation from its practice of reform and opening-up. To adopt opening-up policy. It opens not only to developed countries, but also to developing countries, not only in economic field, but also in all areas of social development. At the same time, it is not a blind opening, but a self-conscious one, not a disorganized opening but a systematic one. China's opening proceeds and deepens in a gradual and step by step fashion. It started from the 4 special economic zones, to coastal cities, then to capital cities of inland provinces and now it has reached an unprecedented stage of all-round opening demonstrated by China's accession to the World Trade Organization. During its opening-up, China paid special attention to give full play to its comparative advantages to actively conduct international cooperation and competition.

China's participation in Globalization is by no means a one-way street. When the world economic growth remains weak, China's economy is one of the few bright spots. As World Bank Report on Global Development Finance 2003 published in early April pointed out that China's fast growth "helped to drive the recovery in East Asia. Together with policy stimulus in other countries, China's performance lifted the region to growth of 6.7 % in 2002, up from 5.5% in 2001.China has also provided the world with the largest rising market. When more than 1.25 billion people become well-off, the demand on everything will be enormous. Just to give you an example, in the coming 10 years alone, China will import US$ 2 trillion of goods from the outside world. It goes without saying that we are also facing many challenges. For instance, with the accession to the WTO, China is faced with growing pressure from international competition. China's enterprises have to cope with fiercer competition not only at international market, but at home market as well. Nevertheless, opening the country to the outside world is China's basic and long-term state policy. China is committed to opening still wider to the outside world in an all-directional and multi-tiered way, with an even more active approach.

71. Why the "dividends" derived from globalization are not fairly distributed?
    (a) Apprehension in embracing and seizing the opportunities presented by globalization
    (b) Failing to adopt reforms to keep up with the steps of the changing world.
    (c) Political disadvantage due to inactivity in the developing countries.
    (d) Due to the lack of a just and equitable international economic order
    (e) None of these.

72. What reason author has given for China's achievement in such a short span of time?
    (a) Signficant modifications in the basic system of socialism.
    (b) Framing their models on Chinese characteristics rather than relying on plagiarism.
    (c) As they gave much more impetus on advancement in technology, human resources and administrative expertise
    (d) Their responsible approach as they remained vigilant against various risks, especially financial risks.
    (e) None of these

73. Which of the following is the most suitable term for the nature of Chinese opening to the outside world?
    (a) Progressive   (b) Self conscious
    (c) Comprehensive   (d) Discerning
    (e) Selective

74. How according to author China is contributing to World Economy?
    (a) By giving the road development to other developing countries so that they can follow the same path.
    (b) By providing a huge market to the World to supply the needs of billion uplifted Chinese population.
    (c) By new advancements in technology and human resources.
    (d) Focusing their attention to conduct international cooperation and competition.
    (e) None of these.

75. Which of the following statement(s) is/ are true in context of the passage?
    (i) Developing countries are raising their concern over China's commitment to even more active approach towards opening to World.
    (ii) Developing countries are usually the most active propellers of globalization.
    (iii) China's rise is a threat for the developing countries like America.