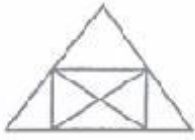


Part I : General Intelligence

1. Find the number of triangles in the following figure:



- A. 10
- B. 8
- C. 14
- D. 12

2. In a line, Naresh is 17th from the left & 22nd from the right. How many students are there in the line?

- A. 37
- B. 40
- C. 38
- D. 39

3. In a class of 45, Neha's rank is 15th from first, what is her rank from the last?

- A. 32
- B. 31
- C. 33
- D. 30

4. Find out the set of numbers amongst the four sets of numbers given in the alternative which is most like the set given in the question.

- A. (14, 28, 112)
- B. (13, 26, 169)
- C. (15, 45, 90)
- D. (10, 25, 100)

5. From the given alternative words, select the word which cannot be formed using the letters of the given word.

HARBINGER

- A. GARBAGE
- B. BARRING
- C. RANGER
- D. GARNER

Question Nos. 6 to 9

Directions : A series is given, with one/two term missing. Choose the correct alternative from the given ones that will complete the series.

6. -1, 0, 3, 8, 15, ?

- A. 25
- B. 23
- C. 26
- D. 24

7. 6, 2, 9, 4, 12, __, __.

- A. 8, 24
- B. 13, 15
- C. 6, 15
- D. 4, 13

8. A C E Z X V G I K T R P ?

- A. M
- B. N
- C. L
- D. O

9. A D H M S ?

- A. Z
- B. W
- C. X
- D. T

10. 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 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., 'A' can be represented by 03, 14 etc., and 'U' can be represented by 56, 65 etc. Similarly, you have to identify the set for the word 'BRIDE'.

MATRIX-I
आव्यूह - I

	0	1	2	3	4
0	E	S	P	A	R
1	R	E	S	P	A
2	A	R	E	S	P
3	P	A	R	E	S
4	S	P	A	R	E

MATRIX-II
आव्यूह - II

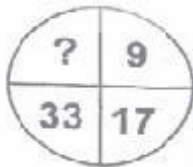
	5	6	7	8	9
5	B	U	I	L	D
6	U	I	L	D	B
7	I	L	D	B	U
8	L	D	B	U	I
9	D	B	U	I	L

- A. 96, 03, 75, 67, 22
 B. 96, 03, 75, 85, 22
 C. 55, 57, 21, 22, 86
 D. 55, 21, 57, 86, 22

Question Nos. 11 to 13

Directions : Select the missing number from the given responses.

11.



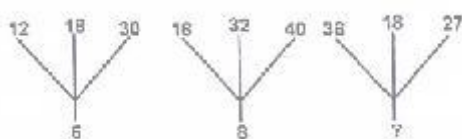
- A. 65
 B. 68
 C. 55
 D. 60

12.



- A. 54
 B. 42
 C. 45
 D. 58

13.



- A. 6
 B. 9
 C. 12
 D. 18

14. Karthik travelled 3 km east, then took a right and travelled 4 kms. How far is he from starting point?

- A. 12 kms
 B. 7 kms
 C. 3 kms
 D. 5 kms

Question Nos. 15 to 23

Directions : Select the related word / letters / number from the given alternatives.

15. 144 : 13 :: 49 : ?

- A. 10
 B. 11
 C. 9
 D. 8

16. ABDE : GHJK :: MNPQ : ?

- A. RSUV
 B. STVX
 C. CEFH
 D. RTUW

17. 6 : 42 :: 5 : ?

- A. 35
 B. 40
 C. 45
 D. 30

18. ACE : GIK :: MOQ : ?

- A. SUW
 B. RTU
 C. VXZ
 D. STU

19. Ant : Fly : Bee :: Hamster : Squirrel : ?

- A. Spider
 B. Cat
 C. Rodent

D. Mouse

20. Brick : Wall :: Cell : ?

- A. DNA
- B. Chlorophyll
- C. Tissue
- D. Organs

21. Hockey : India :: Baseball : ?

- A. China
- B. USA
- C. Australia
- D. Russia

22. GNIDAER : READING :: NOITULOS : ?

- A. Solunoit
- B. Solution
- C. Noilosut
- D. Pollution

23. 21 : 3 :: 574 : ?

- A. 82
- B. 113
- C. 97
- D. 23

Question Nos. 24 to 32

Directions : Find the odd word / letters / number pair from the given alternatives.

24.

- A. 100
- B. 125
- C. 343
- D. 216

25.

- A. 15 : 46
- B. 13 : 40
- C. 8 : 25
- D. 6 : 22

26.

- A. PSV

B. FIL

- C. VXB
- D. DHK

27.

- A. 81
- B. 71
- C. 51
- D. 21

28.

- A. PORTRAIT
- B. PAINT
- C. SKETCH
- D. DRAW

29.

Q37Q
A)

DRE^TST
B)

KZM^TY^T
C)

N^TL^TOP
D)

30.

- A. GLOVES
- B. SWEATER
- C. SHAWL
- D. UMBRELLA

31.

- A. HAND
- B. NOSE
- C. EYES
- D. MOUTH

32.

- A. RQPO
- B. HNOP
- C. HGFE
- D. VUTS

Question Nos. 33 to 34

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

- 33. 1. Voracious
- 2. Voucher
- 3. Vortex

4. Voluntary

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

34. 1. Absolute
2. Abrasive
3. Absorption
4. Abundance
5. Abiogenesis

- A. 5,2,1,3,4**
- B. 5,2,3,1,4
- C. 2,5,1,3,4
- D. 3,4,5,2,1

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

ENDEARMENT

- A. TEMPER
- B. TENDER
- C. MEANS
- D. TENT**

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

ab_cba_bcc_aabccb__bccba

- A. abcab
- B. cabaa**
- C. abbac
- D. ccaab

37. Of the 5 towns A, B, C, D and E situated close to each other. A is to the west of B, C is to the south of A, E is to the north of B and D is to the east of E. Then C is in which direction with respect to D?

- A. North-East
- B. South-East
- C. South-West**
- D. North-West

38. Which one of the following is water

image of "COMMISSION"?



Question Nos. 39 to 40

Directions : One/two statement are given, each followed by two conclusion/assumption, I and II. You have to consider the statement to be true even if they seem to be at variance from facts. You have to decide which of the given conclusion / assumptions, if any, follows from the given statements.

39. Statement

Travelling by metro in Delhi is more convenient and economical.

Assumptions

- I. Other modes of transport are not available.
- II. Metro service are reasonably good.

- A. Only Assumption II is implicit**
- B. Neither I nor II are implicit
- C. Both I and II are implicit
- D. Only Assumption I is implicit

40. Statement

Continuous training is essential for all employees to increase their productivity.

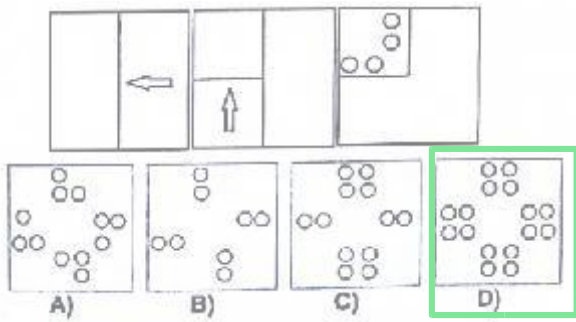
Assumptions

- I. Training is an essential component for productivity.
- II. Profitability & productivity are supplementary to each other.

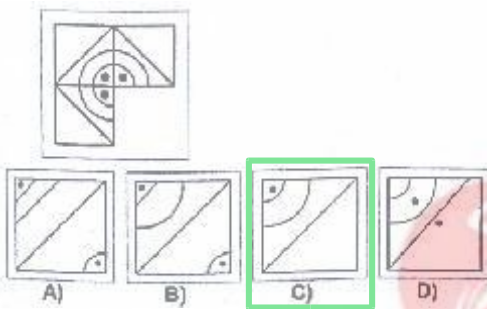
A. Assumption I is implicit

- B. Neither assumption I nor II are implicit
- C. Only assumption II is implicit
- D. Both assumption I and II are implicit

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



42. Which answer figure will complete the pattern in the question figure/



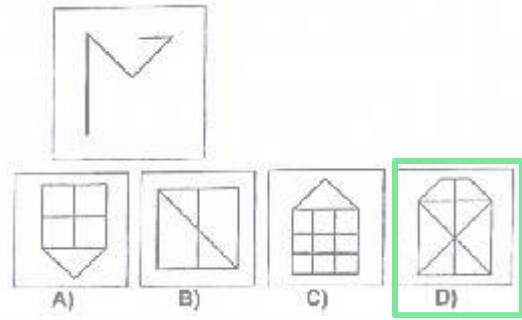
43. Find the wrong number in the given series?

- A. 39
- B. 15
- C. 28
- D. 30

44. If BOY is represented as 42, then GIRL is represented as :

- A. 40
- B. 46
- C. 43
- D. 48

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



46. If + means \div , \div means \times , and \times means +, then following will be:

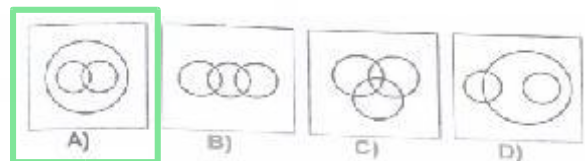
- A. 160
- B. 144
- C. 136
- D. 128

47. Some equations have been solved on the basis of certain system. Find the correct answer for the unsolved equations on that basis?

If $72 \times 19 = 23$, $13 \times 48 = 35$ and $16 \times 43 = 18$ then $39 \times 22 = ?$

- A. 31
- B. 51
- C. 21
- D. 27

48. Identify the diagram that best represents the relationship among classes given below: Athletes, Sprinters, Marathon runner



49. What is the best way to order the progression in Hardware?

1. Silicon chips
2. Transistors
3. Vacuum tube
4. Integrated circuits

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

D. 4,2,3,1

50. If LISTEN is coded as 593417 then
SILENT is coded as:

A. 391754

B. 591743

C. 591734

D. 395174



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Part II : English Language

Question Nos. 51 to 60

Directions : 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 alternative and fill in the blanks.

Although we can I the II bodies of our solar system III a telescope, it is only IV who can V the depths of outer space. It is reported that they have seen VI galaxies, stars taking VII and VIII, and 'black holes,. They say that the deeper they look IX the universe, the more they know X the universe originated.

51.

- A. (I) observe
- B. (I) find
- C. (I) look
- D. (I) reach

52.

- A. (II) heaven
- B. (II) heavy
- C. (II) heavenly
- D. (II) heavier

53.

- A. (III) with
- B. (III) through
- C. (III) at
- D. (III) by

54.

- A. (IV) astrology
- B. (IV) astronomy
- C. (IV) astronomers
- D. (IV) astrologers

55.

- A. (V) view
- B. (V) overview
- C. (V) viewed

D. (V) views

56.

- A. (VI) stunned
- B. (VI) stunning
- C. (VI) stunning
- D. (VI) shine

57.

- A. (VII) birth
- B. (VII) berth
- C. (VII) born
- D. (VII) borne

58.

- A. (VIII) die
- B. (VIII) dyeing
- C. (VIII) died
- D. (VIII) dying

59.

- A. (IX) at
- B. (IX) through
- C. (IX) on
- D. (IX) into

60.

- A. (X) how
- B. (X) where
- C. (X) why
- D. (X) what

Question Nos. 61 to 64

Directions : 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" option in the Answer Sheet.

61. They had to put of the garden party because of the heavy rain.

- A. put of the garden party
- B. They had to

- C. because of the heavy rain
- D. No Error

62. Scientist now hope that cloning can successfully be conducted in human beings in the near future.

- A. human beings in the near future
- B. can successfully be conducted in
- C. Scientist now hope that cloning
- D. No Error

63. What delicious flavour these mangoes have!

- A. have !
- B. flavour these mangoes
- C. What delicious
- D. No Error

64. When one takes great risks they must be prepared for great losses.

- A. When one takes great risks
- B. for great losses
- C. they must be prepared
- D. No Error

Question Nos. 65 to 68

Directions : The 1st and the last part of the sentence are numbered 1 and 6. The rest of the 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.

65. 1. It is those good works
P. that lead to peak performance
Q. which we do with passion
R. our understanding of our purpose
S. and which come to reflect
6. in this life.

- A. QPSR
- B. PRQS
- C. QSRP
- D. SRQP

66. 1. Moisturisers for the face

P. as oily ones may block
Q. in greater concentration on the face
R. the oil glands found
S. should be chosen carefully
6. and cause pimple / acne to break out.

- A. SQPR
- B. SRPQ
- C. SPRQ
- D. SPQR

67. 1. Everyone
P. the case calmly
Q. acknowledges
R. who knows you
S. when he considers
6. that you have been wronged.

- A. RQSP
- B. SRPQ
- C. PSQR
- D. QRSP

68. 1. I am a self-confessed technophobe.
P. I believe that computer is responsible for the dying of the art of the conversation.
Q. I have come to hate technology and the way it dominates every aspect of life.
R. For many, it has become the most important object both in home and at the workplace.
S. One of the worst offenders is the computer.
6. Small wonder then, that I have managed to keep this ubiquitous machine out of my home.

- A. SRPQ
- B. PQRS
- C. QSRP
- D. RPSQ

Question Nos. 69 to 72

Directions : Out of the four alternatives, choose the one which can be substituted for the given words/sentences and indicate it by blackening the appropriate circle in the Answer Sheet.

69. Lasting for a very short time.

- A. Friable
- B. Eternal

- C. Metronomic
- D. Ephemeral

70. Rules governing socially acceptable behaviour.

- A. Behaviour
- B. Etiquette
- C. Formality
- D. Politeness

71. A person who is easily deceived or tricked.

- A. Gullible
- B. Tangible
- C. Trouble
- D. Trickster

72. Submission to all that happens as inevitable.

- A. Fatalism
- B. Superstition
- C. Pragmatism
- D. Pessimism

Question Nos. 73 to 76

Directions : Out of the four alternatives, choose the one which best expresses the meaning of the given word and mark it in the Answer Sheet.

73. Limpid

- A. clear
- B. lopsided
- C. crippled
- D. ruffled

74. Merge

- A. blend
- B. meet
- C. contact
- D. mixture

75. Gourmet

- A. fussy
- B. praise

- C. constant
- D. gastronome

76. Vocation

- A. holiday
- B. break up
- C. virtue
- D. occupation

Question Nos. 77 to 78

Directions : A sentence has been given in Active / Passive Voice. Out of the four alternatives the same sentence in Passive/Active Voice and mark your answer in the Answer Sheet.

77. We must take care of our parents.

- A. Our parents must be cared for by us.
- B. Our parents are taken care of by us.
- C. Our parents had been taken care of by us.
- D. Our parents will be taken care of by us.

78. Please close the door.

- A. Please be the door closed by you.
- B. You close the door yourself
- C. Let the door be closed by you.
- D. You please close the door.

Question Nos. 79 to 82

Directions : Choose the word opposite in meaning to the given word and mark it in the Answer Sheet.

79. Demand

- A. request
- B. supply
- C. claim
- D. petition

80. Descent

- A. dissent
- B. assent
- C. ascent
- D. discern

81. Notorious

- A. prominent
- B. reputed
- C. infamous
- D. honourable

82. Illicit

- A. noble
- B. legal
- C. approved
- D. correct

Question Nos. 83 to 86

Directions : 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.

83. He has made a dog's breakfast of these accounts.

- A. A breakfast for the dogs.
- B. A breakfast being served by the dogs.
- C. A total mess
- D. An accurate summary.

84. A Sacred Cow

- A. a person never to be criticised
- B. a saintly person
- C. a helpful person
- D. a very religious person

85. To shun evil compay.

- A. To let loose evil company
- B. To give up evil company
- C. To put off evil company
- D. To kick out evil company

86. You will be reminded of the seamy side of life if you visit the slum tenements.

- A. the gentler aspects
- B. the impleasant aspects
- C. the softer aspects
- D. the pleasanter aspects

Question Nos. 87 to 90

Directions : 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 by blackening the appropriate circle in the Answer Sheet.

87. Have you even ____ the wolf cry?

- A. hear
- B. heard
- C. hear out
- D. heard of

88. Mrs Hall was prepared to excuse the scientist's strange habits and ____ temper.

- A. irate
- B. irritation
- C. irritable
- D. irritate

89. A freen ____ that the weather was very pleasant that day.

- A. remarked
- B. suggested
- C. argued
- D. announced

90. This house ____ ten rooms.

- A. consists of
- B. consists by
- C. consisted with
- D. consist of

Question Nos. 91 to 94

Directions : A sentence / 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 choose "No Improvement".

91. Rani has completed her graduation from a reputed university last year.

- A. completed

- B. was completed
- C. No Improvement
- D. had been completed

92. The terrorist as well as his accomplices was killed in the encounter.

- A. No Improvement
- B. was being killed
- C. were killed
- D. have been killed

93. In spite of age he is my senior

- A. He is my senior in regard of his age.
- B. in respect of age, he is my senior.
- C. He is my senior, in keeping with his age.
- D. No Improvement

94. The Councillor behaves as if he title Chief Minister

- A. was
- B. were
- C. has been
- D. No Improvement

Question Nos. 95 to 98

Directions: 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.

95.

- A. pridilection
- B. predalection
- C. prediliction
- D. predilection

96.

- A. restuarant
- B. restaurent
- C. restuarent
- D. restaurant

97.

- A. manoeuvre
- B. maouvre

- C. manuvere
- D. manouevr

98.

- A. accumulate
- B. accumulate
- C. acummulate
- D. accumullate

Question Nos. 99 to 100

Directions: 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 the Answer Sheet.

99. Meera's mother told her not to forget to buy the milk.

- A. Meera's mother said "Remember to buy the milk"
- B. Meera was told by her mother "Buy the milk"
- C. Meera's mother reminded her, "Don't forget to buy the milk"
- D. Meera's mother said to her, "You must buy the milk."

100. I said to him, "Do you definitely need the suit next week?"

- A. I asked him if he needed the suit the next week.
- B. I asked him if he definitely needed the suit the following week.
- C. I asked him if definitely he needed the suit the next week.
- D. I asked him if he definitely need the suit the following week.

Part-III: Quantitative Aptitude

101. The value of x in the equation

$$\tan^2 \left[\frac{1}{4} - \cos^2 \left[\frac{1}{3} - x \sin \left[\frac{1}{4} \cos \left[\frac{1}{4} \tan \left[\frac{1}{3} \right] \right] \right] \right] \right]$$

समीकरण $\tan^2 \left[\frac{1}{4} - \cos^2 \left[\frac{1}{3} - x \sin \left[\frac{1}{4} \cos \left[\frac{1}{4} \tan \left[\frac{1}{3} \right] \right] \right] \right] \right]$

में x का मान क्या है?

A) $\frac{11}{2}$
C) $\frac{2}{\sqrt{3}}$

B) $\frac{1}{\sqrt{3}}$
D) $\frac{3\sqrt{3}}{4}$

Question No.s 102 to 105

Directions : The Expenditure of a family in a month is represented by a Pie-chart. Read it and answer the questions.



102. If the total amount spent is Rs 7,200. Find the amount spent on food?

- A. Rs 6000
- B. Rs 3000
- C. Rs 4500
- D. Rs 1500

103. The ratio of the amount spent on food and clothes?

- A. 4 : 1
- B. 5 : 1
- C. 2 : 5
- D. 4 : 5

104. The total money spent on clothes and miscellaneous items are :

- A. Rs 900

B. Rs 3600

C. None of the options

D. Rs 2000

105. The % money spent on food compared to house rent is by?

- A. 12.5 %
- B. 50 %
- C. 25 %

D. None of the options

106. A house was sold for Rs y by giving a discount of $x\%$ then the list price was:

A) $\frac{100x}{100-y}$

B) $\frac{100y}{1-x}$

C) $\frac{100y}{100-x}$

D) $\frac{100y}{1-x}$

107. Two positive whole numbers are such that the sum of the first and twice number is 8 and their difference is 2. The numbers are:

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

108. A vessel contains 60 litres of milk. 12 litres of milk taken out from it and replaced by water. Then again from mixture, 12 litres are again taken out and replaced by water. The ratio of milk and water in the resultant mixture is :

- A. 15 : 10
- B. 16 : 10
- C. 16 : 9
- D. 9 : 5

109. ABCD is a square. Draw a triangle QBC on side BC considering BC as base and draw a triangle PAC on AC as its base such that $\Delta QBC \sim \Delta PAC$.

Then $\frac{\text{Area of } \Delta QBC}{\text{Area of } \Delta PAC}$ is equal to:

- A. 2/1
- B. 1/3
- C. 1/2

D. $\frac{2}{3}$

110. A number of boys raised Rs 12,544 for a famine fund, each boy has given as many rupees as there were boys. The number of boys was:

- A. 122
- B. 102
- C. 112
- D. 132

111. $83\frac{1}{3}\%$ of Rs. 90 is equal to 60% of ?

- A. Rs 125
- B. Rs 123
- C. Rs 122
- D. Rs 124

112. A hemispherical bowl has internal radius of 6 cm. The internal surface area would be : (taken $\Pi = 3.14$)

- A. 226.08 cm^2
- B. 225 cm^2
- C. 400 cm^2
- D. 289.75 cm^2

113. If $1^3 + 2^3 + \dots + 10^3 = 3025$, then the value of $2^3 + 4^3 + \dots + 20^3$ is :

- A. 5060
- B. 12100
- C. 7590
- D. 24200

114. The speed of a car is 54 km/hr, What is its speed in m/sec?

- A. 150 m/sec
- B. 194.4 m/sec
- C. 19.44 m/sec
- D. 15 m/sec

115. A fruit seller buys oranges at the rate of Rs10 per dozen and sells at the rate of Rs12 per dozen. His gain percent is:

- A. $8\frac{1}{3}\%$
- B. 15%
- C. 12%
- D. 20%

116. A contractor was engaged to construct a road in 16 days. After working for 12 days with 20 labours it was found that only $\frac{5}{8}$ th of the road had been constructed. To complete the work in stipulated time the number of extra labours required is:

- A. 16
- B. 10
- C. 12
- D. 18

117. If $a + \frac{1}{b} = 1$ and $b + \frac{1}{c} = 1$
then $c + \frac{1}{a}$ is equal to :

- A. 2
- B. 1
- C. $\frac{1}{2}$
- D. 0

118. The current ages of Sonali and Monali are in the ratio 5 : 3. Five years from now, their ages will be in the ratio 10 : 7. Then, Monali's current age is:

- A. 15 years
- B. 9 years
- C. 5 years
- D. 3 years

119. If for non-zero x , $x^2 - 4x - 1 = 0$ the value of $x^2 + \frac{1}{x^2}$ is:

- A. 4
- B. 18
- C. 10
- D. 12

120. By selling an article for Rs 450, I lose 20%. For what amount, should I sell it to gain 20%?

- A. Rs 675
- B. Rs 470
- C. Rs 490
- D. Rs 562.50

121. The simplified value of following is:

$$\left(\frac{3a^5b^6c^3}{15} \times \frac{5ab^5c^4}{9} \right) \div \frac{10a^2bc^3}{27}$$

- A) $\frac{9a^2bc^4}{10}$ B) $\frac{3ab^4c^3}{10}$
 C) $\frac{1a^4b^4c^{10}}{10}$ D) $\frac{3a^4b^{10}c^4}{10}$

122. The surface area of a sphere is 616 cm^2 . The volume of the sphere would be:

- A) $1437\frac{1}{3} \text{ cm}^3$ B) $1225\frac{3}{5} \text{ cm}^3$
 C) 2500 cm^3 D) 2100 cm^3

123. Value of expression:

$$\frac{1 + 2 \sin 60^\circ \cos 60^\circ}{\sin 60^\circ + \cos 60^\circ} + \frac{1 - 2 \sin 60^\circ \cos 60^\circ}{\sin 60^\circ - \cos 60^\circ}$$

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

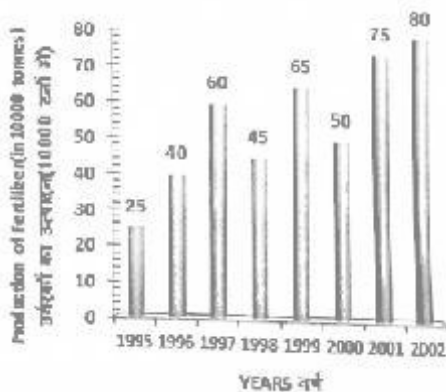
124. If $\alpha + \beta = 90^\circ$ then the expression

$$\frac{\tan \alpha}{\tan \beta} + \sin^2 \alpha + \sin^2 \beta \text{ is equal to :}$$

- A. $\sec^2 \alpha$
 B. $\sec^2 \beta$
 C. $\tan^2 \beta$
 D. $\tan^2 \alpha$

Question No.s 125 to 129

Directions : Study the following bar graph and answer the questions.



125. The percentage increase in production as compared to previous year is maximum in year:

- A. 2002
 B. 1996
 C. 1997
 D. 1999

126. The number of years, the production of fertilizers was more than average production of the given years is:

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

127. The average production of 1996 and 1997 is exactly equal to the average production of the years?

- A. 2000 and 2001
 B. 1999 and 2000
 C. 1995 and 1999
 D. 1995 and 2001

128. The percentage decline in the production of fertilizers from 1997 to 1998 is:

- A. 26%
 B. 25%
 C. 27.5%
 D. 23%

129. The percentage increase in production of fertilizers in 2002 compared to that in 1995 is:

- A. 240%
 B. 200%
 C. 180%
 D. 220%

130. If 20 women can lay a road of length 100m in 10 days. 10 women can lay the same road of length 50m in:

- A. 5 days
 B. 20 days
 C. 10 days
 D. 15 days

131. If $\sin 2\theta = \sqrt{3}/2$ then the value of $\sin 3\theta$ is equal to:
(Take $0^\circ \leq \theta \leq 90^\circ$)

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

132. The volume of the largest right circular cone that can be cut out of a cube of edge 7cm? (use $\pi = 22/7$)

- A. 121 cm^3
- B. 147.68 cm^3
- C. 13.6 cm^3
- D. 89.8 cm^3**

133.

If $a = \frac{\sqrt{3}-\sqrt{2}}{\sqrt{3}+\sqrt{2}}$ and $b = \frac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}}$, then the value of $\frac{a^2+b^2}{b+a}$ is:

- A. 970**
- B. 1030
- C. 1025
- D. 930

134. In ΔABC , $\angle B=60^\circ$, and $\angle C=40^\circ$; AD and AE are respectively the bisector of $\angle A$ and perpendicular on BC. The measure of $\angle EAD$ is:

- A. 10°**
- B. 12°
- C. 11°
- D. 9°

135. The length of two parallel sides of a trapezium are 15cm and 20cm. If its area is 175 sq.cm, then its height is:

- A. 10cm**
- B. 25cm
- C. 20cm
- D. 15cm

136. If $p = -0.12$, $q = -0.01$ & $r = -0.015$, then the correct relationship among the three is :

- A. $p < r < q$**
- B. $q > p > r$
- C. $p > r > q$
- D. $p > q > r$

137. Two circles of radii 5 cm and 3cm touch externally, then the ratio in which the direct common tangent to the circles divides externally the line joining the centers of the circles is:

- A. 3 : 5
- B. 2.5 : 1.5
- C. 1.5 : 2.5
- D. 5 : 3**

138. The income of a company increases 20% per annum. If its income is Rs 26,64,000 in the year 2012, then its income in the year 2010 was:

- A. Rs 21,20,000
- B. Rs 28,20,000
- C. Rs 28,55,000
- D. Rs 18,50,000**

139. A train 150m long passes a km stone in 30 seconds and another train of the same length travelling in opposite direction in 10 seconds. The speed of the second train is:

- A. 90 km/hr**
- B. 75 km/hr
- C. 25 km/hr
- D. 125 km/hr

140. The average of 13 results is 70. The average of first seven is 65 and that of the last seven is 75, the seventh result is:

- A. 67
- B. 68
- C. 70**
- D. 70.5

141. In ΔABC , $AB = BC = K$, $AC = \sqrt{2} K$, then ΔABC is a:

- A. Right-angled triangle
- B. Isosceles triangle
- C. Right isosceles triangle**
- D. Equilateral triangle

142.

- A. $\frac{3}{5}$
- B. $\frac{1}{5}$
- C. $\frac{2}{5}$
- D. $\frac{4}{5}$

143. In an exam the sum of the scores of A and B is 120, that of B and C is 130 and that of C and A is 140. Then the score of C:

- A. 65
- B. 75
- C. 70
- D. 60

144. The distance between centres of two circles of radii 3 cm and 8 cm is 13 cm. If the points of contact of a direct common tangent to the circles are P and Q, then the length of the line segment PQ is:

- A. 11.5 cm
- B. 12 cm
- C. 11.9 cm
- D. 11.58 cm

145. If water is freezed to become ice, its volume is increased by 10%, then if the ice is melted to water again, its volume will be decreased by:

- A) $9\frac{1}{2}\%$
- B) $9\frac{1}{11}\%$
- C) 8%
- D) 9%

146. The smallest five digit number which is divisible by 12,18 and 21 is:

- A. 10080
- B. 50321
- C. 30256
- D. 10224

147. A shopkeeper marks his goods 20% higher than the cost price and allows a discount of 5%. The percentage of his profit is:

- A. 20%
- B. 15%

- C. 10%
- D. 14%

148. The compound interest on Rs 12000 for 9 months at 20% per annum, interest being compounded quarterly is:

- A. Rs 2089.70
- B. Rs 1750
- C. Rs 2136.40
- D. Rs 1891.50

149. The outer circumference of a circular race-track is 528 metre. The track is everywhere 14 metre wide. Cost of levelling the track at the rate of Rs 10 per sq. metre is:

- A. Rs 66760
- B. Rs 76760
- C. Rs 77660
- D. Rs 67760

150.

If $(2a-1)^2 + (4b-3)^2 + (4c+5)^2 = 0$ then the value of $\frac{a^3+b^3+c^3-3abc}{a^2+b^2+c^2}$ is:

- A) 0
- B) $3\frac{3}{8}$
- C) $2\frac{3}{8}$
- D) $1\frac{3}{8}$

Part IV – General Awareness

151. A light wave is incident over a plane surface with velocity X. After reflection the velocity becomes:

- A. 2^*
- B. $x/2$
- C. X
- D. $x/4$

152. The redness in atmosphere at Sunrise and Sunset is due to:

- A. Dispersion of light
- B. Reflection of light
- C. Scattering of light
- D. Refraction of light

153. The five key indicators of global climate change of our planet are:

- A. None of the options
- B. Antarctic Sea ice Oxygen, Rainfall Drought and Sea level
- C. Arctic Sea ice, Carbon dioxide, Global temperature, Sea level and Land ice
- D. Sea-level, Rising temperatures, Rainfall, Nitrogen and Arctic Sea ice

154. Where did Chandragupta Maurya spent his last days?

- A. Kanchi
- B. Sravanabelogola
- C. Pataliputra
- D. Thaneshwar

155. The gas dissolved in water that makes it basic is?

- A. hydrogen
- B. carbon dioxide
- C. sulphur dioxide
- D. ammonia

156. In a reaction of the type $A+B \rightarrow C+D$ one could ensure it to be a first order reaction by:

- A. Increasing the concentration of a product
- B. Increasing the concentration of a reactant

- C. Increasing the temperature
- D. Adding a catalyst

157. Which day is celebrated as International Yoga Day?

- A. April 23
- B. July 21
- C. September 21
- D. June 21

158. Project tiger programme was launched in:

- A. 1994
- B. 1973
- C. 1975
- D. 1971

159. Who is the author of 'Indica'?

- A. Hiuen Tsang
- B. Fa-Hien
- C. Selucas
- D. Megasthenes

160. Soldering of two metals is possible because of the property of:

- A. Osmosis
- B. Cohesion
- C. Viscosity
- D. Surface tension

161. Impeachment Proceedings against the President for violation of the Constitution can be initiated in:

- A. The Rajya Sabha
- B. The Supreme Court
- C. The Lok Sabha
- D. Either House of Parliament

162. Who built the "Purana Quilla"?

- A. Shershah
- B. Aurangzeb
- C. Akbar
- D. Babar

163. Who wrote 'Discovery of India'?

- A. Mahatama Gandhi
- B. Jawahar Lal Nehru**
- C. APJ Abdul Kalam
- D. Bal Gangadhar Tilak

164. In which region of electromagnetic spectrum does the Lyman series of hydrogen atom lie?

- A. Ultraviolet**
- B. Infrared
- C. Visible
- D. x-ray

165. Who among the following is not a Bharatanatyam dancer?

- A. Sonal Mansingh
- B. Sitara Devi**
- C. Leela Samson
- D. Geeta Ramachandran

166. Which one of the following tribes practices pastoral nomadism?

- A. Boro
- B. Masai
- C. Pygmies**
- D. Eskimo

167. Whose army did Alexander, the Greek ruler confront on the banks of the river Jhelum?

- A. Dhanananda
- B. Porus**
- C. Chandragupta Maurya
- D. Ambi

168. Which Indian newspaper has the largest readership?

- A. The Malayala Manorama
- B. The Hindu
- C. Indian Express
- D. The Danik Jagran**

169. The famous activist Medha Patkar is associated with which movement?

- A. Save the Tiger
- B. Preserve the wet lands

- C. Narmda Bachao Andolan**
- D. Beti Padao Ando Ian

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

- A. International Law and Order
- B. International Labour Organization**
- C. Inter-State Lawful Ordinance
- D. Indian Legal Orientation

171. Which state of India has made rain water harvesting compulsory for all houses?

- A. Haryana
- B. Punjab
- C. Maharashtra
- D. Tamil Nadu**

172. FORTRAN is called:

- A. Floppy Translator
- B. Format Translator
- C. File Translator
- D. Formula Translator**

173. Perfectly inelastic demand is equal to:

- A. Greater than one
- B. Infinite
- C. One
- D. Zero**

174.) The most suitable soil for the production of cotton is?

- A. Loamy soil
- B. Alluvial soil
- C. Black lava soil**
- D. Well drained soil

175. An electrochemical cell which is used as a source of direct electrical current at constant voltage under standard conditions is called a:

- A. Uninterrupted power supply (UPS)
- B. Battery**
- C. Power transmitter
- D. Generator

176. Kanha National Park is located in:

- A. Andhra Pradesh
- B. Bihar
- C. Tamil Nadu
- D. Madhya Pradesh

177. Yellow complexion, Medium stature, Oblique eye with an epicanthic fold is the characteristic feature of:

- A. Cacosoid
- B. Australoids
- C. Negroid
- D. Mongoloid

178. December 1 is celebrated as:

- A. World AIDS Day
- B. Children's Day
- C. UNICEF Day
- D. Indian Navy Day

179. When was RTI Act enacted in India?

- A. 15th August 2005
- B. 15th June 2005
- C. 15th July 2005
- D. 15th March 2005

180. Distant objects are visible as a little out of focus in this condition:

- A. astigmatism
- B. myopia
- C. hypermetropia
- D. presbiopia

181. The 73rd Constitutional amendment act is related to?

- A. Foreign Exchange
- B. RBI
- C. Finance Commission
- D. Panchayat Raj

182. The largest producer of Lignite in India is:

- A. Tamil Nadu
- B. Rajasthan
- C. Gujarat
- D. Kerala

183. Who was the First Speaker of the Lok Sabha?

- A. Hukum Singh
- B. Ganesh Vasudev
- C. Neelam Sanjeeva Reddy
- D. K.S. Hegde

184. Sex-ratio is calculated as:

- A. No of people per 1,000 children in country.
- B. No of children per 1,000 people in a country.
- C. No of males per 1,000 females in a country.
- D. No of females per 1,000 males in a country.

185. Chromosome designation of Turner syndrome is:

- A. 44A+XXX
- B. 44A+XXY
- C. 44A+XO
- D. 44A+XYY

186. The biggest oil spill in world history took place in the?

- A. Caspian Sea
- B. Mediterranean Sea
- C. Persian Gulf
- D. South China Sea

187. Which of the following is a form of sexual reproduction:

- A. Fission
- B. Fragmentation
- C. Haemaphysostomum
- D. Budding

188. The opening ceremony of the ICC Cricket World Cup 2015 was held on 12 February 2015 in which cities of New Zealand and Australia?

- A. Hamilton and Perth
- B. Napier and Adelaide
- C. Wellington and Sydney
- D. Christchurch and Melbourne

189. The area reserved for the welfare of wild life is called?

- A. Botanical garden
- B. Sanctuary
- C. Forest
- D. National Park

190. Ryder Cup is a famous tournament of:

- A. Cricket
- B. Badminton
- C. Lawn Tennis
- D. Golf

191. Maximum oxygen is available from:

- A. Phytoplanktons
- B. Green forests
- C. Grassland
- D. Deserts

192. Who is the first woman JPS officer in India?

- A. Sarojini Naidu
- B. Indira Gandhi
- C. Bachendri Pal
- D. Kiran Bedi

193. Who was the first Secretary General of U.N.O.?

- A. Dag Hammarskjold
- B. Kurt Waldheim
- C. U-Thant
- D. Trygve Lie

194. Lender of the Last Resort is:

- A. SBI
- B. NABARD
- C. RBI
- D. IDBI

195. Among the following which country has the highest life expectancy?

- A. Denmark
- B. Switzerland
- C. U.S.A.
- D. Japan

196. In 2010 a newspaper published its 70,000th issue. Which was the newspaper?

- A. The Times of London
- B. The Oxford Gazette
- C. The Washington Post
- D. The Hindustan Times

197. The National Green Tribunal deals with cases relating to?

- A. Issues relating to protection and conservation of historical monuments.
- B. Environmental protection and conservation of forests
- C. Criminal offenses
- D. Civil cases

198. Who has been named ICC World Cup 2015 Ambassador?

- A. Sanath Teran Jayasuriya
- B. Allan Robert Border
- C. Sachin Tendulkar
- D. Sir Issac Vivian Alexander Richards

199. In operating system, Round Robin Scheduling means:

- A. Repetition policy
- B. A kind of scheduling
- C. A memory allocation policy
- D. A process allocation policy

200. Stalactites & Stalagmites form due to the precipitation of:

- A. $MgCl^2$
- B. $CaCl^2$
- C. $CaCO^3$
- D. $MgCO^3$