

## PART - I : GENERAL INTELLIGENCE

**Directions (1-9) :** In each of the following questions, select the related letter/word/number from the given alternatives :

1. 8 : 9 :: 56 : ?  
(a) 90 (b) 73  
(c) 72 (d) 89
2. ACEG : ZXVT :: BDFH : ?  
(a) YVSP (b) XZLO  
(c) YUQM (d) YWUS
3. BCFG : HILM :: NORQ : ?  
(a) TXUW (b) TUXW  
(c) TVWX (d) TXWU
4. Affluent : Opulent :: Flourish : ?  
(a) Prosper (b) Flatter  
(c) Comprise (d) Outflow
5. 25 : 37 :: 49 : ?  
(a) 56 (b) 60  
(c) 65 (d) 41
6. ABCD : ZYXW :: EFGH : ?  
(a) VUTS (b) EUTS  
(c) POTS (d) UOTS
7. 7 : 32 :: 28 : ?  
(a) 128 (b) 126  
(c) 136 (d) 116
8. Gulp : Drink :: Rush : ?  
(a) Jump (b) Hop  
(c) Go (d) Run
9. Joy : Delight :: Gloomy : ?  
(a) Silent (b) Dull  
(c) Vague (d) Plain

**Directions (10-16) :** Find the odd number/letters/ number pair from the given alternatives.

10. (a) Pathology (b) Geology  
(c) Cardiology (d) Radiology

11. (a) Rivulet (b) Stream  
(c) River (d) Pond
12. (a) Konark (b) Madurai  
(c) Dilwara (d) Ellora
13. (a) RTW (b) QOM  
(c) IKG (d) IKM
14. (a) EFH (b) OPQ  
(c) BCT (d) JI
15. (a) DH (b) FJ  
(c) IJK (d) PR
16. (a) 24 (b) 49  
(c) 80 (d) 15

**Directions (17-21) :** In each of the following questions, find the odd letters/word pair from the given alternatives.

17. (a) Confluence  
(b) Concourse  
(c) Radiation  
(d) Concentration
18. (a) cccgggkkk  
(b) kkkoooss  
(c) tttxxxbbb  
(d) mmmqqttt
19. (a) Freedom at Midnight and Jawahar Lal Nehru  
(b) Geetanjali and Ravindranath Tagore  
(c) Godan and Munshi Premchand  
(d) Bhagwat Gita and Ved Vyas
20. (a) Dog (b) Cow  
(c) Horse (d) Ox
21. (a) 532 (b) 761  
(c) 572 (d) 963

22. Mrs. Susheela celebrated her wedding anniversary on Tuesday, 30th September 1997. When will she celebrate her next wedding anniversary on the same day ?  
(a) 30 September 2003  
(b) 30 September 2004  
(c) 30 September 2002  
(d) 30 October 2003
23. A clock gains five minutes every hour. What will be the angle traversed by the second hand in one minute ?  
(a)  $360^\circ$  (b)  $360.5^\circ$   
(c)  $390^\circ$  (d)  $380^\circ$
24. Sudha travels 8 km to the South. Then she turns to the right and walks 4 km. Then again she turns to her right and moves 8 km forward. How many km away is she from the starting point ?  
(a) 7 (b) 6  
(c) 4 (d) 8
25. A man started walking West. He turned right, then right again and finally turned left. Towards which direction was he walking now ?  
(a) North (b) South  
(c) West (d) East
26. Some equations are solved on the basis of a certain system. Find the correct answer for the unsolved equation on that basis.

If  $324 \times 289 = 35$ ,  $441 \times 484 = 43$ ,  $625 \times 400 = 45$ , find the value of  $256 \times 729$ .

- (a) 33 (b) 35  
(c) 43 (d) 34

27. If MEKLF is coded as 91782 and LLLJK as 88867, then how can IGHEB be coded ?

- (a) 97854 (b) 64521  
(c) 53410 (d) 75632

28. Two statements are given below followed by four alternative inferences. Select the one which is most appropriate.

**Statements :**

- (i) All radios sold in that shop are of high standard.  
(ii) Some of Murphy radios are sold in that shop.

**Inferences :**

- All radios of high standard are manufactured by Murphy company.
- Some of the Murphy radios are of high standard.
- None of the Murphy radios is of high standard.
- Some of the Murphy radios of high standard are sold in that shop.

- (a) 1 and 2 inferences only  
(b) 2 and 4 inferences only  
(c) 1 and 3 inferences only  
(d) 1 and 4 inferences only

**Directions (29-30) :** Select the missing number from the given responses :

29.

7	3	2
4	9	6
2	1	5
69	91	?

- (a) 58 (b) 51  
(c) 65 (d) 64

30.

?	8
216	64

- (a) 343 (b) 512  
(c) 729 (d) 1000

31. The population of rats is increasing year after year in a village. Find out the missing population from the following information :

Years:	1990	1991	1992	1993	1994	1995
Population :	4	8	16	?	44	64

- (a) 22 (b) 32  
(c) 28 (d) 34

32. If '-' stands for division, '×' for multiplication, '+' for subtraction and '×' for addition, then which one of the following equations is correct ?

- (a)  $19 + 5 - 4 \times 2 + 4 = 11$   
(b)  $19 \times 5 - 4 + 2 + 4 = 16$   
(c)  $19 + 5 + 4 - 2 \times 4 = 13$   
(d)  $19 + 5 + 4 + 2 + 4 = 20$

33. Which one of the given responses would be a meaningful order of the following ?

1. Sentence  
3. Chapter  
5. Paragraph  
2. Word  
4. Phrase

- (a) 4, 3, 1, 2, 5  
(b) 2, 3, 5, 4, 1  
(c) 2, 5, 1, 4, 3  
(d) 1, 3, 2, 4, 5

34. Arrange the following words as per order in the dictionary :

1. Inhabit  
3. Inherit  
5. Infatuation  
2. Ingenious  
4. Influence

- (a) 1, 2, 3, 4, 5  
(b) 5, 4, 1, 2, 3  
(c) 4, 5, 2, 1, 3  
(d) 5, 4, 2, 1, 3

35. Which one set of letters when sequentially places at the gaps in the given letter series shall complete it ?

... ab ... b ... aba ... abab

- (a) abbaa (b) bbaab  
(c) abaab (d) aaaba

36. In a row of trees, a tree is 7<sup>th</sup> from left end and 14<sup>th</sup> from the right end. How many trees are there in the row ?

- (a) 18 (b) 19  
(c) 20 (d) 21

37. Shan is 55 years old, Sathian is 5 years junior to Shan and 6 years senior to Balan. The youngest brother of Balan is Devan and he is 7 years junior to him. So what is the age difference between Devan and Shan ?

- (a) 18 years (b) 15 years  
(c) 13 years (d) 7 years

38. Two statements are given followed by four inferences. Select the alternative which is most appropriate.

**Statements :**

- I. India is becoming industrialised.  
II. Pollution is a problem associated with industrialisation.

**Inferences :**

- I. All industrial centres are polluted.  
II. India is polluted.  
III. Polluted nations are industrialised.  
IV. India may become polluted.  
(a) All are appropriate  
(b) None is appropriate  
(c) Only IV is appropriate  
(d) Only II is appropriate

39. From the given alternative words, select the word which can be formed using the letters of the given word :

DETERMINATION

- (a) DECLARATION (b) NATIONAL  
(c) TERMINATED (d) DEVIATION

40. If in a certain code HYDROGEN is written as JCIZYSSD, then how can ANTIMONY be written in that code ?

- (a) CPVKOQPA (b) CRZQWABO  
(c) ERXMQSRC (d) GTZOSUTE

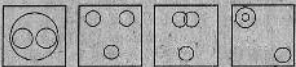
41. If DELHI is coded as 73541 and CALCUTTA as 82589662, then how can CALCICUT be coded ?

- (a) 5279431 (b) 5978013  
(c) 8251896 (d) 8543691

42. How many rectangles are there in the given diagram ?

- (a) 4 (b) 7 (c) 9 (d) 18

43. Which of the following diagrams represents the relationship among Sun, Moon and Star ?



44. Some equations have been solved on the basis of a certain system. Find the correct answer for the unsolved equation on that basis.

If  $9 * 7 = 32$ ,  $13 * 7 = 120$ ,  $17 * 9 = 208$ , then  $19 * 11 = ?$

- (a) 150 (b) 180  
(c) 210 (d) 240

45. Forecast the Growth Rate for the year 1995 from the following data :

Year	1990	1991	1992	1993	1994	1995
Growth Rate →	3.5	3.7	4.1	4.9	6.5	?

- (a) 7.8 (b) 8.6  
(c) 9.7 (d) 9.9

46. If '+' stands for '+', '\*' stands for '×', '-' for '-' and '÷' for '÷', which one of the following equations is correct?

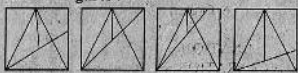
- (a)  $30 - 6 + 5 \times 4 + 2 = 27$   
(b)  $30 + 6 - 5 + 4 \times 2 = 30$   
(c)  $30 \times 6 + 5 - 4 + 2 = 32$   
(d)  $30 \div 6 \times 5 + 4 - 2 = 40$

47. From the given answer figures, select the one in which the questions figure is hidden/embedded.

Question Figure :



Answer Figures :



- (a) (b) (c) (d)

48. If a mirror is placed on the line MN, then which of the answer figures is the correct image of the given questions figure ?

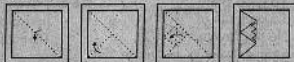


Answer Figures :

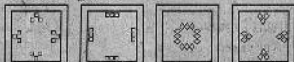


49. A piece of paper is folded and cut as shown below in the questions figures. From the given answer figures, indicate how it will appear when opened.

Question Figures :



Answer Figures :



- (a) (b) (c) (d)

**Direction :** A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in the two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, e.g., 'T' can be represented by 31, 76, etc. and 'S' can be represented by 14, 99, etc. Similarly, you have to identify the set for the word GOVERN.

50.

MATRIX I

	0	1	2	3	4
0	G	V	E	A	C
1	R	O	N	G	S
2	M	N	E	S	I
3	O	T	I	T	A
4	N	S	N	E	P

MATRIX II

	5	6	7	8	9
5	R	E	O	N	G
6	N	P	V	E	S
7	M	T	I	O	N
8	E	A	I	C	O
9	N	T	A	R	S

- (a) 59, 11, 56, 22, 44, 65  
(b) 00, 11, 56, 02, 10, 58  
(c) 59, 89, 67, 22, 98, 21  
(d) 13, 78, 01, 67, 55, 79

- Directions (51-57) :** A part of the sentence is **Bold**. Below are given alternatives to **Bold** part a, b and c which may improve the sentence. Choose the correct alternative. In case no improvement is needed, your answer is 'd'.
51. Prasad bowls faster than **Primal**. Is not it ?  
(a) is not Prasad  
(b) Does he  
(c) Does not he  
(d) No improvement
52. The authorities requested the spectators to **keep with** the track.  
(a) To keep on  
(b) To keep away  
(c) To keep out of  
(d) No improvement
53. Hearing **deformity** is one of the most common birth defects in India.  
(a) Improvement  
(b) Detection  
(c) Impairment  
(d) No improvement
54. He is **having** many friends here.  
(a) Have  
(b) Has  
(c) Will have  
(d) No improvement
55. The Commissions are set up to **ask** into the incidents.  
(a) Inquire  
(b) demand  
(c) look  
(d) No improvement
56. I am angry **upon** you.  
(a) Against  
(b) With  
(c) On  
(d) No improvement
57. Do not stay out late. Do **me** home soon.  
(a) Quickly  
(b) Fast  
(c) Early (d) No improvement
- Directions (58-63) :** Some of the sentences have errors and some are correct. Find out which part of a sentence has an error and mark the appropriate letter (a, b, c). If a

sentence is free from errors, blacken the rectangle corresponding to (d) in the Answer Sheet.

58. Drinking and driving (a) are (b) a major cause of accidents. (c) No error (d)
59. They are standing (a) at the gate of the auditorium (b) as there is no error (c) No error (d)
60. He is (a) having many (b) friends here. (c) No error (d)
61. Looking forward (a) to meeting you (b) in person. (c) No error (d)
62. Galileo proved that (a) the earth revolves (b) around the Sun. (c) No error (d)
63. I want (a) they you should (b) perform well. (c) No error (d)
- Directions (64-68) :** Sentences are given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four and indicate it in the Answer Sheet.
64. The department head insisted that he ..... absolute authority to regulate office work.  
(a) gives  
(b) is given  
(c) would give  
(d) would be given
65. Vinod, two of ..... brothers attend primary school, wishes to be a school teacher after his graduation from the University.  
(a) whom (b) them  
(c) whose (d) which
66. The deadline was nearby, so Mrs. Sweth had her students ..... their essays.  
(a) complete (b) to complete  
(c) completing (d) completed
67. Our new digital photo-print machine, the manual ..... is lost awaits to be set up properly.  
(a) of what (b) where  
(c) by whom (d) of which
68. Ramu is in the habit of revising just once, but Suresh never understands a subject ..... he revises it for atleast three times.

- (a) in case (b) thus  
(c) although (d) unless

**Directions (69-71) :** Choose the word opposite in meaning to the given word and mark in the Answer Sheet

69. ABANDON  
(a) Regain (b) Retain  
(c) Remain (d) Revive
70. HUMBLE  
(a) Bold (b) Powerful  
(c) Haughty (d) Strong

71. EXEMPTIONS  
(a) Generalisation  
(b) Liberalisation  
(c) Exclusions  
(d) Inclusions

**Directions (72-74) :** Out of the four alternatives, choose the one which best expresses the meaning of the given word and mark it in the Answer Sheet.

72. CONCEALED  
(a) Covered (b) Closed  
(c) Sealed (d) Hidden
73. RELISH  
(a) Realise (b) Taste  
(c) Enjoy (d) Reveal

74. ACUTE  
(a) Dull (b) Drowsy  
(c) Unpleasant (d) Sharp

**Directions (75-76) :** Group of four words are given. In each group one word is correctly spelt. Find the correctly spelt word and mark it in the Answer Sheet.

75. (a) aknowledge  
(b) acknowledge  
(c) acknolegde  
(d) acknolege
76. (a) posses (b) possess  
(c) posses (d) possus

**Directions (77-81) :** Four alternatives are given for the idiom/phrase **Bold** in the sentence. Choose the alternative which best expresses the meaning of the idiom/phrase and mark it in the Answer Sheet.

77. She was on the horns of a dilemma as she had either to leave her job or divorce her husband.  
(a) in nervous condition  
(b) in terrible mood  
(c) in difficult situation  
(d) in suspense

78. He died in harness.  
 (a) ceased to live  
 (b) died of a disease  
 (c) died for his country  
 (d) died while working
79. All his schemes ended in smoke.  
 (a) came to nothing  
 (b) got on fire  
 (c) burnt up  
 (d) attracted everybody
80. The young boy was kicking his heels in spite of his mother's stern warnings.  
 (a) playing happily  
 (b) kicking someone  
 (c) wasting time  
 (d) passing a gesture of disrespect

81. Fathima felt that she had been made a scapegoat for her son's incompetence.  
 (a) fool (b) witness  
 (c) fall guy (d) proxy

**Directions (82-85) :** Out of the four alternatives choose the one which can be substituted for the given words/ sentence.

82. A small room in a big house, hotel, ship etc. where glasses, dishes, spoons, food etc. are kept :  
 (a) Portico (b) Pantry  
 (c) Mezzanine (d) Kitchen
83. A foreigner who settles in a country :  
 (a) Immigrant (b) Emigrant  
 (c) Alien (d) Visitor
84. Doing something according to one's own free will :  
 (a) Wilfully (b) Obligingly  
 (c) Voluntarily (d) Compulsorily

85. Place that provides refuge :  
 (a) shelter (b) house  
 (c) country (d) asylum
- Directions (86-100) :** Some of the words have been left out. First read the passage over and try to understand what it is about. Then fill in the blanks with the help of the alternatives given. Mark your answer in the Answer Sheet.

**PASSAGE - I**

... (86)... and from the ... (87)... he finds, he is able to ... (88)... the daily lives of men and women who lived thousands of years ago. He makes a ... (89)... study of those things which those men and women left ... (90)... them. From the ... (91)... he judges the size of the animals their owners could kill, from their tools he learns what ... (92)... they had ministered and from their pots, needles and combs, he ... (93)... the domestic skills of their ... (94)... Thus is has been possible to write a generally ... (95)... account of human evolution going back some half a million years.

86. (a) rocks (b) history  
 (c) past (d) future
87. (a) witness (b) evidence  
 (c) knowledge (d) matters
88. (a) create (b) build-up  
 (c) rebuild (d) reconstruct
89. (a) scientific (b) historic  
 (c) realistic (d) research
90. (a) with (b) behind  
 (c) under (d) below

91. (a) weapons (b) hulls  
 (c) guns (d) targets
92. (a) industries (b) products  
 (c) crafts (d) knowledge
93. (a) values (b) assesses  
 (c) judges (d) criticises
94. (a) friends (b) animals  
 (c) women-folk (d) neighbours

95. (a) reliable  
 (b) dependable  
 (c) perfect  
 (d) dependable

**PASSAGE - II**

If you prefer mountains ... (96)... deserts, try Darjeeling, West Bengal's hill resort that ... (97)... at the foothills of the mighty Himalayas. ... (98)... while in Bengal, if your spirit of adventure gets the better of you, ... (99)... the ferry to the Sunderbans, the world's largest delta. But if these places do not attract you, there's Bhutan the quiet Himalayan Kingdom ... (100)... West Bengal.

96. (a) against (b) from  
 (c) with (d) to
97. (a) nestles (b) cuddles  
 (c) sleeps (d) rests
98. (a) so (b) and  
 (c) but (d) since
99. (a) ask (b) take  
 (c) pick (d) pay
100. (a) adjoining  
 (b) surrounding  
 (c) skirting  
 (d) bordering

**PART - III : QUANTITATIVE APTITUDE**

101. P and Q are two points observed from the top of a building  $10\sqrt{3}$  m high. If the angles of depression of the points are complementary and  $PQ = 20$  m, then the distance of P from the building is :  
 (a) 25 m (b) 45 m  
 (c) 30 m (d) 40 m
102. If A and B are complementary angles, then the value of  $\sin A \cos B + \cos A \sin B - \tan A \tan B + \sec^2 A - \cot^2 B$  is :  
 (a) 2 (b) 0  
 (c) 1 (d) -1

103. A, O, B are three points on a line segment and C is a point not lying on AOB, if  $\angle AOC = 40^\circ$  and OX, OY are the internal and external bisectors of  $\angle AOC$  respectively, then  $\angle BOY$  is :  
 (a)  $70^\circ$  (b)  $80^\circ$   
 (c)  $72^\circ$  (d)  $68^\circ$

104. If  $x \sin^3 \theta + y \cos^3 \theta = \sin \theta \cos \theta$  and  $x \sin \theta = y \cos \theta$ , then  $\theta, \sin \theta \neq 0, \cos \theta \neq 0$ , then  $x^2 + y^2$  is :

- (a)  $\frac{1}{\sqrt{2}}$  (b)  $\frac{1}{2}$   
 (c) 1 (d)  $\sqrt{2}$

105. In the following figure, O is the centre of the circle and XO is perpendicular to OY. If the area of the triangle XOY is 32, then the area of the circle is :



- (a)  $64\pi$  (b)  $256\pi$

- (c) 16° (d) 32°
106. The side  $BC$  of  $\triangle ABC$  is produced to  $D$ . If  $\angle ACD = 108^\circ$  and  $\angle B = \frac{1}{2} \angle A$ , then  $\angle A$  is :  
 (a)  $36^\circ$  (b)  $72^\circ$   
 (c)  $108^\circ$  (d)  $52^\circ$
107. Two circles of radii 4 cm and 9 cm respectively touch each other externally at a point and a common tangent is drawn from the points  $P$  and  $Q$  respectively. Then the area of a square with one side  $PQ$ , is :  
 (a) 97 sq cm (b) 194 sq cm  
 (c) 72 sq cm (d) 144 sq cm
108. Two tangents are drawn from a point  $P$  to circle at  $A$  and  $B$ .  $O$  is the centre of the circle. If  $\angle AOP = 60^\circ$ , then  $\angle APB$  is :  
 (a)  $120^\circ$  (b)  $90^\circ$   
 (c)  $60^\circ$  (d)  $30^\circ$
109. If each interior angle is double of each exterior angle of a regular polygon with  $n$  sides, the value of  $n$  is :  
 (a) 8 (b) 10  
 (c) 5 (d) 6
110. If  $x^4 + \frac{1}{x^4} = 23$ , then the value of  $\left(x - \frac{1}{x}\right)^2$  will be :  
 (a) 7 (b) -7  
 (c) -3 (d) 3
111. The value of  $\sqrt{[6 + \sqrt{6 + (6 + \dots \text{upto } \infty)}]}$  is equal to :  
 (a) 3 (b) 10  
 (c) 8 (d) 2
112. If  $x + \frac{1}{x} = 3$ , the value of  $x^5 + \frac{1}{x^5}$  is :  
 (a) 123 (b) 126  
 (c) 113 (d) 129
113. If  $\sqrt{6} \times \sqrt{15} = x\sqrt{10}$ , then the value of  $x$  is :  
 (a) 3 (b) +3 (c)  $\sqrt{3}$   
 (d)  $\sqrt{6}$
114. In the  $xy$ -coordinate system, if  $(a, b)$  and  $(a+3, b+k)$  are two points on the line defined by the equation  $x = 3y - 7$ , then  $k$  :
- (c)  $\frac{3}{4}$  (d)  $\frac{1}{3}$
- (c) 7 (d) 3
115. A reduction of 20% in the price of an apple enables a man to buy 10 apples more for ₹ 54/-. The reduced price of apple per dozen is :  
 (a) ₹ 4.32 (b) ₹ 12.96  
 (c) ₹ 10.80 (d) ₹ 14.40
116. Price of a commodity has increased by 20%. A consumer must consume what percent less of the commodity so as not to increase the expenditure ?  
 (a) 37% (b) 37.5%  
 (c) 40.5% (d) 60%
117. The cost of an apple is twice that of a banana and the cost of a banana is 25% less than that of a guava. If the cost of each type of fruit increase by 10%, then the percentage increase in cost of 4 bananas, 2 apples and 3 guavas is :  
 (a) 10% (b) 12%  
 (c) 16% (d) 18%
118. Walking  $\frac{6}{7}$ th of his usual speed, a man is 12 minutes too late. The usual time taken by him to cover that distance is :  
 (a) 1 hour  
 (b) 1 hour 12 minutes  
 (c) 1 hour 15 minutes  
 (d) 1 hour 20 minutes
119. If I walk at 5 km/hour, I miss a train by 7 minutes. If, however, I walk at 6 km/hour, I reach the station 5 minutes before the departure of the train. The distance (in km), between my house and the station is :  
 (a) 6 (b) 5  
 (c) 4 (d) 3
120. ₹ 800/- becomes ₹ 956/- in 3 years at a certain rate of simple interest. If the rate of interest is increased by 4%, what amount will ₹ 800/- become in 3 years ?  
 (a) ₹ 1020.80/- (b) ₹ 1025/-  
 (c) ₹ 1052/- (d) ₹ 1050/-
121. Simple interest on a certain sum is  $\frac{16}{25}$  of the sum. The rate percent if the rate per cent and time (in years) are equal, is :  
 (a) 6% (b) 8%  
 (c) 10% (d) 12%
122. If the difference between S.I. and C.I. for 2 years on a sum of money lent at 5% is ₹ 6/-, then the sum is :  
 (a) ₹ 2,200/- (b) ₹ 2,400/-  
 (c) ₹ 2,600/- (d) ₹ 2,000/-
123. A hemisphere and a cone have equal bases. If their heights are also equal, the ratio of their curved surface will be :  
 (a)  $1 : \sqrt{2}$  (b)  $\sqrt{2} : 1$   
 (c)  $2 : 1$  (d)  $1 : 2$
124. If the radius of a circle is increased by 50%, its area is increased by :  
 (a) 125% (b) 100%  
 (c) 75% (d) 50%
125. A and B working separately can do a piece of work in 9 and 12 days respectively. If the work for a day alternately with a beginning, the work would be completed in :  
 (a)  $10\frac{2}{3}$  days (b)  $10\frac{1}{2}$  days  
 (c)  $10\frac{1}{4}$  days (d)  $10\frac{3}{4}$  days
126. A and B together can do a work in 10 days. B and C together can do the same work in 6 days. A and C together can do the work in 12 days. Then A, B and C together can do the work in :  
 (a) 28 days (b) 14 days  
 (c)  $5\frac{5}{7}$  days (d)  $8\frac{2}{7}$  days
127. A does half as much work as B in threefourth of the time. If together they take 18 days to complete a work, how much time shall B take to do it alone ?  
 (a) 30 days (b) 35 days  
 (c) 40 days (d) 45 days
128. If a wire is bent into the shape of a square, then the area of the square so formed is 81 cm<sup>2</sup>. When the wire is rebent into a semicircular shape, then the area (in cm<sup>2</sup>) of the semicircle will be :  
 (Take  $\pi = \frac{22}{7}$ )  
 (a) 22 (b) 44  
 (c) 77 (d) 154
129. Marbles of diameter 1.4 cm are dropped into a cylindrical beaker containing some water and are

fully submerged. The diameter of the beaker is 7 cm. Find how many marbles have been dropped in it if the water rises by 5.6 cm :

- (a) 50  
(b) 150  
(c) 250  
(d) 350

130. Water is flowing at the rate of 3km/hr through a circular pipe of 20 cm internal diameter into a circular cistern of diameter 10m and depth 2 m. In how much time will the cistern be filled ?

- (a) 1 hr  
(b) 1 hr 40 mins  
(c) 1 hr 20 mins  
(d) 1 hr 10 mins

131. At each corner of a triangular field of sides 26 m, 28 m and 30 m, a cow is tethered by a rope of length 7 m. The area (in  $m^2$ ) unglazed by the cows is :

- (a) 336  
(b) 259  
(c) 154  
(d) 77

132. A shopkeeper allows 23% commission on his advertised price and still makes a profit of 10%. If he gains ₹ 56/- on one item, his advertised price of the item, in ₹ is :

- (a) 820  
(b) 780  
(c) 790  
(d) 800

133. The ratio of the ages of Ram and Rahim 10 years ago was 1 : 3. The ratio of their ages five years hence will be 2 : 3. Then the ratio of their present ages is :

- (a) 1 : 2  
(b) 3 : 5  
(c) 3 : 4  
(d) 2 : 5

134. The incomes of A, B and C are in the ratio 7 : 9 : 12 and their spending are in the ratio 8 : 9 : 15. If A saves 1/4 th of his income, then the saving of A, B and C are in the ratio of :

- (a) 69 : 56 : 48  
(b) 47 : 74 : 99  
(c) 37 : 72 : 49  
(d) 56 : 99 : 69

135. The average of 25 observations is 13. It was later found that an observation 73 was wrongly entered as 48. The new average is :

- (a) 12.6  
(b) 14  
(c) 15  
(d) 13.8

136. An article is marked 40% above the cost price and discount of 30% is allowed. What is the gain or loss percentage?

- (a) 10 % gain  
(b) 5% gain  
(c) 2% loss  
(d) 12% loss

137. A man bought oranges at the rate of 8 for ₹ 34/- and sold them at the rate of 12 for ₹ 57/-. How many oranges should be sold to earn a net profit of ₹ 45/- ?

- (a) ₹ 90/-  
(b) ₹ 100/-  
(c) ₹ 135/-  
(d) ₹ 150/-

138. A man sells two articles for ₹ 5,000 each neither losing nor gaining in the deal. If he sold of them at a gain of 25%, the other article is sold at a loss of :

- (a)  $15\frac{2}{3}\%$   
(b)  $16\frac{2}{3}\%$   
(c)  $17\frac{1}{3}\%$   
(d)  $18\frac{1}{3}\%$

139. By selling an article for ₹ 144/-, a person gained such that the percentage gain equals the cost price of the article. The cost price of the article is :

- (a) ₹ 90/-  
(b) ₹ 80/-  
(c) ₹ 75/-  
(d) ₹ 60/-

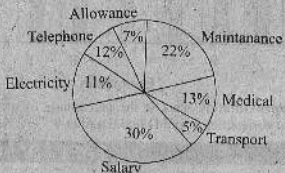
140. The average age of 11 players of a cricket team is increased by 2 months when two of them aged 18 years and 20 years are replaced by two new players. The average age of the new players is :

- (a) 19 years 1 month  
(b) 19 years 6 month  
(c) 19 years 5 month  
(d) 19 years 4 month

**Directions (141-145) :** Study the following graph carefully to answer these questions :

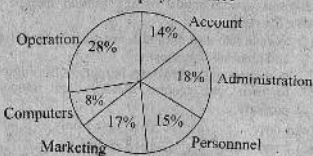
**Details about the distribution of employees and expenditure of an organization (Distributed proportionately across the departments)**

**Annual expenditure on different items Total Expenditure = ₹ 12 crores**



**Department wise distribution of employees**

**Total number of employees = 1200**



141. What was the total expenditure on Accounts department ?

- (a) ₹ 16.8 lakhs  
(b) ₹ 1680 lakhs  
(c) ₹ 18.6 millions  
(d) ₹ 16.8 millions

142. What was per employee expenditure on medical ?

- (a) ₹ 12,000/-  
(b) ₹ 13,000/-  
(c) ₹ 12,500/-  
(d) ₹ 13,500/-

143. What was the total expenditure on salary of employees in Marketing department ?

- (a) ₹ 6.12 lakhs  
(b) ₹ 61.2 millions  
(c) ₹ 6.12 millions  
(d) ₹ 176 lakhs

144. What was the amount spent on electricity ?

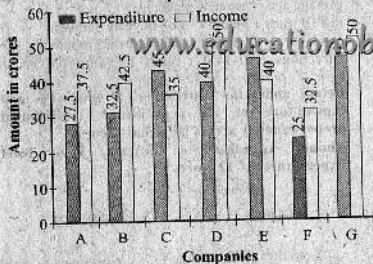
- (a) ₹ 132 millions  
(b) ₹ 13.2 millions  
(c) ₹ 126 millions  
(d) ₹ 12.6 lakhs

145. What was the expenditure on telephone for employees in computer department ?

- (a) ₹ 11.52 lakhs (b) ₹ 11.52 millions  
(c) ₹ 10.72 lakhs (d) ₹ 10.72 millions

**Directions (146-150) :** Study the following graph carefully and give answers.

**Account of income and expenditure (in crores) of seven companies in the year 2007.**



146. Approximately what is the percentage of profit/loss that companies C and D had together ?

- (a) 10% profit  
(b) 12% profit  
(c) 10% loss  
(d) No profit no loss

147. If the income of company A increased by 10% in year 2007 from year 2006 and profit earned in 2006 was 20%, what was its expenditure in 2006 ? (The value upto two decimal places in crores)

- (a) 36.36 (b) 32.32  
(c) 30.30 (d) 28.41

148. If the profit of company G in 2007 was 20% more than its expenditure in the year 2006 and the company earned a profit of 10% in 2006, what was the company's income in 2006 (in ₹ crore) ?

- (a) 37.5 (b) 41.25  
(c) 34.09 (d) Can't be determined

149. Which of the following companies had the highest percentage of profit/loss in 2007 ?

- (a) B (b) C  
(c) F (d) A

150. What is the **approximate** percentage of profit earned by all the companies together in 2007 ?

- (a) 11 (b) 11.5  
(c) 10.5 (d) 12

## PART - IV : GENERAL AWARENESS

151. Which of the following statements is/are correct ?

Article 26 of the Constitution of India states that subject to public order, morality and health, every religious denomination or any section thereof shall have the right

- to establish and maintain institutions for religious and charitable purposes.
- to manage its own affairs in matters of religion.
- to own and acquire movable and immovable property.

- (a) 1 only (b) 2 and 3 only  
(c) 1 and 3 only (d) 1, 2 and 3

152. Who among the following was *not* a party to the coalition that fought against the English in the Battle of Buxar ?

- (a) Mir Kasim  
(b) Mir Jafar  
(c) Shuja-ud-daulah  
(d) Shah Alam II

153. Who among the following had founded the Theosophical Society in the United States of America ?

- (a) Swami Dayanand Saraswati  
(b) Madame Blavatsky  
(c) Madame Camas  
(d) Lala Hardayal

154. In which one of the following cities, was the East India Association founded by Dadabhai Naoroji in 1866 ?

- (a) Paris (b) London  
(c) New York (d) Tokyo

155. In which one of the following Sessions was the Indian National Congress split into Moderates and Extremists ?

- (a) Nagpur (b) Allahabad  
(c) Surat (d) Calcutta

156. Who among the following was the first Governor General of India ?

- (a) Lord Amherst  
(b) Lord William Bentinck  
(c) Sir Charles Metcalfe  
(d) Robert Clive

157. Which one of the following has geographical position of 0° latitude and 0° longitude ?

- (a) In the South Atlantic Ocean  
(b) In the Mediterranean Sea  
(c) In Ghana, a West African country  
(d) At Greenwich Observatory in England

158. Arrange the following in chronological order :

- Third Carnatic War
  - First Burmese War
  - First Mysore War
  - Second Afghan War
- (a) 1-4-3-2 (b) 1-3-2-4  
(c) 2-4-1-3 (d) 3-1-2-4



159. After 1857, who of the following announced, at a Darbar at Allahabad, the assumption of the Government of India by the Sovereign of Great Britain ?  
 (a) Lord Canning (b) Sir John Lawrence  
 (c) Lord Mayo (d) Lord Northbrook
160. With which one of the following did the Civil Disobedience Movement in India commence ?  
 (a) The Dandi March  
 (b) No Tax campaign by Sardar Patel  
 (c) The unfurling of the national flag by Nehru  
 (d) Mahatma Gandhi's going on tour

161. Who among the following was the Governor-General of India immediately preceding Chakravarti Rajagopalachari ?  
 (a) The Marquess of Linlithgow  
 (b) Lord Mountbatten  
 (c) Lord Wavell  
 (d) Lord Chelmsford

162. Meghnad Saha is known for his contribution in which one of the following fields ?  
 (a) Physics  
 (b) Medical Science  
 (c) Environmental Science  
 (d) History

163. Which one of the following days is observed as the World Environment Day ?  
 (a) 28th February  
 (b) 4th March  
 (c) 5th June  
 (d) 16th September

164. Who of the following State Chief Ministers recently won United Nation's Public Service Award for his Mass Contact Programme ?  
 (a) Oommen Chandy (Kerala)  
 (b) J. Jayalalitha (Tamil Nadu)  
 (c) Prithviraj Chavan (Maharashtra)  
 (d) Narendra Modi (Gujarat)

165. Match the following :

List-I	List-II
A. M.F. Hussain	1. Tabla
B. Zakir Hussain	2. Classical dance
C. Ulhas Kashalkar	3. Painting
D. Yamini Krishnamurty	4. Vocal classical

- A B C D                      A B C D  
 (a) 3 1 4 2                    (b) 2 4 3 1  
 (c) 2 3 4 1                    (d) 3 4 1 2

166. Below is the list of persons who recently scaled the Mount Everest. Choose the correct match ?

- A. Raghav Joneja Youngest Indian (15 years)  
 B. Yuichiro Miura Japanese Oldest Man (80 years)  
 C. Arunima Sinha First Indian amputee (25 years)  
 D. Nunshi & Tashi Malik First Twins (21 years)  
 E. Samina Baig First Pakistani woman (22 years)  
 F. Anshu Jamshepa Only mother in the world to scale the peak twice in (10 days)  
 G. Raha Moharrak First Saudi woman and youngest Arab (25 years)
- (a) A, C and D  
 (b) B, D, E and C  
 (c) A, F, G and B  
 (d) All of above

167. In which one of the following places is the Indira Gandhi Centre for Atomic Research located ?  
 (a) Thiruvananthapuram  
 (b) Sriharikota  
 (c) Kalpakkam  
 (d) Trombay

168. Match the following :

List-I	List-II
A. Jeev Milkha Singh	1. Archery
B. Jayanta Talukdar	2. Cricket
C. N. Kunjarani Devi	3. Power lifting
D. Jhulan Goswami	4. Golf

- A B C D  
 (a) 4 1 3 2  
 (b) 4 3 1 2  
 (c) 2 3 1 4  
 (d) 2 1 3 4

169. Who among the following fast bowlers has taken a hat-trick in the very first over of a Test Cricket match ?  
 (a) Glenn McGrath (b) K. Pietersen  
 (c) C. Walsh (d) Irfan Pathan

170. In the final match of Indian Premier League 2013, Mumbai Indians defeated Chennai Super Kings to lift its First IPL Trophy. Who of the following was the captain of Mumbai Indians in the final match ?  
 (a) Sachin Tendulkar (b) Rohit Sharma  
 (c) Ricky Ponting (d) MS Dhoni

171. In which country of the world, the largest Buddhist temple is located ?  
 (a) Japan (b) Indonesia  
 (c) China (d) India

172. Which of the following rights was considered by Dr. Ambedkar as the 'Heart and Soul' of the Indian Constitution ?  
 (a) Right to Equality  
 (b) Right to Freedom of Religion  
 (c) Right to Freedom of Speech  
 (d) Right to Constitutional Remedies

173. Which of the following countries joined hands to develop new climate-resilient varieties of rice and wheat, two of the major crops in the world ?  
 (a) India, Russia, Bangladesh  
 (b) India, Russia, USA  
 (c) Russia, Japan, India  
 (d) India, USA, Australia
174. Which of the following gases is produced during lightning ?  
 (a) Nitrous Oxide  
 (b) Nitrogen Dioxide  
 (c) Nitric Oxide  
 (d) Nitrogen
175. From which language is the word 'alphabet' derived ?  
 (a) Greek  
 (b) French  
 (c) German  
 (d) Latin
176. Which of the following diseases usually spreads through Milk ?  
 (a) Plague  
 (b) Poliomyelitis  
 (c) Typhoid  
 (d) Diphtheria
177. Which of the following is the world's oldest capital city ?  
 (a) Canberra (b) Damascus  
 (c) Oslo (d) Accra
178. The National Police Academy at Hyderabad is named after which of the following personalities ?  
 (a) Jawaharlal Nehru  
 (b) Mahatma Gandhi  
 (c) Lal Bahadur Shastri  
 (d) Sardar Vallabh bhai Patel
179. NASA sent its unmanned spaceship ..... Mars Lender to Mars for searching water and many more chemicals.  
 (a) Eternity  
 (b) Phoenix  
 (c) Xavier  
 (d) Cassini
180. The Uttarakhand government is building a new Vidhan Sabha Bhawan (Legislative Assembly building) in ..... which is being developed as the summer capital of the state.  
 (a) Kashipur  
 (b) Gairsain  
 (c) Rishikesh  
 (d) Roorkee

181. For outstanding lifetime achievement in which one of the following areas is the Abel Prize, an international prize, awarded ?  
 (a) Ecology and Environment  
 (b) Medical Science  
 (c) Mathematics  
 (d) Biotechnology and Genetic Engineering
182. Which of the following banks recently tied up with Western Union Business Solutions to provide effective foreign exchange payments for SMEs or small and medium enterprises in India?  
 (a) Indusind Bank  
 (b) Axis Bank  
 (c) World Bank  
 (d) Asian Development Bank
183. Recently India and Singapore reaffirmed their strong and long-standing defence ties as they renewed a bilateral agreement for the conduct of joint army training and exercises. When was this agreement first signed ?  
 (a) 2009 (b) 2010  
 (c) 2008 (d) 2007
184. Which one of the following countries has its military base in the Indian Ocean island of Diego Garcia ?  
 (a) France (b) Russia  
 (c) U.K. (d) U.S.A.
185. Where is the Headquarters of NATO located ?  
 (a) Amsterdam (b) Brussels  
 (c) Berlin (d) Paris
186. Recently India signed a treaty for the extradition of runaways wanted for terrorism, transnational crimes, economic offences and other serious crimes which will shortly eliminate a safe refuge for criminals with which of the following countries ?  
 (a) Thailand (b) Kenya  
 (c) Iceland (d) Finland
187. The Reserve Bank of India recently penalised which of the following banks for violation of KYC norms and anti-money laundering guidelines ?  
 (a) Axis Bank  
 (b) ICICI Bank

- (d) All of these
188. Unique Identification Authority of India (UIDAI) recently inaugurated new Aadhaar-enabled services which would in turn help the residents of India in authenticating their identity anywhere and anytime via any digital platform. Which of the following is/are the new Aadhaar-enabled service/s ?  
 (a) e-KYC  
 (b) OTP (one time pin) authentication  
 (c) Iris authentication  
 (d) All of the above
189. Which one of the following pharmaceutical companies filed writ petitions against Government of India not others, to plead against the rejection of its patent application by a Patent Office in Chennai ?  
 (a) Aventis  
 (b) Cipla  
 (c) Glaxo-SmithKline  
 (d) Novartis AG
190. Which one of the following locations does not have a steel plant of SAIL ?  
 (a) Bhilai  
 (b) Bokaro  
 (c) Rourkela  
 (d) Visakhapatnam
191. The CTS-2010 standards made compulsory by the RBI from April 1, 2013 refer to which of the following ?  
 (a) Cheque Tracking System  
 (b) Cheque Truncation System  
 (c) Cheque Transaction System  
 (d) Cheque Testing System
192. Who of the following is an accomplished vocalist ?  
 (a) Monu Mazumdar  
 (b) Shiv Kumar Sharma  
 (c) Satish Gujral  
 (d) Dinanath Mishra
193. Which printer is very commonly used for desktop publishing ?  
 (a) Laser printer  
 (b) Inkjet printer  
 (c) Daisywheel printer  
 (d) Dot matrix printer

194. An output device that uses words or messages recorded on a magnetic medium to produce audio response is :

- (a) Magnetic tape
- (b) Voice response unit
- (c) Voice recognition unit
- (d) Voice band

195. Contaminated water can cause the following diseases except which one of the following?

- (a) Hepatitis A
- (b) Typhoid
- (c) Measles
- (d) Cholera

196. Which one of the following diseases is caused by bacteria and spreads through faecal matter by houseflies ?

- (a) Pertussis
- (b) Typhoid
- (c) Diphtheria
- (d) Chickenpox

197. Consider the following statements :

1. Ranjit Sagar Dam is on the river Beas.
2. Hirakud Dam is on the river Damodar.

3. The reservoir Gandhi Sagar is on the river Chambal.

Which of the statements given above is/are correct ?

- (a) 1 and 2
- (b) 3 only
- (c) 2 and 3
- (d) 1 and 3

198. Which one among the following states has more population than

- (a) Gujarat
- (b) Madhya Pradesh
- (c) Orissa
- (d) Rajasthan

199. Recently more than 65 Countries across the world signed the Arms Trade Treaty. Which of the following is /are the objective/s of Arms Trade Treaty ?

- A. Arms Trade Treaty is required for controlling the unrestrained flow of the arms as well as ammunition.
- B. This treaty is to set the standards for the purpose of cross-border transfers of

weapons ranging from attack helicopters to tanks.

C. The treaty would create requirements for all the countries to review the cross-border contracts in order to make sure that these weapons would not be used for the illegal purposes such as organised crimes, human rights abuses, violation of humanitarian law as well as terrorism.

- (a) Only A
- (b) Only B
- (c) Only C
- (d) All of these

200. During the reign of Alauddin Khilji, who were amils ?

- (a) Local landlords at village level
- (b) Government agents to collect land revenue
- (c) Khurasani and Multani traders of foodgrains
- (d) Banjaras who carried the food-grains from villages to towns