

GENERAL INTELLIGENCE

Directions (1-6) : In each of the following questions select the related letter/ word/number from the given alternatives.

1. Pig : Old :: Ink : ?

- (1) Jew (2) Kite
(3) Jew (4) Kite

2. BEAC : PHOTO :: PPMO : ?

- (1) BTPE (2) BTTPG
(3) KQPS (4) HJPMR

3. 48 : 94 :: 144 : ?

- (1) 220 (2) 208
(3) 180 (4) 221

4. BRICK : WALL :: SONG : ?

- (1) SONGY (2) CANT
(3) WASH (4) CITY

5. Jewellery : Gold :: Painture : ?

- (1) Wood (2) Paper
(3) Table (4) Tree

6. Author : Novel :: Chronographer

- : ?
(1) Make-up (2) Dance
(3) Music (4) Picture

Directions (7-12) : In each of the following questions, select the one which is different from the other three responses.

7. (1) Ink — Pen

- (2) Mail — Various classes
(3) Pistol — Gun
(4) Electricity — Television

8. (1) Short — Long

- (2) Man — Woman
(3) Light — Heavy
(4) Colour — Odour

9. (1) 720 (2) 144

- (3) 243 (4) 512

10. (1) Nose (2) Ear

- (3) Tongue (4) Teeth

Directions (13-15) : In each of the following questions, write one of the given responses would be a meaningful one of the following?

11. 1. Diagnose

- (2) Doctor
(3) Sick

4. Treatment

5. Recovery

(1) 2, 3, 5, 4, 5

(2) 4, 5, 1, 5, 5

(3) 1, 5, 5, 4, 5

(4) 5, 3, 1, 4, 5

12. 1. Destination

(2) ?

3. Boarding

4. Travel

5. Planning

(1) 4, 3, 1, 3, 5

(2) 5, 3, 3, 4, 1

(3) 1, 3, 3, 4, 5

(4) 5, 4, 5, 1, 2

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

1. Genate 2. Genes

3. Genes 4. Genic

5. Genial

(1) 5, 3, 2, 4, 1

(2) 5, 5, 3, 1, 4

(3) 4, 5, 3, 5, 1

(4) 1, 5, 4, 3, 5

Directions (14-17) : In each of the following questions, a series is given, with one term / number / letters missing. Choose the correct alternative from the given ones that will complete the series.

14. XZM, VWL, UMN, J.

(1) TROP (2) SQP

(3) RQPW (4) LKJ

15. QCD, TEF, LGH, P, RST.

(1) VUJ (2) TJI

(3) CBA (4) LKJ

16. Y, VII, XI, XVI, P, XII

(1) X (2) VIII

(3) IX (4) XIII

17. 2487 (2) 18 (3) 24

3204 (7) 3626

(1) 1088 (2) 1800

(3) 2312 (4) 1542

18. A person's present age is two-fifths of the age of his mother. After 10 years, he will be one-half of the age of his mother. How old is the mother at present?

(1) 45 years

(2) 48 years

(3) 30 years

(4) 36 years

19. It is more beautiful than B. It is not as beautiful as C. A is not as beautiful as B or C. Whose beauty is in the least degree?

(1) B (2) C

(3) A (4) D

20. T stands for +, + stands for x, x stands for - and * stands for ÷. Find out which one is correct.

(1) $40 \times 7 + 3 + 5 - 8 = 18$

(2) $40 \times 7 + 3 + 5 - 8 = 28$

(3) $40 \times 7 - 3 + 5 + 8 = 30$

(4) $40 - 7 + 3 + 5 + 8 = 54$

21. Rajah and Babu are twins. Babu's sister is Ramesh. Ramesh's husband is Rajan. Rajah's mother is Lakshmi. Lakshmi's husband is Rajesh. How is Rajah related to Rajan?

(1) Father-in-law

(2) Cousin

(3) Uncle

(4) Son-in-law

Directions (22-25) : In each of the following questions, from the given alternatives select the word which cannot be formed using the letters of the given word.

22. RESEMBLANCE

(1) RESEMBLE

(2) REBRACE

(3) RESEMBLE

(4) RESEMBLANCE

23. INVITORY

(1) INVITE (2) VITE

(3) VITE (4) VITE

24. FRESHMAN is written as 765890 and CHILD is coded as 12417. How can LEADERS be coded?

(1) 102007 (2) 122760

(3) 100076 (4) 122760

25. If rat is called dog, dog is called monkey, monkey is called lion, lion is called snake and snake is called elephant, which is named as a pet?

(1) Monkey (2) Lion

(3) Rat (4) Dog

26. If MADRAS is written as 2345678, how can MUMBAI be written in that code?

(1) 40 (2) 30 (3) 20 (4) 10

(5) 5 (6) 15 (7) 25 (8) 35

Directions (27-34) : In each of the following questions, select the missing number from the given responses.

27. 48, 52, 64, 77, 93, 75, 2

(1) 78 (2) 90
(3) 88 (4) 60

28. If 384 (148) 432,

then 574 (?) 642

(1) 280 (2) 304
(3) 286 (4) 258

29. 7, 8, 10, 15, 17, 2

(1) 22 (2) 21
(3) 23 (4) 20

30. 68, 72, 76, 87, 2, 124

(1) 131 (2) 89
(3) 93 (4) 86

31. 1, 8

? 27
(1) 26 (2) 81
(3) 41 (4) 84

32. Two cars leave the same place at the same time. One runs at 20 km/hr towards north and the other at 25 km/hr towards east. What will be the distance between them 1 hour after 2 hours of starting?

(1) 25 (2) 50
(3) 70 (4) 18

33. If police is called *thickener*, teacher is called *politician*, painter is called *doctor*, doctor is called *keeper* and keeper is called *warrior*, who will arrest the criminal?

(1) Teacher (2) Doctor
(3) Police (4) Lawyer

34. The number of students in a course increases every year in a college. Find out the number in 2018 from the following information:

Year	2012	2013	2014	2015	2016	2017
No. of students	80	33	28	56	50	7

(1) 70 (2) 75
(3) 55 (4) 65

35. Pratiksh travelled 8 km north-west, then turned left and travelled 4 km, then turned left and travelled 8 km. How far was Pratiksh from the starting point?

(1) 4 km (2) 4 km
(3) 32 km (4) 8 km

Directions (35-37) : In each of the following questions, two statements are given followed by two conclusions I, II and IV. You have to consider the two statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follow from the given statements.

35. **Statements :**

- All pencils are pens.
- Some pens are pencils.

Conclusions :

- Some pens are not pencils.
- All pens are pens.
- Some pens are pens.
- All pencils are pens.
- Only conclusion II follows.
- Only conclusion III follows.
- Only conclusion I follows.
- Only conclusion II follows.

37. **Statements :**

- Some books are blue colour.
- All four wheels are blue.

Conclusions :

- Some cars are blue.
- Some books are cars.
- Either conclusion I or II follows.
- Both conclusions I and II follow.
- Only conclusion I follows.
- Only conclusion II follows.

Directions (38-39) : In each of the following questions, if a mirror is placed on the line XY, then which of the answer figures is the correct image of the given question figure?

38. **Question Figure :**



Answer Figures :

- FRANKING
- FRANKING
- FRANKING
- FRANKING

39. **Question Figure :**



Answer Figures :

- 4 8
- 8 2
- 8 4
- 4 2

Answer Figures :

(1)	(2)	(3)	(4)

40. How many unskilled people are employed?



(1) 24 (2) 18
(3) 18 (4) 28

41. From the circles, find out the number of people who do not read any newspaper.



(1) 17% (2) 75
(3) 65 (4) 185

42. How many cubes are there in the figure?



(1) 30 (2) 8
(3) 28 (4) 32

43. Which answer figure will complete the pattern in the question figure?

Question Figure :



Answer Figures :

(1)	(2)	(3)	(4)

44. Find out the number of people who do not play any game.



- (A) 18 (B) 15
(C) 9 (D) 34

Directions (45–47): In each of the following questions, from the given answer figures, select the one in which the question figure is hidden or embedded.

45. Question Figure:



- Answer Figures:



46. Question Figure:



- Answer Figures:



47. Question Figure:



- Answer Figures:



48. A triangular sheet of paper has been folded and punched as shown in the following series of figures. How will it appear when opened?

Question Figure:



- Answer Figures:



49. If the following pattern is drawn on a transparent rectangular sheet and folded along the dotted line, how does it appear?
Question Figure:



- Answer Figures:



50. A number 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 row pattern given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 0 to 4. A star from these matrices can be represented best by its row and last by its column, e.g., 34 can be represented by 34, 23, etc. and P can be represented by 24, 34, etc. Similarly, you have to identify the set for the word STAR.

Matrix-I

0	S	T	S	0	4
0	P	O	M	S	R
1	R	R	P	O	M
2	O	M	S	R	P
3	R	P	O	M	S
4	M	S	R	P	O

Matrix-II

0	S	T	R	S
S	A	T	D	P
R	P	A	T	D
P	T	D	P	A
R	P	A	T	D
O	D	P	A	T

- (A) 14, 30, 28, 05
(B) 48, 58, 03, 08
(C) 02, 55, 05, 08
(D) 40, 77, 24, 08

ENGLISH LANGUAGE

Directions (51–55): In the following questions, some parts of the sentences have errors and some have none. Find out which part of a sentence has an error. The number of that part is your answer. If a sentence is free from error, then your answer is (A) i.e. No error.

51. I (A) 'wrote to school (B) at the same usual time (C) No error (D)
52. The company is using (A) 'better' tools (B) to get much (C) people (D) to buy its refrigerators. (E) No error (E)
53. The politician reminded them (A) to have a thoroughly cleaning of the minister (B) after much (C) (D) No error (D)
54. You should have used the money (A) for paying your debts (B) instead of buying a motor cycle. (C) No error (A)
55. My cousin sister (A) visited me (B) to her birthday party. (C) No error (A)
56. We should abide (A) to the process (B) that we make. (C) No error (A)

Directions (57–61): In the following questions, sentences are given with blanks to be filled in with an appropriate word. Four alternatives are suggested for each question. Choose the correct alternative out of the four as your answer.

57. Our rich culture inspires us to take _____ in our heritage.
(A) pride (B) proudly
(C) pride (D) proud

68. The car broke down and we _____ get a tool.

- (1) were to (2) are to
(3) had to (4) have to

69. He said I _____ see his car whenever I wanted.

- (1) could (2) can
(3) will (4) would

70. He will not work _____ he is unemployed.

- (1) if (2) if
(3) unless (4) unless

71. The teacher said disappointedly, "There is _____ in my class who can solve this problem."

- (1) anybody (2) somebody
(3) everybody (4) nobody

Directions (62 - 64) In the following questions, one of the four alternatives, choose the one which best expresses the meaning of the given word in your answer.

62. **Brisk**

- (1) Quick (2) Bright
(3) Fancied (4) Faster

63. **Deal**

- (1) Ming (2) Conceive
(3) Delect (4) Vexed
(5) Vexed

64. **Caravan**

- (1) Ignore (2) Overlook
(3) Forget (4) Forget

Directions (65-67) In the following questions, choose the word opposite in meaning to the given word as your answer.

65. **Inquisitive**

- (1) Invasive (2) Compassive
(3) Unsympathetic (4) Indifferent

66. **Elude**

- (1) Frustrate (2) Contract
(3) Disposed (4) Retain

67. **Pubescent**

- (1) Silenced (2) Disembodied
(3) Promiscuous (4) Unborn

Directions (68-72) In the following questions, four alternatives are given for the blank. Choose the alternative which best expresses the meaning of the blank. Choose as your answer.

68. As the eleven-hour _____

- (1) at a late stage (2) at the beginning
(3) at 11 o'clock (4) at an early stage

69. A shot in the dark _____

- (1) is sure to go out an advertisement
(2) is able to work very quickly
(3) is very violent
(4) is an attempt to guess something

70. In a nutshell _____

- (1) briefly (2) usually
(3) writing (4) level

71. From the bottom of my heart _____

- (1) sincerely (2) lowest position
(3) totally (4) wholly

72. For better or worse _____

- (1) sometimes (2) always
(3) in good times (4) in bad times

Directions (73-76) In the following questions, a part of the sentence is printed in **bold**. Below are given alternatives to the bold part at (1), (2), (3) which may improve the sentence. Choose the correct alternative. In case no improvement is needed, your answer is (4).

73. I **am working here since 2008.**

- (1) have been working here since
(2) have worked here from
(3) have been working here from
(4) No improvement

74. **Myself** Rajesh Mehta,

- (1) Myself (2) Myself is
(3) I am (4) No improvement

75. The qualities which have supported **Tata** and **given** him highest-rated service have been rare in Indian politics.

- (1) give (2) had given
(3) have given (4) No improvement

76. **How** you **take** your breakfast?

- (1) had (2) takes
(3) does (4) No improvement

77. **You** can't get good marks **unless** you **don't** work hard.

- (1) till you don't
(2) unless you
(3) work you don't
(4) No improvement

78. I **am having** tea **when**.

- (1) have had
(2) have
(3) had
(4) No improvement

79. They will **arrive** **today** **night**.

- (1) at night (2) tonight
(3) at night today (4) No improvement

Directions (80-82) In the following questions, one of the four alternatives, choose the one which can be substituted for the given words/sentences.

80. Group of people living together in the same locality

- (1) Neighbourhood
(2) Crowd
(3) Community
(4) Public

81. The height of an object above sea level

- (1) Altitude (2) Circumference
(3) Latitude (4) Longitude

82. Something that is difficult to believe

- (1) Inevitable
(2) Inevitable
(3) Suspicious
(4) Impossible

83. Government of the people, by the people and for the people

- (1) Plutocracy (2) Autocracy
(3) Autocracy (4) Democracy

Directions (83-85) In the following questions, there are four different words out of which one is correctly spelt. Find the correctly spelt word.

84. (1) Quarian (2) Quarian
(3) Quarianly (4) Quarianly
85. (1) Quarian (2) Quarian
(3) Quarianly (4) Quarianly

Directions (86-90) In the following questions, you have two brief passages with 10 questions in passage I and 5 questions in passage II. Read the passages carefully and fill in the blanks with suitable words out of the four alternatives given.

PASSAGE-1

Question Nos. 80-100

All forms of art have developed from religion (80) religious writings. This is also true (81) writing poetry developed from the (82) song. (83) of the early Greeks in literature (84) some (85) Latin came in contact with the (86) Latin came in contact with the (87) Greek. The novel has developed from the stories (88) about the Gods. A novel is a story that is based (89) real life.

- 80. (1) art (2) art
- (3) art (4) art
- 81. (1) in (2) in
- (3) in (4) in
- 82. (1) song (2) song
- (3) song (4) song
- 83. (1) writing (2) writing
- (3) writing (4) writing
- 84. (1) writing (2) writing
- (3) writing (4) writing
- 85. (1) writing (2) writing
- (3) writing (4) writing
- 86. (1) writing (2) writing
- (3) writing (4) writing
- 87. (1) writing (2) writing
- (3) writing (4) writing
- 88. (1) writing (2) writing
- (3) writing (4) writing
- 89. (1) writing (2) writing
- (3) writing (4) writing

PASSAGE-2

Question Nos. 90-100

Archie is a (90) nearly drunk. At day time, he usual becomes (91). There are springs here and there (92) which grows. (93) and (94) taste less (95) and make a real, steady (96) which the nature is clearly (97) from. They (98) the (99) and (100) the water for it to be the (101) of the water.

- 90. (1) man (2) man
- (3) man (4) man
- 91. (1) man (2) man
- (3) man (4) man
- 92. (1) man (2) man
- (3) man (4) man
- 93. (1) man (2) man
- (3) man (4) man
- 94. (1) man (2) man
- (3) man (4) man
- 95. (1) man (2) man
- (3) man (4) man
- 96. (1) man (2) man
- (3) man (4) man
- 97. (1) man (2) man
- (3) man (4) man
- 98. (1) man (2) man
- (3) man (4) man
- 99. (1) man (2) man
- (3) man (4) man
- 100. (1) man (2) man
- (3) man (4) man

QUANTITATIVE APTITUDE

- 101. In two types of stainless steel, the ratio of chromium and steel are 2 : 11 and 3 : 21 respectively. In what proportion should the two types be mixed so that the ratio of chromium to steel in the mixed type becomes 3 : 23 ?
 - (1) 2 : 3
 - (2) 3 : 4
 - (3) 4 : 5
 - (4) 5 : 6
- 102. A sum of ₹ 7,500 is divided among A, B, C in such a way that the shares of A and B are in the ratio 2 : 3 and those of B and C are in the ratio 4 : 5. The share of B is
 - (1) ₹ 2,400
 - (2) ₹ 2,800
 - (3) ₹ 3,000
 - (4) ₹ 3,200
- 103. Two marks ₹ 120 per kg and ₹ 150 per kg are mixed with a third variety in the ratio 1 : 1 : 2. If the mixture is worth ₹ 120 per kg, the price of the third variety per kg will be
 - (1) ₹ 75.0
 - (2) ₹ 100.0
 - (3) ₹ 150.0
 - (4) ₹ 175.0
- 104. In the afternoon, a student read 180 pages at the rate of 90 pages per hour. In the evening, when she was tired, she read 150 more pages at the rate of 40 pages per hour. What was her average rate of reading, in pages per hour ?
 - (1) 60
 - (2) 70
 - (3) 45
 - (4) 50
- 105. The weight of 24 students of a school is 42 kg. If the weight of the teacher be included, the mean will be 400 grams. Find the weight of the teacher in kg.
 - (1) 35
 - (2) 37
 - (3) 38
 - (4) 39
- 106. A cricketer has a mean score of 60 runs in 10 innings. Find out how many runs are to be scored in the eleventh innings to raise the mean score to 62 ?
 - (1) 67
 - (2) 68
 - (3) 69
 - (4) 71
- 107. Ankit purchases a watch and a wall clock for ₹ 200. He sells them making a profit of 20% on the watch and 25% on the wall clock. He earns a profit of ₹ 21.50. The difference between the original prices of the wall clock and the watch is equal to
 - (1) ₹ 40
 - (2) ₹ 50
 - (3) ₹ 60
 - (4) ₹ 70

- (1) ₹ 80
 - (2) ₹ 110
 - (3) ₹ 110
 - (4) ₹ 120
108. The wrong number in the series 2, 5, 28, 55, 126, 210, 294 is
 - (1) 28
 - (2) 55
 - (3) 126
 - (4) 294
109. Eight consecutive numbers are given. If the average of the two numbers that appear in the middle is 6, then the sum of the eight given numbers is
 - (1) 54
 - (2) 64
 - (3) 74
 - (4) 84
110. $11 \times 2 \times 3 \times 4 \times \dots \times n = 121$. Then $(11 - 12 - 13)$ is equal to
 - (1) 14
 - (2) 15
 - (3) 16
 - (4) 17
111. A and B together can do a piece of work in 12 days, while B alone can finish it in 20 days. A alone can finish the work in
 - (1) 20 days
 - (2) 25 days
 - (3) 30 days
 - (4) 35 days
112. A and B can do a job together in 12 days. A is 2 times as efficient as B. In how many days can B alone complete the work ?
 - (1) 18
 - (2) 20
 - (3) 24
 - (4) 30
113. The marked price is 20% higher than real price. A discount of 20% is given on the marked price. By this type of sale, there is
 - (1) 4% loss
 - (2) 2% loss
 - (3) no loss or gain
 - (4) 4% gain
114. A chair costs ₹ 7000 is available at successive discounts of 20% and 30%. The selling price of the chair is
 - (1) ₹ 280.25
 - (2) ₹ 290.25
 - (3) ₹ 290.50
 - (4) ₹ 290.75
115. A tradesman marks his goods at such a price that after allowing a discount of 10%, he makes a profit of 20%. What is the marked price of an article whose cost price is ₹ 170 ?
 - (1) ₹ 240
 - (2) ₹ 250
 - (3) ₹ 220
 - (4) ₹ 200
116. A prism has on the base a right-angled triangle whose sides are

117. Three circles of radii 4 cm, 8 cm and 8 cm touch each other pair wise externally. The area of the triangle formed by the line segments joining the centers of the three circles is

- (1) 64 $\sqrt{3}$ sq. cm
(2) 72 sq. cm
(3) 84 sq. cm
(4) 48 sq. cm

118. The radius of the base of a right circular cone is doubled. To keep the volume fixed, the height of the cone will be

- (1) one-fourth of the previous height
(2) $\frac{1}{\sqrt{2}}$ times of the previous height
(3) half of the previous height
(4) one-third of the previous height

119. The base of a cone and a cylinder have the same radius 4 cm, they have also the same height 8 cm. The ratio of the curved surfaces of the cylinder to that of the cone is

- (1) 4 : 3
(2) 5 : 3
(3) 4 : 3
(4) 5 : 3

120. The ratio of length of each equal side and the third side of an isosceles triangle is 2 : 4. If the area of the triangle is $18\sqrt{3}$ square unit, the third side is

- (1) 18 cm
(2) $9\sqrt{3}$ cm
(3) 9 cm
(4) $18\sqrt{3}$ cm

121. In a circle of radius 20 cm, an arc subtends an angle of 72° at the centre. The length of the arc is

- (1) 81.6 cm
(2) 26.4 cm
(3) 12.2 cm
(4) 18.8 cm

122. The x intercept of the graph of $T_x - 3y = 2$ is

- (1) $\frac{2}{3}$
(2) $\frac{2}{5}$
(3) $\frac{2}{7}$
(4) $\frac{2}{9}$

123. A customer repays a debt of 10% on his cost price. If in 6 months his debt was ₹700,000, what was the profit?

- (1) ₹85,000
(2) ₹86,000
(3) ₹91,000
(4) ₹97,000

124. A merchant fixed the selling price of his articles at ₹720 after adding 40% profit to the cost price. As the sale was very low at this price level, he decided to fix the selling price at 12% profit. Find the new selling price.

- (1) ₹ 500
(2) ₹ 660
(3) ₹ 400
(4) ₹ 480

125. A man spends 20% of his monthly salary. If his monthly expenditure is ₹ 8,000, then his monthly savings is

- (1) ₹ 1,500
(2) ₹ 1,600
(3) ₹ 1,800
(4) ₹ 2,000

126. From 2008 to 2009, the sales of a book decreased by 80%. If the sales in 2009 were the same as in 2005, by what percent did it increase from 2005 to 2010?

- (1) 120%
(2) 80%
(3) 40%
(4) 20%

127. The speed of a bus is 75 km/hr. The distance covered by the bus in 5 seconds is

- (1) 100 m
(2) 80 m
(3) 50 m
(4) 74.5 m

128. Two cars start together to walk a certain distance, one at 4 km/h and another at 3 km/h. The former arrives half an hour before the latter. Find the distance.

- (1) 6 km
(2) 9 km
(3) 7 km
(4) 8 km

129. A person invests ₹10,000 as fixed deposit at a bank at the rate of 10% per annum simple interest. But due to some pressing needs he has to withdraw the entire money after 3 years, by which the bank allowed him a lower rate of interest. If he gets ₹9,520 less than what he would have got at the end of 3 years, the rate of interest allowed by the bank is

- (1) $7\frac{1}{2}\%$
(2) $7\frac{2}{3}\%$
(3) $7\frac{3}{4}\%$
(4) $7\frac{1}{4}\%$

130. The compound interest on ₹50,000 at 1% per annum for a certain time is ₹4,247. The time is

- (1) 3 years
(2) 4 years
(3) 2 years
(4) 2.5 years

131. A man standing at a point P is watching the top of a tower, which makes an angle of elevation of 30° . The man walks some distance towards the tower and notices his angle of elevation of the top of the tower is 60° . If the height of the tower is 20 m, then the distance he moves is

- (1) 20 m
(2) $20\sqrt{3}$ m
(3) 30 m
(4) $20\sqrt{3}$ m

132. If $x = \sqrt{3} + \sqrt{2}$, then the value of

- $\left(x + \frac{1}{x}\right)$ is
(1) $2\sqrt{2}$
(2) 2
(3) $4\sqrt{2}$
(4) 3

133. If $p + q = 10$ and $pq = 5$, then

- the numerical value of $\frac{p}{q} + \frac{q}{p}$ will be
(1) 18
(2) 22
(3) 30
(4) 16

134. If $x = \frac{1}{a} + \sqrt{b}$, then the value of

- $x^2 - \frac{1}{x^2} + 2$ will be
(1) 1
(2) 2
(3) $2\sqrt{b}$
(4) 3

135. An equilateral triangle TQR is drawn inside a square PQRS. The value of the angle PYS, in degrees, is

- (1) 120
(2) 150
(3) 75
(4) 90

136. If a, b and c are the sides of a triangle and $a^2 + b^2 + c^2 = ab + bc + ca$, then the triangle is

- (1) right angled
(2) obtuse angled
(3) equilateral
(4) isosceles

187. The distance between the centers of two equal circles, each of radius 3 cm, is 10 cm. The length of a common tangent is largest in
- (1) 8 cm (2) 10 cm
(3) 4 cm (4) 9 cm

188. If the perimeter of a right-angled triangle is 64 cm and area of the triangle is 64 sq. cm, then the length of the hypotenuse is 32 cm
- (1) 20 (2) 50
(3) 7 (4) 34

189. In ΔABC , $\angle A = 90^\circ$, $\angle B = 60^\circ$. Find $\angle C$ in circular measure.
- (1) $\frac{2\pi}{3}$ (2) $\frac{2\pi}{4}$
(3) $\frac{\pi}{3}$ (4) $\frac{\pi}{2}$

190. If $\cos \theta = \sin \theta = 1$, the value of $\cos 2\theta + \sin 2\theta$ is
- (1) 1 (2) 0
(3) -1 (4) 2



- Directions (191 - 200)** : The following pie-chart shows the performance in an examination in a particular year for 200 students. Study the pie-chart and answer the questions.



191. The number of students who passed in second-division is more than those in first-division by
- (1) 100 (2) 108
(3) 111 (4) 113

192. The ratio of successful students to the failed students is
- (1) 3 : 10 (2) 2 : 7
(3) 9 : 1 (4) 9 : 7

193. The percentage of students who have failed in the examination is
- (1) 20% (2) 30%
(3) 30% (4) 30%

194. The total number of students who have passed in Good and Very good division is
- (1) 270 (2) 208
(3) 180 (4) None of these

195. The distance between the centers of two equal circles, each of radius 3 cm, is 10 cm. The length of a common tangent is largest in
- (1) 8 (2) 7
(3) 45 (4) 94

Directions (196 - 200) : The following is a horizontal bar diagram showing the accidents in which two-wheeler are involved with other objects. Study the diagram and answer the questions.



196. The difference in percentage between the accidents involving two-wheelers and one-wheelers and two-wheelers and other objects is respectively
- (1) 75, 200% (2) 77, 100%
(3) 24, 200% (4) 24, 100%

197. 60% of the accidents are involved due to
- (1) cars, buses, tanker lorry and pedestrians
(2) cars, tanker lorry, bicycles and stationary vehicles
(3) two-wheelers, cars, buses and stationary vehicles
(4) two-wheelers, cars, buses and tanker lorry

198. If the data of the bar diagram is represented by a pie-chart, and the angle of a sector of the pie-chart is 90°, then this sector represents the accidents involving
- (1) pedestrians (2) bicycles
(3) buses
(4) stationary vehicles

199. The percentage of accidents in which pedestrians and bicycles are involved is
- (1) 100 (2) 6
(3) 68 (4) 30.4

200. The percentage by which the accidents involving buses is less than the accidents involving tanker lorry is
- (1) 4 (2) 4
(3) 80 (4) 80

GENERAL AWARENESS

181. The Anti-Defection Law was passed by the Indian Parliament in the year
- (1) 1980 (2) 1988
(3) 1984 (4) 1985
182. Which was the main cause for starting of the Quit India Movement in 1942?
- (1) Government arrest among the people
(2) Report of Simon Commission
(3) Failure of the Crippen Mission
(4) British involvement in the World War II
183. Humanized to run away from India after he was defeated in the battle of
- (1) Panipat (2) Gogra
(3) Chausa (4) Ranwar
184. Who among the following was known as Indian Napoleon?
- (1) Samudragupta
(2) Chandragupta
(3) Chandragupta Maurya
(4) Chandragupta II
185. Which movement got the support both from Hindus and Muslims?
- (1) Non-Cooperation Movement
(2) Quit India Movement
(3) Champaran Satyagraha
(4) Anti-Poona Satyagraha
186. In which session of the Indian National Congress was 'Poona Scheme' adopted as its goal?
- (1) Bombay (2) Lucknow
(3) Calcutta (4) Lahore
187. Name the Governor-General who accepted the role of Marathi as the medium of instruction.
- (1) Lord Curzon
(2) Lord Ripon
(3) Lord Lytton
(4) Lord William Bentinck
188. Go down to the Sun is an
- (1) invention of Telescope
(2) invention
(3) film
(4) book
189. Typhoons are common in the
- (1) Arctic Ocean
(2) Bay of China and Japan
(3) Indian Gulf
(4) Indian Ocean

150. Which of the following is not a characteristic of Indian agriculture?
- (1) Multiplicity of crops
(2) Predominance of large farms
(3) Dependence on nature
(4) Low level of productivity
151. A 'Tissue culture' is an
- (1) tissue which is not produced by any production process
(2) tissue taken away from one person and given over to another
(3) Unrelated tissue
(4) Cultured tissue
152. World Trade Organization has replaced
- (1) UNCTAD (2) GATT
(3) WTO (4) UNCTAD
153. Finance Commission is appointed by the President of India after every
- (1) 5 years (2) 3 years
(3) 4 years (4) None of these
154. The stated and implied objectives of Constitution are reflected in the
- (1) Preamble
(2) Fundamental Duties
(3) Fundamental Rights
(4) Directive Principles of State Policy
155. Who is the highest Law Officer of a State?
- (1) Solicitor General
(2) Secretary General, Law Department
(3) Attorney-General
(4) Advocate General
156. If Parliament appoints a Commission for a specific purpose, it is known as
- (1) Joint Commission
(2) Permanent Commission
(3) Standing Commission
(4) Ad hoc Commission
157. The President of a High Court Judge is charged in the
- (1) Public Accounts of India
(2) Consolidated Fund of the State
(3) Public Accounts of the State
(4) Consolidated Fund of India
158. Conversion of solar energy into electrical energy is done by
- (1) Solar cell
(2) Diode
(3) Microprocessor
(4) Laser diode

- (5) Microprocessor
(6) Laser diode
159. A small gap is left at the joints of rails in a railway track to
- (1) avoid the tracks being distorted due to seasonal temperature variation
(2) avoid the heating of tracks to high temperature
(3) control the speed of train
(4) keep the rails equidistant
170. Which of the following criterion is used for any metal to be used as a cooking material?
- (1) More specific heat
(2) More thermal conductivity
(3) Less thermal conductivity
(4) Less electrical conductivity
171. The act of writing new data into register
- (1) is possible only when the register is an accumulator
(2) is possible only when the register is an address decr or instruction register
(3) depends on previous contents of the register
(4) is non-destructive to existing contents
172. Which one of the following is an optical disk?
- (1) Hard disk (2) Super disk
(3) Rom disk (4) Zip-disk
173. The term API refers to
- (1) Application Program Interface
(2) Application Program Interaction
(3) Applied Program Interaction
(4) Application Process Interface
174. Which of the following is used as a moderator in nuclear reactors?
- (1) Thorium
(2) Graphite
(3) Heavy water
(4) Paraffin
175. Sodium vapour lamps glow with yellow colour. This is due to
- (1) substitution of sodium to emit yellow colour
(2) the emission of excess energy absorbed by sodium atoms, in the yellow region of the spectrum
(3) the low ionisation energy of sodium
(4) its ability to absorb all other colours except yellow

176. Saline soil alkaline soils in India, are classified as
- (1) Kallar (2) Khadar
(3) Regur (4) Bangar
177. Sea water is saltier than rain water because
- (1) there is much more salt from earth and plants than in the sea
(2) sea beds have salt producing mines
(3) sea animals eat salt producing
(4) the sea around the sea is saltier
178. Which one of the following is not correctly matched?
- (1) Ethel Steel Plant — Maharashtra
(2) Bokan Steel Plant — Bihar
(3) Kharakda Steel Plant — Odisha
(4) Durgapur Steel Plant — West Bengal
179. The sugar present in DNA is
- (1) Pentose (2) Hexose
(3) Triose (4) Tetrose
180. A leafy green plant in the absence of
- (1) adequate light
(2) supply of oxygen
(3) suitable climate
(4) suitable temperature
181. Normally vertebral rats change the place, but which one of the following animals do not change the place?
- (1) Earthworm (2) Sponge
(3) Hydra (4) Leech
182. Production of substituted nitrogen compounds by microorganisms is known as
- (1) Composting
(2) Fermentation
(3) Anaerobic respiration
(4) Aerobic respiration
183. Dematology is the branch of science which deals with the study of
- (1) Teeth (2) Claws
(3) Hair (4) Aging
184. An embryo that does not have
- (1) placenta (2) chorion
(3) membranes (4) cells

183. Who has taken the back straight from the front?
- (1) Ananta Pillam
(2) Raj Mohan Chavla
(3) Rajul Das
(4) P.K. Ramiah
184. Miss/ Douglas Tale of the US Open, 2014 was won by
- (1) Rafael Nadal and Serena Williams
(2) Roger Federer and Venus Williams
(3) Brian Borsari and Sara Mirza
(4) Alexander Pan and Sara Mirza
185. Karmay National Park is situated in
- (1) Karnataka (2) Gujarat
(3) Assam (4) Orissa
186. As per 2011 Census data, which of the following statements is incorrect?
- (1) Bihar has the lowest literacy rate
(2) Women's enrollment rate among the literates
(3) The overall literacy rate has gone up
(4) Kerala has the highest literacy rate
187. Sarita Gupta was conferred the prestigious Pritzker Award for political reporting on August 11, 2014. She has been associated with the newspaper
- (1) Business Standard
(2) The Times of India
(3) The Hindu
(4) The Hindustan Times
188. Which of the following is not correct?
- (1) Jeev Milkha Singh (Football)
(2) Sarita Manu (Tennis)
(3) Sarita Nehru (Badminton)
(4) Vithanandhan Anand (Chess)
189. The Lok Sabha on August 15, 2014 passed the constitutional Amendment Bill to wrap the collegial system of appointing Supreme Court and High Court judges. It is the Constitution _____ Amendment Bill.
- (1) 121st (2) 122nd
(3) 123rd (4) 124th
190. Which of the following is the correct description of the term 'sea water' as used in context of the ocean?
- (1) Number of females per 1000 persons
(2) Number of females in a sample of 1000 persons
(3) Number of males per 1000 females
(4) Number of females per 1000 males
191. Phosphor'trioxide is chemically
- (1) Aluminium oxide
(2) Magnesium oxide
(3) Zinc oxide
(4) Calcium oxide
192. Which of the following agricultural practices have been primarily responsible for pollution of our water resources?
1. Use of bio-stock manure
2. Use of chemical fertilisers
3. Excessive use of chemical pesticides
4. Deforestation
- (1) 2 and 3 (2) 1, 2 and 4
(3) 1 and 3 (4) 1, 2 and 4
193. Which of the following woods has been found useful to check water pollution caused by industrial effluents?
- (1) Madhukas
(2) Madhukajri
(3) Water hyacinth
(4) Both (1) and (2)
194. Charcoal is used in water treatment as a/an
- (1) adsorbent (2) coagulant
(3) solvent (4) absorbent
195. Which of the following does not cause pollution?
- (1) Burning of petrol
(2) Use of solar energy
(3) Burning of rubber
(4) All of the above
196. The gas involved in Bhopal gas-tragedy was
- (1) Hydrogen sulphide
(2) Nitrogen dioxide
(3) Methyl chloride
(4) Methyl isocyanate
197. Nobel Prizes are awarded annually at
- (1) Stockholm
(2) Washington
(3) Geneva
(4) Oslo
198. The most populous and oil-rich country in Africa is
- (1) Kenya (2) Sudan
(3) Nigeria (4) Uganda