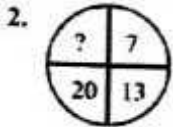


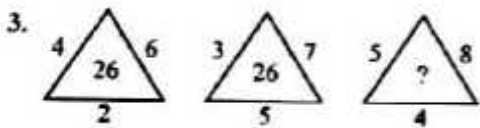
Part - 1 : General Intelligence

1. Out of the given alternatives select one which exactly matches with the mirror images of word.

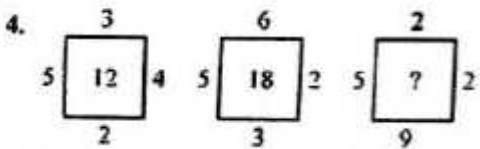
REASONING
 (A) GNINOSAEF (B) GNINUSAER
 (C) REASONING (D) GNINOSAEK



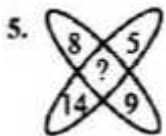
- A. 28
- B. 30
- C. 29
- D. 26



- A. 38
- B. 44
- C. 28
- D. 37



- A. 18
- B. 16
- C. 15
- D. 17



- A. 142
- B. 148
- C. 144

D. 146

Directions: In the following 9 questions, find the odd word / number / letters / number pair from the given alternatives:

6. Find the odd word.

- A. Spieen
- B. Pancreas
- C. Eye
- D. Liver

7. Find the odd word.

- A. Catalysis
- B. Condensation
- C. Conduction
- D. Coagulation

8. Find the odd word.

- A. Langur
- B. Whale
- C. Scarab
- D. Donkey

9. Find the odd letters.

- A. PRTV
- B. LNPR
- C. ACEG
- D. MNPR

10. Find the odd letters.

- A. GHJM
- B. PQSV
- C. BCEH
- D. TUWY

11. Find the odd letters.

- A. MKHD
- B. JHEA
- C. QNKH
- D. XVSO

12. Find the odd numbers pair.

- A. (2, 11)
- B. (3, 30)
- C. (7, 345)
- D. (5, 128)

13. Find the odd number.

- A. 210
- B. 529
- C. 289
- D. 196

14. Find the odd number.

- A. 121
- B. 144
- C. 189
- D. 169

Direction: In the following 9 questions, select the related word/letters/number from the given alternatives:

15. Velocity : Speed :: Veracity : ?

- A. Idea
- B. Falsehood
- C. Truth
- D. Principle

16. Iodine : Goitre :: ?

- A. Fat : Obesity
- B. Insulin : Diabetes
- C. Hormones : Haemophilia
- D. Mango : Anemia

17. Doctor : Medicine :: ? : Judgement

- A. Lawyer
- B. Court
- C. Policeman
- D. Judge

18. 134 : ACD :: 567 : ?

- A. DEF
- B. HIJ
- C. FGH

D. EFG

19. BONUS : ACNPMOTVRT :: BUCKET : ?

- A. ACMMOTURT
- B. ACTVBDJLDFSU
- C. ACMNMOTVRT
- D. SUOBN

20. ADFM : CFHO :: CFHO : ?

- A. EHQJ
- B. EHJQ
- C. EQHU
- D. EHJR

21. 196 : 1372 :: 256 : ?

- A. 2048
- B. 4048
- C. 3436
- D. 6344

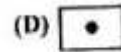
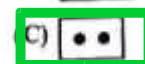
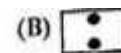
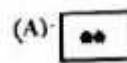
22. 4 : 24 :: 5 : ?

- A. 36
- B. 32
- C. 30
- D. 39

23. 9 : 243 :: 6 : ?

- A. 100
- B. 92
- C. 108
- D. 72

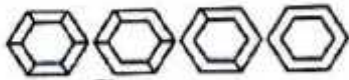
24. First a rectangular shape paper is taken, then it is folded from left to right, then cut a circle shape paper. When it will be opened which paper will appear ?



25. Find the pattern and select figure from alternatives which should come after the

question figures.

Question Figures:



Answer Figures:



Directions: In the following 2 questions, from the given alternatives words, select the word which cannot be formed using the letters of the given word:

26. Happiness

- A. Pine
- B. Spent**
- C. Spine
- D. Snipe

27. Environment

- A. Term
- B. Rein
- C. Rent
- D. Reign**

In the following 3 questions, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it ?

28. opo _ _ po _ ppo _ _ pppo _ op _ p

- A. opopooo
- B. opopooo**
- C. opopoop
- D. ooopppo

29. I _ _ ij _ I _ _ _ I

- A. jklikj
- B. klijkk
- C. jklijkl

D. jklkijk

30. ab _ _ _ b _ bbaa _

- A. babba
- B. abbab
- C. baaab**
- D. abaab

31. If the mirror image of a clock shows quarter past three, then what is the original time ?

- A. 9.15
- B. 8.15
- C. 3.15
- D. 8.45**

32. Sunder travelled 5 km towards North, then turned toward East and travelled 6 km, then turned South and travelled 5 km. How far is he from the starting point ?

- A. 11 km
- B. 5 km
- C. 10 km
- D. 6 km**

33. Four words are given. Arrange them in decreasing order of the number of vowels occurring in the word, each word being counted with multiplicity. Should there be a tie, use dictionary order.

1. Assassination 2. Rejuvenation 3. Mississippi 4. Acrimonious

- A. 4,1,3,2
- B. 4,2,1,3
- C. 4,3,1,2
- D. 4,1,2,3**

34. If + means x, - means ÷, x means ÷ and ÷ means -, then $9 \times 4 + 2 - 5 \times 10 \div 3 = ?$

- (A) 2**
- (B) $5 \frac{3}{14}$
- (C) 3
- (D) $2 \frac{1}{10}$

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

1. Mischance 2. Mischeivous 3. Mischief 4. Miscellaneous

- A. 4,2,1,3
- B. 4,1,3,2**
- C. 4,3,1,2
- D. 3,2,4,1

36. $P + Q$ implies that P is the brother of Q, $P - Q$ implies that P is the mother of Q, whereas $P \times Q$ implies P is the sister of Q. Which of the following implies M is the maternal uncle of R ?

- A. $M - R + K$
- B. $M + K \times Q$
- C. None of these
- D. $M + K - R$**

37. Select the figure which satisfies the same conditions of placement of the dots as in question figure.

Question Figure :



Answer Figures:

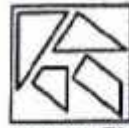
- (A)
- (B)**
- (C)
- (D)

38. Identify the diagram that best represents the relationship among classes given below.

- (A)
- (B)
- (C)
- (D)**

39. Identify the answer figure from which the pieces given in the question figure have been cut.

Question Figure:



Answer Figures:

- (A)
- (C)**
- (B)
- (D)

40. Two statements are given each followed by two conclusion I and II. You have to consider the statements to be true, even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusion, if any, follows from the given statements.

Statements :

1. Some bricks are sticks.
2. No stick is red.

Conclusions:

1. No brick is red.
2. Some bricks are not red.

- A. Only conclusion I follows.
- B. Only conclusion II follows.**
- C. Neither I nor II follows.
- D. Either I or II follow.

41. Which figures have equal frequency ?

7 8 9 7 6 5 3 4 2 8 9 7 2 4 5 9 2 9 6 4 7

- A. 8,6,5**
- B. 3,7,5
- C. 2,5,3
- D. 2,4,5

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

1. Plant 2. Flower 3. Sowing 4. Seedling

- A. 3,1,2,4
- B. 4,3,1,2
- C. 3,4,1,2
- D. 3,2,4,1

43. ELEPHANT is written as 57589143, LEAP can be written as

- A. 5618
- B. 7518
- C. 6712
- D. 6518

Directions: In the following 2 questions, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

44. 3, 11, 31, 57, 91, 133, _____

- A. 181
- B. 143
- C. 183
- D. 151

45. 8, 16, 48, 96, 288, 576, _____

- A. 1052
- B. 1728
- C. 2880
- D. 1152

46. If + means \times , - means \div , \div means +, \times means -, then $162 \times 52 - 26 \div 15 + 5$

- A. 247
- B. 235
- C. 875
- D. 215

47. 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 two matrix 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. I can be represented by 23, 32 etc. and A can be represented by 56, 55 etc. Similarly, you have to identify the set for the word RIM given in question.

Matrix/आव्यूह - I						Matrix/आव्यूह - II					
	0	1	2	3	4		5	6	7	8	9
0	I	M	W	S	Q	5	O	A	R	D	N
1	M	W	S	Q	I	6	A	R	D	N	O
2	W	S	Q	I	M	7	R	D	N	O	A
3	S	Q	I	M	W	8	D	N	O	A	R
4	Q	I	M	W	S	9	N	O	A	R	D

- A. 58, 43, 34
- B. 75, 14, 24
- C. 76, 41, 34
- D. 58, 43, 11

48. In a certain code TEACHER is written as ZYXDOYK, and RAIL as KXQM. How will be CHAIR written ?

- A. DOQXK
- B. DOKQX
- C. DOXQK
- D. DQOXK

49. Two statements are given. You have to answer considering the statement to be true. Even if they seem to be at variance from commonly known facts.

Statements :

1. James works in a factory
2. He gets a salary.

- A. James loves his work and his salary.
- B. James gets paid for his work.
- C. James loves his salary.
- D. James likes to work in a factory.

50. In a box there are 5 different black balls, 3

different white balls and 2 different red balls.
How many ways to select 2 balls but not both same colour ?

- A. 40
- B. 31**
- C. 30
- D. 25

Part - II : English Language

Directions: In the following Ten questions, in the following passage some of the words have been left out. Read the passage carefully and choose the correct answer to each question out of the four alternatives and fill in the blanks.

Passage: The first written number (i) is about 5000 years old and (ii) from the Sumerians in Mesopotamia. But man wanted to specify (iii) even much (iv) of the animals killed or reared. (v) the beginning , man counted using the fingers joints on (vi) hand. Even today young children are (vii) to count (viii) their fingers. It is known about the Stone Age man (ix) he used (x) by cutting notches in wood, bones and stones.

51. (iv)

- A. early
- B. earliest
- C. later
- D. earlier**

52. (vi)

- A. one
- B. each**
- C. every**
- D. our

53. (ii)

- A. came**
- B. coming

- C. comes
- D. is coming

54. (viii)

- A. by
- B. on
- C. through
- D. with**

55. (v)

- A. At**
- B. From
- C. On
- D. In

56. (iii)

- A. quantum
- B. quantities**
- C. quantitative
- D. qualities

57. (I)

- A. system**
- B. function
- C. organization
- D. practice

58. (vii)

- A. teaching
- B. teach
- C. teached
- D. taught**

59. (x)

- A. signs**
- B. marks
- C. tallies
- D. symbol

60. (ix)

- A. what
- B. how

- C. when
- D. that

Directions: In the following Four Questions, out of the four alternatives, choose the one which can be substituted for the given sentences and indicate it by blackening the appropriate circle [●] in the Answer sheet.

61. An author's handwritten or typed text, submitted for publication.

- A. Pamphlet
- B. Manuscript
- C. Papyrus
- D. Replica

62. With no particular order or plan.

- A. Hazard
- B. Hazadous
- C. Hopeless
- D. Haphazard

63. A position or an office with no work but high salary.

- A. Sinecure
- B. Tenure
- C. White collar job
- D. Monarchy

64. One who deals in furs.

- A. Tanner
- B. Furrier
- C. Lapidist
- D. Drover

Directions: In the following Four questions, four words are given in each question, out of which only one word is correctly spelt. Find the correctly spelt word and mark your answer in the Answer Sheet.

65. Find the correctly spelt word.

- A. Whimsecal
- B. Whimsicol

- C. Whimsical
- D. Whymysical

66. Find the correctly spelt word.

- A. Perseverance
- B. Persaverence
- C. Preserverence
- D. Perserverance

67. Find the correctly spelt word.

- A. Intercession
- B. Intercestion
- C. Intersession
- D. Intercesion

68. Find the correctly spelt word.

- A. Differtiasion
- B. Diferrentiation
- C. Diferentiation
- D. Differentiation

Directions: In the following Four questions, four alternatives are given for the Idiom/Phrase underlined. Choose the alternative which best expresses the meaning of the Idiom/Phrase and mark it in the Answer Sheet.

69. Back to square one

- A. To be able to count
- B. To complete a game
- C. To start again
- D. To reply a game of chess

70. As the crow flies

- A. In a monotonous way
- B. In a straight way
- C. In a criss-cross way
- D. In a circular way

71. If you are no spring chicken, you are

- A. inexperienced
- B. not young
- C. a dead chicken

D. not energetic.

72. To strike a chord

- A. To hit the wrong note
- B. To strum a guitar
- C. To be reminded of something familiar**
- D. To hit the chords forcefully

Directions: In the following Four questions, the first and the last part of sentence are numbered 1 and 6. The rest of sentence is split into four parts and named P, Q, R, and S, These four parts are not given in their proper order. Read the sentence and find out which of the four combinations is correct. Then find the correct answer and indicate it in the Answer Sheet.

73. 1. In his life time
P. and immense wealth
Q. Manpassant earned world-wide fame
R. untimely end to the brilliant
S. But unfortunately, insanity brought an
6. career of this great genius.

- A. QPSR**
- B. PQRS
- C. SPQR
- D. QRSP

74. 1. He had spent
P. to see him
Q. and I was now
R. accompanying him across the river
S. a fortnight with me
6. for his long railway journey home.

- A. PRQS
- B. SQRP**
- C. PSQR
- D. QSRP

75. 1. The history of India
P. human activity of Homo sapiens as long as
Q. 75,000 years ago or with
R. earlier hominids including Homo-erectus
S. begin with evidence of
6. from about 5,00,000 years ago.

- A. SPQR**
- B. PQRS
- C. SRQP
- D. QSPR

76. 1. In this modern word of consumerism
P. both for the young and old
Q. who can defeat consistently
R. with its onslaught of
S. tempting advertisements
6. the desire to buy new products ?

- A. RSPQ**
- B. RSQP
- C. QRSP
- D. PRSQ

Directions: In the following Four questions, choose the word opposite in meaning to the given word and mark it in the Answer Sheet.

77. Adversity

- A. Anger
- B. Humility
- C. Humbleness
- D. Prosperity**

78. Perceptive

- A. Unaware**
- B. Unconscious
- C. Indisreer
- D. Blunt

79. Dainty

- A. Harmful
- B. Clumsy**
- C. Dry
- D. Afraid

80. Ferocious

- A. Practical
- B. Reassuring
- C. Strong
- D. Gentle**

Directions: In the following Two questions, a sentence has been given in Active / Passive Voice. Out of the four alternative suggested, select the one which best expresses the same sentence in Passive / Active Voice and mark your answer in the Answer sheet.

81. Both his parents approved of his decision.

- A. His decision had been approved of.
- B. His parent's decision was approved of by him.
- C. His decision got approved by both his parents.
- D. His decision was approved by both his parents.

82. You must keep your promises.

- A. Your promises must kept by you.
- B. Your promises were kept by you.
- C. Your promises are kept.
- D. Your promises must be kept.

Directions: In the following Four questions, some parts of the sentences have errors and some are correct. Find out which part of a sentence has an error and blacken the circle [●] corresponding to the appropriate correct option. If a sentence is free from error, blacken the circle [●] corresponding to "No Error" in the Answer sheet.

83. Before every meal the head of the family would provoke God's blessings.

- A. Before every meal
- B. the head of the family
- C. No error
- D. would provoke God's blessings.

84. I have been invited to a party hosted by my cousin sister.

- A. I have been
- B. hosted by my cousin sister
- C. No error
- D. invited to a party

85. Dogs soon recognize the persons by whom they are kindly treated.

- A. the persons by whom
- B. No error
- C. they are kindly
- D. Dogs soon recognize treated.

86. He declared that he wore no man's mantle.

- A. He declared
- B. no man's mantle
- C. that he wore
- D. No error

Directions: In the following four question, a part of the sentence is underlined. Below are given alternatives to the underlined part which may improve the sentence. Choose the correct alternative. In case no improvement is needed blacken the circle [●] corresponding to "No Improvement" in the Answer Sheet.

87. His determination was not shook by what people said.

- A. was not shaken
- B. No improvement
- C. was not shaking
- D. was not shaken

88. I cannot barely wait for my birthday party.

- A. I barely wait
- B. No Improvement
- C. I barely cannot wait
- D. I can barely wait

89. The observatory building is situated in a remote corner of the zoo.

- A. No Improvement
- B. close
- C. distant
- D. far

90. If you would have sen him perform in the London Olympic Games, you would have been thrilled.

- A. Had you seen him
- B. No Improvement
- C. If you have had seen him perform
- D. Had you been seeing him perform

Directions: In the following Two questions, a sentence has been given in Direct/Indirect. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct and mark your answer in answer sheet.

91. "Hurrah ! Said the the girls, we have won the match by inning."

- A. The girls exclaimed happily that they has won the match by an inning.
- B. The girls exclaimed happily that they had won the match by an inning.
- C. The girls exclaimed happily that they have won the match by an inning.
- D. The girls exclaimed happily that they would have won the match by an inning.

92. The children said that they wanted to go on a picnic.

- A. The children said, "We want to go on a picnic."
- B. The children said, "We are wanting to go on a picnic."
- C. The children said, "We wanted to go on a picnic."
- D. The children said, "We will want to go on a picnic."

Directions: In the following Four Questions, out of the four alternatives, choose the one which best expresses the meaning of the given word and mark it in the Answer sheet.

93. Previous

- A. After
- B. Earliest
- C. Latest
- D. Former

94. Mayhem

- A. Excitement
- B. Jubilation
- C. Havoc
- D. Defeat

95. Rely

- A. Lean
- B. Trust
- C. Betray
- D. Depend

96. Cessation

- A. Start
- B. End
- C. Pause
- D. Resume

Directions: In the following Four Questions, sentences 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 by blackening the appropriate circle [●] in the Answer sheet.

97. Steve had always hoped that his father would ____ the property to him.

- A. bespoke
- B. disclaim
- C. bequeath
- D. beseech

98. I never _____ such a result.

- A. think of
- B. dreamt of
- C. dream of
- D. dreamed of

99. This ship is ____ Geneva.

- A. bound of
- B. destined to
- C. bound for
- D. bound to

100. If you _____ in your studies, you will get a first class.

- A. indulge
- B. persevere**
- C. adhere
- D. insist

Part - III : Quantitative Aptitude

101. The angle of elevation of the Sun when the length of the shadow of a pole is equal to its height, is

- A. 60°
- B. 30°
- C. 45°**
- D. 90°

102. If 3/4 of Rs 100 is x% larger than 3/4 % of Rs 100, then x is

- A. 99**
- B. 90
- C. 25
- D. 75

103. If $\left(x + \frac{1}{x}\right)^2 = 3$, then find the value of $x^{10} + x^{24} + x^{18} + x^{12} + x^6 + 1$

- A. -1
- B. 1
- C. 27
- D. 0**

104. The average monthly income of a family of 4 earning members was Rs. 6,250. One of the earning member died, thereby, the average became Rs. 6500. The monthly income (in rupees) of the deceased was

- A. 5,000
- B. 6,000
- C. 5,900

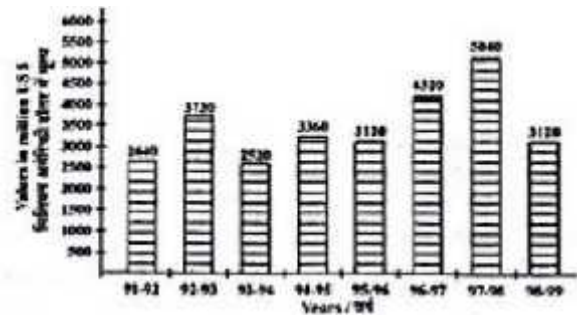
D. 5,500

105. Tushar borrowed a sum of Rs. 12,000 at 15% per annum from a money-lender on 13th January, 1987 and return the amount on 8th June 1987 to clear his debt. Then the amount paid by Tushar to the money-lender to clear his debt was

- A. Rs 11,394
- B. Rs 12,720**
- C. Rs 13,650
- D. Rs 15,330

Directions:

The bar graph shows the foreign exchange reserve of a country (in million US \$) from 1991-92 to 1998-99. Based on the bar graph answer the 5 questions.



106. For which year, the percent increase of foreign exchange reserves over the previous year is the highest?

- A. 1995-96
- B. 1998-99
- C. 1994-95
- D. 1992-93**

107. What was the percentage increase in the foreign exchange reserves in 1997-98 over 1993-94?

- A. 100%**
- B. 90%
- C. 110%
- D. 80%

108. The ratio of the number of years, in which the foreign exchange reserves are above the average reserves, to those in which the reserves are below the average is

- A. 3:7
- B. 4:7
- C. 5:3
- D. 3:5**

109. The foreign exchange reserves in 1997-98 was how many times that in 1994-95?

- A. 1.5**
- B. 2.6
- C. 2
- D. 3.5

110. The foreign exchange reserves in 1996-97 were approximately what percent of the average foreign exchange reserves over the period under review?

- A. 80%
- B. 125%**
- C. 120%
- D. 100%

111. A solid cuboid of dimensions 8 cm × 4 cm × 2 cm is melted and cast into identical cubes of edge 2 cm. Number of such identical cubes is

- A. 8**
- B. 4
- C. 10
- D. 16

112. A man walks a certain distance in certain time, if he had gone 3 km an hour faster, he would have taken 1 hour less than the scheduled time. If he had gone 2 km an hour slower, he would have been one hour longer on the road. The distance (in km) is

- A. 45
- B. 65
- C. 80
- D. 60**

113. The length of a rectangle is twice the

breadth. If area of the rectangle be 417.605 sq.m., then length is

- A. 29.08 m
- B. 29.80 m
- C. 28.90 m**
- D. 28.09 m

114. If a chair sold for Rs 600 at the profit of 20%, then the original price of the chair is

- A. Rs 580
- B. Rs 480
- C. Rs 540
- D. Rs 500**

115. The centres of three circles of equal radii, touching each other externally form a/an

- A. Right angle triangle
- B. Isosceles triangle
- C. Equilateral triangle**
- D. Scalene triangle

116. The value of $\frac{3\sqrt{7}}{\sqrt{5}+\sqrt{2}} - \frac{5\sqrt{5}}{\sqrt{2}+\sqrt{7}} + \frac{2\sqrt{2}}{\sqrt{7}+\sqrt{5}}$ is

- A. 1
- B. 0**
- C. $2\sqrt{3}$
- D. $\sqrt{7}$

117. How much percentage above the cost price should a shopkeeper mark his good so that after allowing a discount of 10%, he should gain 26%?

- A. 25%
- B. 140%
- C. 40%**
- D. 16%

118. 30% of the students in a class has mobile phones, 10% of the students who have mobile phones has a bluetooth facility. If the class has 200 students, how many have bluetooth facility?

- A. 2
- B. 6**
- C. 8
- D. 7

119. In ΔABC , O is the orthocentre and $\angle BOC = 80^\circ$. The measure of $\angle BAC$ is

- A. 120°
- B. 90°
- C. 100°**
- D. 80°

120. If $x : y = 3 : 5$ and $x - y = -2$, then the value of $x + y$ is

- A. 2
- B. 5
- C. 8**
- D. 3

121. Successive discount of 10%, 20% and 25% on the price of an article will reduce the price by

- A. 55%
- B. 45%
- C. 46%**
- D. 54%

122. A is a point on the x-axis with abscissa -8 and B is the point on the y-axis with ordinate 15. The length of AB is

- A. 19 unit
- B. 21 unit
- C. 17 unit**
- D. 23 unit

123. If $\frac{a}{b} = \frac{7}{9}, \frac{b}{c} = \frac{3}{5}$, then the value of $a : b : c$ is

- A. 7 : 9 : 5
- B. 21 : 35 : 45
- C. 7 : 9 : 15**

D. 7 : 3 : 15

124. If $\sin \theta = \frac{a}{b}$, then the value of $\sec \theta - \cos \theta$ is (where $0^\circ < \theta < 90^\circ$)

- | | |
|---|---|
| (A) $\frac{b^2}{a\sqrt{b^2 - a^2}}$ | (B) $\frac{\sqrt{b^2 + a^2}}{\sqrt{b^2 - a^2}}$ |
| (C) $\frac{a^2}{b\sqrt{b^2 - a^2}}$ | (D) $\frac{a}{b\sqrt{b^2 - a^2}}$ |

125. The expression $\sqrt{\frac{1 + \sin \theta}{1 - \sin \theta}} + \sqrt{\frac{1 - \sin \theta}{1 + \sin \theta}}$ is equal to

(A) $2 \sec \theta$	(B) $2 \tan \theta$
(C) $\frac{2(1 - \sin \theta)}{\cos \theta}$	(D) $2 \sin \theta$

126. The diameter of a circle is 10 cm. If the distance of a chord from the centre of the circle be 4cm, then the length of the chord is

- A. 6cm**
- B. 3cm
- C. 5cm
- D. 4cm

127. The rate percent of compound interest on Rs 10,000 amounts to become Rs 13,310 in 3 years is

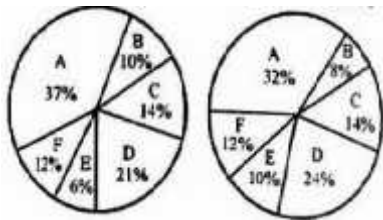
- A. 13%
- B. 11%
- C. 12%
- D. 10%**

128. If the external bisector of the vertical angle $\angle A$ of the ΔABC is parallel to the base BC, then the ΔABC is a/an

- A. Right-angled
- B. Isosceles**
- C. Scalene
- D. Equilateral

Directions:

Study the following pie-chart carefully and answer the 4 questions.



A = Science
 B = Management
 C = Arts
 D = Commerce
 E = Catering
 F = Engineering

(1) Percentage distribution of candidates studying in various discipline of a college. Total number of students = 5000.

(2) Percentage distribution of girls in each discipline of the same college Total number of girls = 2000.

129. The number of girls studying in Engineering discipline is

- A. 180
- B. 220
- C. 240**
- D. 260

130. The percentage of the number of girls studying in Catering discipline comparing to the total number of students in the college is

- A. 2
- B. 8
- C. 4**
- D. 3

131. The discipline which has the highest number of boys studying in it, is

- A. Management
- B. Arts
- C. Commerce
- D. Science**

132. The percentage of the boys studying in Management discipline comparing to the total number of students studying in that discipline is

- A. 48
- B. 58
- C. 64
- D. 68**

133. If the length of a diagonal of a square of $6\sqrt{2}$ cm, then its area will be

- A. $24\sqrt{2}$ cm²
- B. 24 cm²
- C. 72 cm²
- D. 36 cm²**

134. The length of tangent drawn from an external point P to a circle of radius 5 cm is 12 cm. The distance of P from the centre of the circle is

- A. 7 cm
- B. 9 cm
- C. 13 cm**
- D. 12 cm

135. In two days A, B and C together can finish $\frac{1}{2}$ of a work and in another 2 days B and C together can finish $\frac{3}{10}$ part of the work. Then A alone can complete the whole work in

- A. 15 days
- B. 12 days
- C. 14 days
- D. 10 days**

136. If $\frac{\sec^2 70^\circ - \cot^2 20^\circ}{2(\operatorname{cosec}^2 59^\circ - \tan^2 31^\circ)} = \frac{2}{m}$, then m is equal to

- A. 4**

- B. 2
- C. 1
- D. 3

137. If $\frac{a}{b} = \frac{c}{d} = 5$, then $\frac{3a+4c}{3b+4d}$ is equal to

- A. 60
- B. 15
- C. 5**
- D. 20

138. A water reservoir has two inlets and one outlet. Through the inlet it can be filled in 3 hours and 3 hours 35 mins respectively. It can be emptied completely in 1 hour by the outlet. If the two inlets are opened at 1 pm and 2 pm respectively and the outlet at 3 pm, then it will be emptied at

- A. 5:30 pm
- B. 5 pm
- C. 5:20 pm**
- D. 5:55 pm

139. The length of a room is 3 m more than its breadth. If the area of the floor of the room is 70 m^2 , then the perimeter of the floor will be

- A. 28 m
- B. 17 m
- C. 14 m
- D. 34 m**

140. A gun is fired from a fort. A man hears the sound 10 seconds later. If the sound travels at the rate of 330 m/sec, find the distance between the fort and the man.

- A. 3.3 km**
- B. 0.33 km
- C. 33 km
- D. 330 km

141. The number $142^2 - 1$ is divisible by

- A. 19
- B. 9
- C. 13**

D. 7

142. $\sqrt{4032} \times \sqrt{7} =$

- A. $24\sqrt{7}$
- B. 168**
- C. $36\sqrt{2}$
- D. 252

143. Two vessels contain mixture of petrol and kerosene in the ratio 4 : 3 and 3 : 5 respectively. The ratio of the volumes of the quantities from the two vessels to be mixed together so that the new mixture may contain same volume of petrol and kerosene is

- A. 9 : 6
- B. 3 : 2
- C. 7 : 8
- D. 7 : 4**

144. If $a : b = 4 : 5$, $b : c = 5 : 6$ and $c : d = 6 : 7$, then $a : c$ is

- A. 3 : 4
- B. 2 : 3**
- C. 4 : 5
- D. 5 : 6

145. If $2 \cos \theta - \sin \theta = 0$, ($0^\circ \leq \theta \leq 90^\circ$) the value of $2 \sin \theta + \cos \theta$ is

- (A) $\frac{\sqrt{2}}{3}$
- (B) $\sqrt{2}$
- (C) $\frac{3}{\sqrt{2}}$**
- (D) $\frac{1}{\sqrt{2}}$

146. By selling some goods at Rs 31, a salesman loses 7 % on his output. Find the percentage profit or loss, when he sells the same at Rs 35.

- A. Profit 5%**
- B. Loss 5%
- C. Loss 7%

D. Profit 7%

147. If $11\sqrt{n} = \sqrt{112} + \sqrt{343}$, then the value of n is

- A. 13
- B. 7**
- C. 11
- D. 3

148. If $\frac{1}{a+b} = \frac{1}{a} + \frac{1}{b}$, then the value of $a^3 - b^3$ is

- A. 2
- B. 1
- C. 0**
- D. 3

149. Each wheel of a car is making 5 revolutions per second. If the diameter of a wheel is 84 cm, then the speed of the car in cm/sec, would be

- A. 264 cm/sec
- B. 1320 cm/sec**
- C. 1000 cm/sec
- D. 420 cm/sec

150. The average monthly salary of 15 workers in a factory is Rs 285. If the salary of the manager is included, the average becomes Rs 355. What is the manager's salary?

- A. Rs 1,450
- B. Rs 1,430
- C. Rs 1,405**
- D. Rs 1,400

Part – IV : General Awareness

151. How many languages are there in the Eighth Schedule of the Constitution of India?

- A. 19
- B. 22**
- C. 18
- D. 16

152. Who was the first speaker of free India?

- A. Smt. Sarojini Naidu
- B. Frank Anthony
- C. K.M. Munshi
- D. G. V. Mavalankar**

153. The chemical name of Baking soda is

- A. Sodium hydroxide
- B. Sodium acetate
- C. Sodium bicarbonate**
- D. Sodium carbonate

154. Which one of the following gases has colour?

- A. Oxygen
- B. Nitrogen
- C. Chlorine**
- D. Hydrogen

155. Which one of the following is used as raw material for the manufacture of rayon?

- A. Cellulose**
- B. Petroleum
- C. Coal
- D. Plastic

156. Which of the following command deletes the data in the entire table and makes the delete permanent in the database?

- A. truncate
- B. Rollback
- C. Commit**
- D. Delete

157. The point on earth surface directly above the origin of an earthquake is known as

- A. Medi Centre
- B. Prime Centre
- C. Epicentre**
- D. Hypo Centre

158. Heterothallism was discovered by

- A. EJ Butler
- B. A.F Blakelee**
- C. J.H Graigie
- D. B.B mundkar

159. Which famous scientist was the first to look at the night sky through a telescope?

- A. Galileo**
- B. Copernicus
- C. Michael Faraday
- D. Newton

160. State with highest percentage of forests is

- A. Uttar Pradesh
- B. Mizoram**
- C. Arunachal Pradesh
- D. Assam

161. May 8 is observed as

- A. World Red Cross Day**
- B. Commonwealth Day
- C. World Telecommunication Day
- D. World Standard Day

162. The conductivity of a super-conductor is

- A. Zero**
- B. Infinite
- C. Small
- D. Large

163. Thillana is a format of

- A. Kathak
- B. Kuchipudi
- C. Odissi

D. Bharatnatyam

164. The number of days for a year in Mercury is

- A. 56
- B. 88**
- C. 30
- D. 36

165. The Vice President of India may be impeached by

- A. Vidhana Parishad
- B. Vidhana Sabha
- C. Rajya Sabha**
- D. Lok Sabha

166. The part of a transistor which is heavily doped to produce a large number of majority carriers is

- A. Emitter**
- B. Gate
- C. Collector
- D. Base

167. Sodium chloride or table salt occurs in nature as the mineral

- A. Sphalerite
- B. Halite**
- C. Tale
- D. Sylvite

168. Lichens developing on rocky substrates are called

- A. Lignicolous
- B. Terricolous**
- C. Corticolous
- D. Saxicolous

169. CENVAT is related to

- A. Service Tax
- B. Custom Duty
- C. Excise Duty**
- D. Sales Tax

170. Which of the following is the right expansion of TRIMs?

- A. trade Related Industrial Measures
- B. Trade Related Innovation Measures
- C. Trade Related Investment Measures**
- D. Trade Related Information Measures

171. When an explosive shell, travelling in a parabolic path under the effect of gravity explodes, the centre of mass of the fragments will move

- A. First horizontally and then along a parabolic path
- B. Vertically downwards
- C. Along the original parabolic path**
- D. First vertically upwards and then vertically downwards

172. Ornithology is the study of

- A. Birds**
- B. Bees
- C. Crustaceans
- D. Insects

173. Dengue fever is transmitted by the vector

- A. Aedes aegypti
- B. Culex fatigans
- C. Anopheles culicifacies**
- D. Mansonia uniformis

174. Breaking logical memory into blocks of the same size called as

- A. Frames**
- B. Packets
- C. Pages
- D. Segments

175. The foundation of modern cartography was laid by

- A. Aristotle
- B. Plato
- C. Homer**
- D. Socrates

176. The state which has the highest yield per hectare of potatoes in India is

- A. West Bengal
- B. Punjab
- C. Tamil Nadu
- D. Rajasthan

177. Which treaty concluded the First World War?

- A. Treaty of Tashkent
- B. Treaty of Versailles
- C. Treaty of Tilsit
- D. Treaty of Berlin

178. The Lakshadweep Islands are situated in the

- A. None of these
- B. Bay of Bengal
- C. Arabian Sea
- D. Indian Ocean

179. Taj Mahal is said to be suffering from "Marble Cancer". What is Marble Cancer?

- A. Acidic rain which corrodes marble
- B. Smokes filling the Taj Mahal from adjoining industries
- C. Yellowing of marble on a/c of soot particles.
- D. Large no. Of fungus in Taj Mahal marbles.

180. Which of the following classical economists gave a systematic theory of Economic growth?

- A. T.R Malthus
- B. David Ricardo
- C. Adam Smith
- D. J.S Mill

181. Nagarjun Sagar project is on the river

- A. Sutlej
- B. Krishna
- C. Narmada
- D. Kaveri

182. The recapitulation theory was proposed by

- A. Weissmann
- B. Ernst Haeckel
- C. Morgan
- D. Muller

183. Which State Legislative Assembly has the maximum strength (number of members)?

- A. Uttar Pradesh
- B. Maharashtra
- C. West Bengal
- D. Andhra Pradesh

184. Mohiniattam dance form developed originally in which of the following states?

- A. Karnataka
- B. Kerala
- C. Odisha
- D. Tamil Nadu

185. Reactions of automobile exhausts in the presence of sunlight leads to the formation of

- A. Photochemical fog
- B. Photodynamic reactions
- C. Photochemical smog
- D. Photosynthesis

186. Vardhamana Mahaveera attained Parinirvana at

- A. Pava
- B. Saranath
- C. Vaishali
- D. Shravanabelagola

187. Indian Banks have the maximum foreign branches in

- A. Bangladesh
- B. Srilanka
- C. U.K.
- D. U.S.A.

188. What is the number of players on each side in Baseball?

- A. 9
- B. 11
- C. 15
- D. 17

189. Name the person who started 'young Italy'

- A. Garibaldi
- B. Victor Emanuel
- C. Count Cavour
- D. Joseph Mazzini

190. The first Indian woman to reach Olympic finals in individual track events was

- A. P.T Usha
- B. M.D Valsamma
- C. Shiny Abraham
- D. Arti Saha

191. Cement factory workers are prone to

- A. Leukemia
- B. Cytosilicosis
- C. Bone marrow disease
- D. Asbestosis

192. When the money supply rises, then LM curve

- A. parallel to the horizontal axis
- B. shifts to the left
- C. shifts to the right
- D. does not change at all

193. A South Rajasthan tribe earning its living by song and dance is

- A. Mayas
- B. Khasis
- C. Moors
- D. Garasia

194. The power of Supreme Court if India to decide the dispute between the Centre and States falls under its

- A. Original Jurisdiction
- B. Constitutional Jurisdiction

- C. Advisory Jurisdiction
- D. Appellate Jurisdiction

195. In the Sun, heat and light are produced by

- A. Nuclear reactions
- B. Ionic reactions
- C. Biological reactions
- D. Chemical reactions

196. In which language did Babur write his memoirs called "Tuzuk-i-Baburi"?

- A. Mangol
- B. Persian
- C. Turkish
- D. Arabic

197. The twin planet of the earth which resembles in size, density and mass is

- A. Venus
- B. Mercury
- C. Mars
- D. Jupiter

198. Who is called the "Grand Old Man" of India?

- A. Jawaharlal Nehru
- B. Mahatma Gandhi
- C. Gopal Krishna Gokhale
- D. Dadabhai Naoroji

199. Dwarf plants can be made taller by applying

- A. Cytokinins
- B. Dormin
- C. Auxins
- D. Gibberellins

200. A.P.J. Abdul Kalam, the former President of India, is the author of the book

- A. The Wings of Fire and Ignited Minds
- B. None of these
- C. The Algebra of Infinite Justice
- D. Four Fires and Death of Fire