

Part – I General Intelligence

1. In the following series find 20th number.

9, 5, 1, -3, -7, -11,

- A. -75
- B. -70
- C. -67
- D. -64

2. Unscramble the following letters to frame a meaningful word. Then find out the correct numerical position of the letters.

O T Y S R H I
1 2 3 4 5 6 7

- A. 6 4 5 2 1 7 3
- B. 6 3 4 7 1 2 5
- C. 6 7 4 2 1 5 3
- D. 6 2 4 1 3 7 5

3. The sum of ages of mother, daughter and son is 87 years. What will be the sum of their ages after 8 years ?

- A. 111
- B. 105
- C. 101
- D. 110

4. If FADE is coded as 3854 then how can GAGE be coded ?

- A. 2824
- B. 2814
- C. 1824
- D. 2834

5. If '-' stands for addition, '+' for multiplication, '÷' for subtraction and 'x' for division, which one of the following equation is correct?

- A. $5 \div 2 + 12 \times 6 - 2 = 4$
- B. $5 - 2 + 12 \times 6 \div 2 = 27$
- C. $5 + 2 - 12 \div 6 \times 2 = 13$
- D. $5 + 2 - 12 \times 6 \div 2 = 10$

6. Which conclusion is true with respect

to the given statements?

Statements:

- (i) Roy studies History and Political Science.
- (ii) Roy studies in Oxford University.

Conclusions:

- (A) Roy studies History and Political Science in Oxford University.
- (B) Roy studies Social Science.
- (C) Roy does not study History.
- (D) Roy does not study Political Science.

Direction : In question numbers 7 to 15, find the odd word/letters/numbers/number pair from the given alternatives.

7.

- A. LKJI
- B. HGFE
- C. UVWX
- D. SRQP

8.

- A. 2709
- B. 8314
- C. 2518
- D. 3249

9.

- A. Rectangle
- B. Circle
- C. Triangle
- D. Cone

10.

- A. (23,14)
- B. (82,29)
- C. (45,18)
- D. (36,27)

11.

- A. Legumes : Nodules
- B. Beans : Pulses
- C. Rice : Cereals
- D. Tea : Beverages

12.

- A. WUSP
- B. MKIG
- C. ZXVT

D. SQOM

13.

- A. Wrong
- B. Psychology
- C. Fast**
- D. Knock

14.

- A. 76
- B. 56
- C. 36**
- D. 66

15.

- A. UTV**
- B. IFH
- C. NKM
- D. DAC

Directions : In question numbers 16 to 19, select the missing numbers from the given responses.

16. ✓

4	8	16	32
5	15	?	135
6	24	96	384

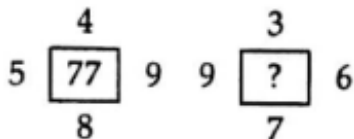
- A. 80
- B. 30
- C. 32
- D. 45**

17. ✓

874		
1	3	5
2	4	6
3	1	9
1	7	?

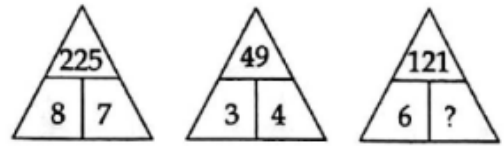
- A. 8
- B. 2**
- C. 4
- D. 6

18.



- A. 73
- B. 75**
- C. 77
- D. 79

19.



- A. 5**
- B. 4
- C. 21
- D. 20

Directions : In question numbers 20 to 23, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

20. $6 + \sqrt{216}; 7 + \sqrt{343}; 8 + \sqrt{512}; 9 + \sqrt{729};$
 $\underline{\hspace{1cm}}$

- (A) $10 + \sqrt{10^5}$
- (B) $10 + \sqrt{100}$
- (C) $10 + \sqrt{1000}$**
- (D) $10 + \sqrt{10000}$

21. AZ, CX, FU, ?.

- A. KP
- B. IR
- C. IV
- D. JQ**

22. Y, T, P, ?, K

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

23. 4, 11, 17, 22, ?, 29, 31, 32

- A. 27
- B. 23
- C. 24
- D. 26**

24. Choose the similar group of numbers

on the basis of certain common properties they possess

:

(72, 66, 96)

- A. (55, 66, 77)
- B. (63, 70, 86)
- C. (54, 57, 78)
- D. (24, 69, 58)

25. If it is possible to form a word with the first, fourth, seventh and eleventh letters in the word 'SUPERFLUOUS', write the first letter of that word.

- A. E
- B. S
- C. L
- D. O

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

- A. mabam
- B. abmab
- C. mbabm
- D. ambbm

27. If SUNDAY = 18, MONSOON = 21, YEAR = 12, then THURSDAY = ?

- A. 42
- B. 28
- C. 24
- D. 26

28. Two statements 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 commonly known facts. You have to decide which of the given conclusion/ assumptions, if any, follows from the given statements.

Statements :

- (i) Some papers are pens.
- (ii) All the pencils are pens.

Conclusions :

- I. Some pens are pencils.

II. Some pens are papers.

- A. Both I and II follow
- B. Only I conclusion follows
- C. Only II conclusion follows
- D. Either I or II follows

29. If Ramya's rank is 22nd out of 46 students. What is her rank from the last ?

- A. 32
- B. 24
- C. 26
- D. 29

30. The mall is 250 meters north-west of the market. The school is 250 meters south-west of the market. In which direction is the school from the mall ?

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

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

- 1. India
- 2. Bangalore
- 3. Asia
- 4. Karnataka

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

32. If P denotes \div , Q denotes \times , R denotes $+$ and S denotes $-$, then $16Q12P6R5S4 = ?$

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

33. After going 80 m from his house towards east, a person turns left and goes 20 m, then turns right and moves 100 m, then turns left and goes 60 m,

then turns right and goes 120 m to reach the park. What is the distance between his house and the park?

- A. 20 m
- B. 100 m
- C. 80 m
- D. 120 m

Directions : In question numbers 34 to 41, select the related word/letters/numbers from the given alternatives.

34. Carpentry : Skill : ? : Talent

- A. Plumbing
- B. Driving
- C. Masonry
- D. Singing

35. SUMO : PRJL :: TAXI : ?

- A. QDVF
- B. QXUF
- C. QDNF
- D. WDXJ

36. KcaC : Cack :: XgmF : ?

- A. Gmef
- B. EmgF
- C. EgmX
- D. FmgX

37. 42 : 20 :: 64 : ?

- A. 34
- B. 31
- C. 32
- D. 33

38. $\frac{1}{4} : \frac{1}{8} :: \frac{2}{3} : \underline{\quad ? \quad}$

- (A) 1
- (B) $\frac{1}{4}$
- (C) $\frac{1}{3}$
- (D) $\frac{1}{2}$

39. Concord : Agreement :: Discord : ?

- A. Conflict
- B. Association

- C. Blended
- D. Comparison

40. Female : Feminine :: Male : ?

- A. Masculine
- B. Macho
- C. Manager
- D. Man

41. PS : VY :: FI : ?

- A. WZ
- B. LO
- C. UX
- D. VZ

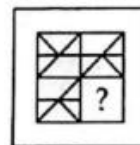
Directions: In question numbers 42 and 43, arrange the following words as per order in the dictionary.

- 42.
1. Necessary
 2. Navigate
 3. Nautical
 4. Naval

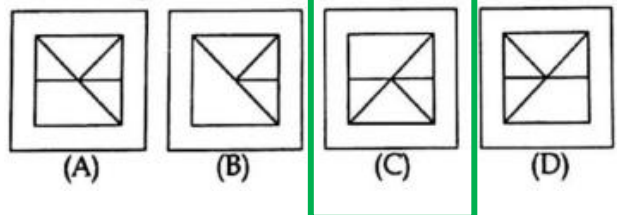
- 43.
1. Range
 2. Rain
 3. Rein
 4. Ranger

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

Question figure

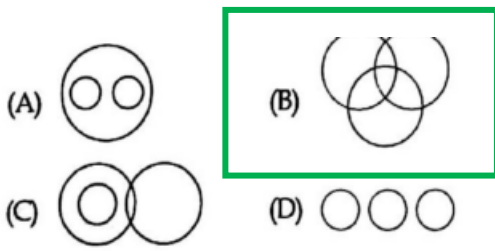


Answer figures



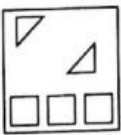
45. Which figure will best represent the relationship amongst the three classes?

Boy, Sportsman, Student

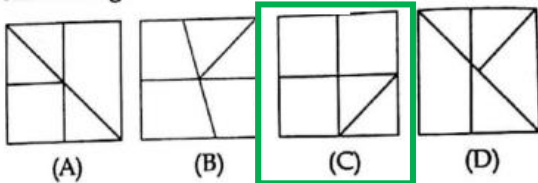


46. Identify the answer figure from which the pieces given in the question figure have been cut.

Question figure

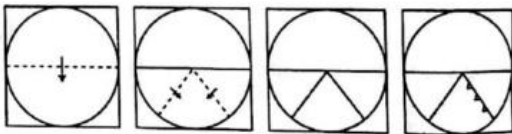


Answer figures

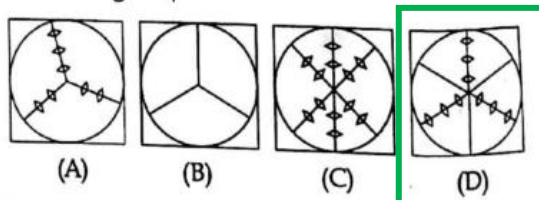


47. A piece of paper if folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened?

Question figures



Answer figures



48. 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., 'I' can be represented by 00, 14 etc., and 'N' can be represented by 59, 68 etc. Similarly, you have to identify the set for the word 'ROAD'.

Matrix / आव्यूह - I

	0	1	2	3	4
0	I	M	W	S	Q
1	M	W	S	Q	I
2	W	S	Q	I	M
3	S	Q	I	M	W
4	Q	I	M	W	S

Matrix / आव्यूह - II

	5	6	7	8	9
5	O	A	D	R	N
6	A	D	R	N	O
7	D	R	N	O	A
8	R	N	O	A	D
9	N	O	A	D	R

- A. 67, 57, 96, 56
- B. 96, 67, 56, 57
- C. 67, 96, 56, 57**
- D. 56, 67, 57, 96

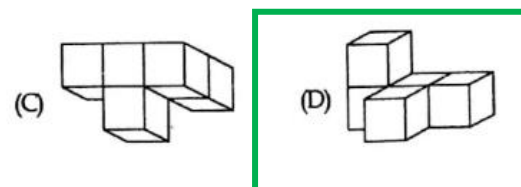
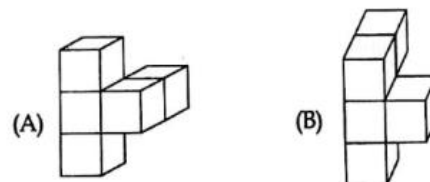
49. The image of a clock in a mirror is seen as 3.15. What is the right time ?

- A. 7.45
- B. 9.45
- C. 8.45**
- D. 10.45

50.



The solid so formed by joining unit cubes is rotated to obtain different positions, which of these cannot be the shape after it has turned ?



Part – II English Language

Directions : In question numbers 51 to 54, 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.

51. The economic _____ has affected our sales tremendously.

- A. slowdown
- B. crackdown
- C. touchdown
- D. showdown

52. As the doctor _____ into the room, the nurse handed him the temperature chart of the patient.

- A. was coming
- B. comes
- C. is coming
- D. came

53. All orders must _____ the rules.

- A. conforms to
- B. conforming with
- C. conforms with
- D. conform to

54. She failed to _____ to her name.

- A. shine up
- B. keep up
- C. rise up
- D. line up

Directions : In questions numbers 55 to 58, a part of the sentence is underlined. Below are given alternatives to the underlined part at (A), (B), (C) which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is (D). Mark your answer in the Answer Sheet.

55. She had realized that she had seen

him before.

- A. had been realized
- B. realized
- C. has realized
- D. No improvement

56. Being ill, he cam to work.

- A. He came to work and fell ill
- B. Despite coming to work, he was ill
- C. In spite of being ill, he came to work
- D. No improvement

57. Hundreds of children are deaf born every year.

- A. deaf are born every
- B. every born are deaf
- C. are born deaf every
- D. No improvement

58. She is willing to help you.

- A. wilful
- B. willingly
- C. wilfully
- D. No improvement

Directions : In question numbers 59 to 62, choose the word opposite in meaning to the given word and mark in the Answer Sheet.

59. Bizarre

- A. Ordinary
- B. Comical
- C. Droll
- D. Ridiculous

60. Guilty

- A. Innocent
- B. Sorry
- C. Dubious
- D. Honest

61. Appoint

- A. Yield
- B. Disunite

C. Dismiss

D. Reward

62. Accusation

A. Felicitation

B. Exculpation

C. Encouragement

D. Complaint

Directions : In question number 63 to 66, 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.

63.

A. humaen

B. humain

C. humane

D. humein

64.

A. Padestrain

B. Pedistrain

C. Pedestrean

D. Pedestrian

65.

A. laboratery

B. laborratory

C. laboratory

D. laboratorry

66.

A. Ecuanemous

B. Ecuanimous

C. Equanimous

D. Equannamous

Directions : In question numbers 67 to 76, 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.

In civilised life there is a rule 67 violence, against taking the 68 into our hands. It is rule which 69 of us observe so often, indeed, that a great 70 of people go through life 71 orderliness

and non-violence as part of the scheme of nature. But when 72 comes into their midst 73 refuses to observe the current rules, and 74 the simple rule that might is right, the law-abiding members 75 society do not know what to do, and look on in 76 bewildered confusion.

67.

A. at

B. against

C. upon

D. after

68.

A. people

B. rule

C. law

D. police

69.

A. none

B. many

C. every

D. most

70.

A. number

B. capacity

C. sun

D. amount

71.

A. expecting

B. not accepting

C. accepting

D. not expecting

72.

A. any one

B. none

C. everyone

D. no one

73.

A. how

B. where

C. whom

D. who

74.

A. followed

B. follows

C. follow

D. following

75.

A. at

B. in

C. on

D. of

76.

A. helped

B. helpless

C. helpful

D. helping

Directions : In question numbers 77 to 80, 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.

77. One who compiles a dictionary.

A. Bibliographer

B. Lapidist

C. Lexicographer

D. Cartographer

78. Art of working with metals.

A. Metallurgy

B. Metalloid

C. Meteorite

D. Metaphysics

79. A gathering at a religious place.

A. Mob

B. Audience

C. Congregation

D. Spectators

80. A place where birds are kept.

A. Sanctuary

B. Apiary

C. Aquarium

D. Aviary

Directions : In question numbers 81 to 84,

the first and the last Part of 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.

81. 1. The students

P. touched the

Q. arrived and

R. their teachers

S. feet of

6. with reverence

A. QPSR

B. QPRS

C. QRSP

D. RQSP

82. 1. This summer was the most

P. to believe that next

Q. and we have reason

R. scorching in living memory

S. year and the year after

6. will be hotter still

A. SPQR

B. QSPR

C. RQPS

D. SRPQ

83. 1. The watchman

P. and found two thieves

Q. woke up when

R. with black masks

S. he heard the dog barking

6. trying to get in.

A. PQRS

B. QSPR

C. SPQR

D. QSRP

84. 1. Falcons have sharp angular wings

P. to dive sharply

Q. and allow them

R. to chase their prey

S. that give them the speed

6. to capture their victims

- A. PRSQ
- B. SRQP**
- C. SQPR
- D. QPRS

Directions : In question numbers 85 and 86, a sentence has been given in Active / Passive Voice. Out of the four alternatives suggested, select the one which best express the same sentence in Passive / Active Voice and mark your answer in the Answer Sheet.

85. He will not use the computer

- A. The use of the computer will not be by him
- B. The computer he will not use
- C. By him the computer will not be used
- D. The computer will not be used by him**

86. The boys were making kites.

- A. Kites are made by the boys.
- B. The boys had made kites.
- C. Kites are being made by the boys.
- D. Kites were being made by the boys.**

Directions : In question numbers 87 and 88, a sentence has been given in Direct / Indirect. Out of the four alternatives suggested, selected the one which best expresses the same sentence in Indirect / Direct and mark your answer in the Answer Sheet.

87. The Policeman said to the driver, " Do you have a licence?"

- A. The policeman asked the driver whether he had had a licence.
- B. The policeman asked the driver whether he has a licence.
- C. The policeman asked the driver whether he have a licence.
- D. The policeman asked the drive whether he had a licence.**

88. The teacher said to the students, "March quietly to the ground."

A. The teacher instructed the students that they must march quietly to the ground.

B. The teacher instructed the students to march quietly to the ground.

C. The teacher said to the students that they should march quietly to the ground.

D. The teacher instructed the students that they should march quietly to the ground.

Directions : In question numbers 89 to 92, 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 letter (A), (B), (C). If a sentence is free from error, blacken the circle corresponding to (D) in the Answer Sheet.

89. make what you write / and say more /
 (A) (B)
absorbed and engrossing. / No error
 (C) (D)

90. One must / obey one's / teachers. / No error
 (A) (B) (C) (D)

91. They came here in / the evening and begin making /
 (A) (B)
further arrangements. / No error
 (C) (D)

92. She always fed / her childrens /
 (A) (B)
before she fed her dog. / No error
 (C) (D)

Directions : In question numbers 93 to 96, 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. Feeble

- A. Pretty
- B. Small
- C. Weak**
- D. Playful

94. Pawn

governed by the gnomes of Zurich.

- A. Hire
- B. Pledge
- C. Sponge
- D. Scrounge

- A. big international bankers
- B. guardians of treasure
- C. witchcraft of Zurich
- D. foreign leaders

95. Maestro

- A. Employee
- B. Novice
- C. Genius
- D. Admirer

96. Chastise

- A. Monitor
- B. Chase
- C. Praise
- D. Upbraid

Directions : In question numbers 97 to 100, four alternatives are given for the Idiom\Phrases underlined. Choose the alternative which best expresses the meaning of the Idiom\Phrases and mark it in the Answer Sheet.

97. To put in a nut-shell.

- A. To place something
- B. To be blunt about something
- C. To be long and exhaustive about something
- D. To state something very concisely

98. To make up one's mind.

- A. To remind oneself of something
- B. To think creatively
- C. To decide what to do
- D. To remember things clearly

99. Nowadays it has become a fashion to take French Leave.

- A. Absenting oneself without permission
- B. Taking leave to go to France
- C. Seeking permission from French Embassy
- D. Saying goodbye in French style

100. International monetary affairs are

Part – III Quantitative Aptitude

101. If A, B and C be the angles of a triangle, then out of the following, the incorrect relation is :

(A) $\cot\left(\frac{A+B}{2}\right) = \tan\frac{C}{2}$

(B) $\sin\frac{A+B}{2} = \cos\frac{C}{2}$

(C) $\cos\left(\frac{A+B}{2}\right) = \sin\frac{C}{2}$

(D) $\tan\left(\frac{A+B}{2}\right) = \sec\frac{C}{2}$

102. The volume of a right circular cone which is obtained from a wooden cube of edge 4.2 dm wasting minimum amount of wood is :

- A. 19.404 cu.dm
- B. 19404.4 cu.dm
- C. 19404 cu.dm
- D. 194.04 cu.dm

103. A merchant has 1000 kg sugar, part of which he sells at 8% profit and the rest at 18%. He gains 14% on the whole. The quantity sold at 8% profit is :

- A. 640 kg
- B. 400 kg
- C. 560 kg
- D. 600 kg

104. A man purchased an article for Rs 1500 and sold it at 25% above the cost price. If he has to pay Rs 75 as tax on it, his net profit percentage will be :

- A. 30%
- B. 15%
- C. 20%
- D. 25%

105. If $x = a(b-c)$, $y = b(c-a)$, $z = c(a-b)$, then the value of $\left(\frac{x}{a}\right)^3 + \left(\frac{y}{b}\right)^3 + \left(\frac{z}{c}\right)^3$ is:

(A) 0

(B) $\frac{3xyz}{abc}$

(C) $\frac{2xyz}{abc}$

(D) $\frac{xyz}{abc}$

106. After allowing a discount of 20%, a radio is available for Rs 1200. Its marked price was :

- A. Rs 1800
- B. Rs 1400
- C. Rs 1550
- D. Rs 1500

107. If a man were to sell his hand-cart for Rs 720, he would lose 25%. At what price must he sell it to gain 25% ?

- A. Rs 1152
- B. Rs 768
- C. Rs 1200
- D. Rs 960

108. Length of each edge of a regular tetrahedron is 1cm. Its volume is :

(A) $\frac{\sqrt{2}}{6}$ cu.cm,

(B) $\frac{1}{12}\sqrt{2}$ cu.cm,

(C) $\frac{\sqrt{3}}{12}$ cu.cm,

(D) $\frac{1}{4}\sqrt{3}$ cu.cm,

109. If $\frac{a}{b} + \frac{b}{a} = 2$, then the value of $a - b$ is :

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

110. A can do in one day three times the work done by B in one day. They together finish $\frac{2}{5}$ of the work in 9 days. The number of days by which B can do the work alone is :

- A. 100 days
 B. 30 days
C. 90 days
 D. 120 days

111. The ratio of syrup and water in a mixture is 3:1, then the percentage of syrup in this mixture is :

- (A) $66\frac{2}{3}\%$ (B) $33\frac{1}{3}\%$
(C) 75% (D) 25%

112. Base of a right prism is a rectangle, the ratio of whose length and breadth is 3:2. If the height of the prism is 12 cm and total surface area is 288 sq.cm , the volume of the prism is :

- A. 290 cm^3
 B. 286 cm^3
 C. 291 cm^3
D. 288 cm^3

113. If Rahim deposited the same amount of Rs x in a bank at the beginning of successive 3 years and the bank pays simple interest of 5% per annum, then the amount at his credit at the end of 3rd year will be :

- (A) ₹ $\frac{21}{20}x$ (B) ₹ $\frac{26481}{8000}x$
 (C) ₹ $\frac{861}{400}x$ (D) ₹ $\frac{1261}{400}x$

114. If $\tan\theta + \sec\theta = 3$, θ being acute, the value of $5 \sin\theta$ is :

- (A) $\frac{5}{\sqrt{3}}$ (B) 4
 (C) $\frac{5}{2}$ (D) $\sqrt{\frac{3}{5}}$

115. The numerical value of

$$\frac{9}{\operatorname{cosec}^2\theta} + 4 \cos^2\theta + \frac{5}{1 + \tan^2\theta} :$$

- A. 9**
 B. 4
 C. 5
 D. 7

116. The quotient when 10^{100} is divided by 5^{75} is :

- A. 2^{75}
B. $2^{75} \times 10^{25}$
 C. $2^{25} \times 10^{75}$
 D. 10^{25}

117. A number x is divisible by 7. When this number is divided by 8, 12 and 16, it leaves a remainder 3 in each case. The least value of x is :

- A. 150
B. 147
 C. 148
 D. 149

118. In ΔABC , $\angle B = 90^\circ$, $AB = 8 \text{ cm}$ and $BC = 15 \text{ cm}$ then $\sin C = ?$

- A. $15/8$
 B. $8/15$
 C. $15/17$
D. $8/17$

119. If ABCD be a rhombus, AC is its smallest diagonal and $\angle ABC = 60^\circ$, find length of a side of the rhombus when $AC = 6 \text{ cm}$.

- A. $6\sqrt{2}$ cm
- B. $3\sqrt{3}$ cm
- C. 6 cm**
- D. 3 cm

120. If $\frac{x}{y} = \frac{a+2}{a-2}$, then the value of $\frac{x^2 - y^2}{x^2 + y^2}$ is:

- (A) $\frac{4a}{a^2 + 4}$**
- (B) $\frac{2a}{a^2 + 4}$
- (C) $\frac{4a}{a^2 + 2}$
- (D) $\frac{2a}{a^2 + 2}$

121. At what rate of compound interest per annum will a sum of Rs 1200 become Rs 1348.32 in 2 years ?

- A. 7%
- B. 6%**
- C. 7.5%
- D. 6.5%

122. A candidate who gets 20 % marks in an examination, fails by 30 marks. But if he gets 32% marks, he gets 42 marks more than the minimum pass marks. Find the pass percentage of marks.

- A. 25%**
- B. 12%
- C. 52%
- D. 20%

123. If $\sqrt{y} = 4x$, then $\frac{x^2}{y}$ is:

- A. 1/4
- B. 4
- C. 2
- D. 1/16**

124. Let ABC be a triangle and AD be the perpendicular from the vertex A on the side BC such that $AD^2 = BD \cdot CD$. Then measure of $\angle BAC$ is:

- A. 75°
- B. 120°
- C. 100°

D. 90°

125. Successive discounts of 20% and 10% are equivalent to a single discount of

- A. 25%
- B. 30%
- C. 15%
- D. 28%**

126. The average of 12 numbers is 15 and the average of the first two is 14. What is the average of the rest ?

(A) 14

(B) $14\frac{1}{5}$

(C) 15

(D) $15\frac{1}{5}$

127. Measure of each interior angle of a regular hexagon is :

- A. 45°
- B. 120°**
- C. 100°
- D. 60°

128. If $x=y=z$, then $\frac{(x+y+z)^2}{x^2+y^2+z^2}$ is:

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

129. The Vulgar fraction of $0.\overline{3939}$ is:

- A. 17/39
- B. 13/33**
- C. 15/33
- D. 11/39

130. A plate on square base made of brass is of length x cm and width 1 mm. The plate weighs 4725 gm. If 1 cubic cm of brass weighs 8.4 gram, then the value of x is :

- A. 72
- B. 74
- C. 75**
- D. 76

131. $\angle A$ of $\triangle ABC$ is a right angle. AD is perpendicular on BC . If $BC = 14$ cm and $BD = 5$ cm, then measure of AD is:

- A. $3\sqrt{5}$ cm**
- B. $3.5\sqrt{5}$ cm
- C. $2\sqrt{5}$ cm
- D. $\sqrt{5}$ cm

132. How much $66\frac{2}{3}\%$ of ₹ 312 exceeds ₹ 200?

- A. Rs 8**
- B. Rs 104
- C. Rs 96
- D. Rs 4

133. In a circle with center at $O(0,0)$ and radius 5 cm, AB is a chord of length 8 cm. If OM is perpendicular to AB , then the length of OM is :

- A. 4 cm
- B. 1 cm
- C. 2.5 cm
- D. 3 cm**

134. A man travels for 5 hours 15 minute. If he covers the first half of the journey at 60 km/h and rest at 45 km/h. Find the total distance travelled by him.

- (A) 378 km,
- (B) 270 km**
- (C) $1028\frac{6}{7}$ km,
- (D) 189 km

135. Two trains start at the same time from A and B and proceed toward each other at the speed of 75 km/hr and 50 km/hr respectively. When both meet at a point in between, one train found to be travelled 175 km more than the other. Find the distance between A and B.

- A. 758 km
- B. 857 km
- C. 875 km**
- D. 785 km

136. If the ratio of principal and the simple interest of 5 years is 10 : 3, then the rate of interest is :

- A. 8%
- B. 3%
- C. 5%
- D. 6%**

137. Among the following statements, the statement which is not correct is :

- A. Every real number is a rational number**
- B. Every integer is a rational number
- C. Every natural number is an integer
- D. Every natural number is a real number

138. In $\triangle ABC$, $AD \perp BC$ and $AD^2 = BD \cdot DC$. The measure of $\angle BAC$ is:

- A. 90°**
- B. 45°
- C. 60°
- D. 75°

139. The average expenditure of a man for the first five months is Rs 1200 and for the next seven months is Rs 1300. If he saves Rs 2900 in that year, his monthly average income is :

- A. Rs 1700
- B. Rs 1400
- C. Rs 1500**
- D. Rs 1600

140. If $\cos\theta = \frac{p}{\sqrt{p^2 + q^2}}$, then the value of $\tan\theta$ is :

(A) $\frac{p}{p^2 + q^2}$

(B) $\frac{q}{\sqrt{p^2 + q^2}}$

(C) $\frac{q}{\sqrt{p^2 - q^2}}$

(D) $\frac{p}{q}$

141. A, B and C can complete a piece of work in 24, 5 and 12 days respectively. Working together, they will complete the same work in :

(A) 4 days

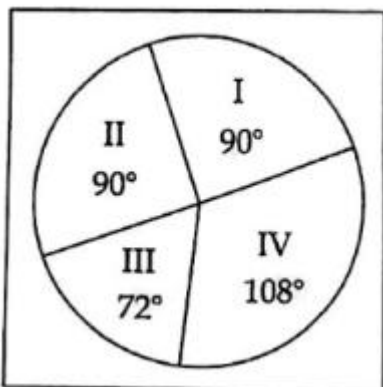
(B) $\frac{1}{24}$ days

(C) $\frac{7}{24}$ days

(D) $3\frac{3}{7}$ days

The total expenditure of a company for a particular month is Rs 60,000. The various heads of expenditure I to IV are indicated in a pie chart below. These heads are :

- I. Raw materials
- II. Conveyance
- III. Electricity
- IV. Overhead expenses



Study the pie chart and answer Question No. 142 to 145.

142. What percentage of total expenditure is on electricity ?

- A. 30%
- B. 20%**
- C. 23%
- D. 25%

143. What percentage of total expenditure is on raw materials ?

- A. 60%
- B. 23%
- C. 25%**
- D. 30%

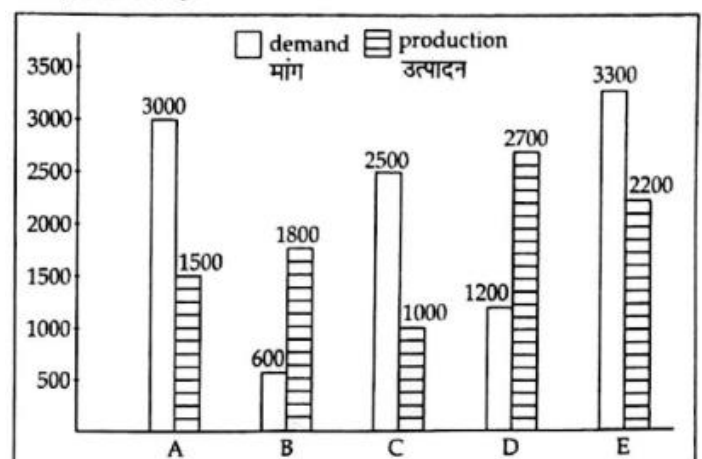
144. What is the amount spent on overhead expenses ?

- A. Rs 18,000**
- B. Rs 10,000
- C. Rs 12,000
- D. Rs 15,000

145. Total expenditure on conveyance is :

- A. Rs 20,000
- B. Rs 10,000
- C. Rs 12,000
- D. Rs 15,000**

The following chart represents Demand and Production for 5 companies ABCDE.



On the basis of the graph answer Question No. 146-150.

146. If a company A desires to meet the

demand by purchasing surplus production of a company, then the most suitable company is :

- A. E
- B. B
- C. C
- D. D**

147. The ratio of the number of companies having more demand than production to those having more production than demand is :

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

148. The difference between average demand and average production of the five companies taken together is :

- A. 130
- B. 620
- C. 400
- D. 280**

149. If the production of company D is h times of the production of company A. Then h equals :

- A. 1.2
- B. 1.8**
- C. 1.5
- D. 2.5

150. If x % of demand for company C equals demand for company B, then x equals :

- A. 60
- B. 4
- C. 24**
- D. 20

Part-IV – General Awareness

151. The Lalit Kala Akademi is devoted to the promotion of:

- A. Music
- B. Dance and Drama
- C. Fine Arts**
- D. Literature

152. Which Article of the Indian Constitution deals With Election Commission

- A. Article 360
- B. Article 324**
- C. Article 352
- D. Article 356

153. How much of world's surface is covered by water?

- A. 80%
- B. 25%
- C. 55%
- D. 70%**

154. All forms of ROM are also Known as

- A. Firmware**
- B. shareware
- C. freeware
- D. Middleware

155. What is the number of players on each side in Rugby football?

- A. 12
- B. 11
- C. 15**
- D. 16

156. Which was the first linguistic state be created?

- A. Andhra Pradesh**
- B. Maharashtra
- C. Kerala
- D. Tamil Nadu

157. Who is the author of book "Romancing with Life"?

- A. Shashi Tharoor
- B. Bill Clinton
- C. Kapil dev
- D. Dev Anand**

158. Among the following districts of Tamil Nadu, which district is unfit for cultivation due to increased.

- A. Nagapattinam
- B. Ramanthapuram**
- C. Coimbatore
- D. Tiruchiraplli

159. Natural system of classification was proposed by _____ botanists .

- A. Swedish**
- B. British
- C. Indian
- D. German

160. Amino acids are required for the synthesis of :

- A. Proteins**
- B. Carbohydrates
- C. Alkaloids
- D. Lipids

161. The "King of Metals" is :

- A. Iron
- B. Aluminium
- C. Gold**
- D. Silver

162. Blowing Air with open pipe is an example of :

- A. Isobaric process
- B. Adiabatic process
- C. Isothermal process**
- D. Isochoric process

163. Which of the following Scientist proved that part of each planet around the sun is elliptical

- A. Newton

- B. Copernicus
- C. Kepler**
- D. Galileo

164. In which of the Round Table Conference Mahatma Gandhi participated?

- A. First Round Table Conference, 1930
- B. Second Round Table Conference, 1931**
- C. Third Round Table Conference 1932
- D. All of the above

165. Transpiration increases in:

- A. Cool, damp and windy condition
- B. Cool, dry and still condition
- C. Hot, dry and windy condition**
- D. Hot, damp and windy condition

166. Who discovered the link between electricity and magnetism?

- A. Diesel
- B. Michael Faraday**
- C. Volta
- D. Maxwell

167. The most suitable unit for expressing nuclear radius is:

- A. Angstrom
- B. Micron
- C. Nanometre
- D. Fermi**

168. Which of the following phenomenon helps to conclude that light is transverse wave ?

- A. Polarisation**
- B. Refraction
- C. Interference
- D. Diffraction

169. Minamata disease is caused by

pollution of water by:

- A. methyl isocyanate
- B. mercury**
- C. lead
- D. tin

170. When price of a substitute of commodity 'x' falls the demand for 'x' :

- A. Increases at increasing rate
- B. rises
- C. falls**
- D. remains unchanged

171. The most abundant element by number in the living system is:

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

172. Who composed the Allahabad Pillar inscription ?

- A. Veerasena
- B. Vishnusena
- C. Harisena**
- D. Mahasena

173. Plank's constant has the dimensions of

- A. angular momentum**
- B. force
- C. energy
- D. linear momentum

174. If the President wants to resign, he shall address his letters of resignation to:

- A. Speaker of Lok Sabha
- B. Chief Justice of India
- C. Prime Minister of India
- D. Vice-President of India**

175. By whom was the autonomous investment separated from induced investment ?

- A. Joan Robinson
- B. Adam Smith
- C. Schumpeter**
- D. Malthus

176. World wide life fund was founded in:

- A. 1992
- B. 1961**
- C. 1965
- D. 1969

177. Christmas factor is involved in:

- A. Digestion
- B. Respiration
- C. Blood Coagulation**
- D. Excretion

178. Who built the famous Shiva temple at Ellora ?

- A. Gupta King Samudra Gupta
- B. Chalukyan King Pulikeshi II
- C. Rashtrakuta Rular Krishna I**
- D. Mauryan Emperor Ashoka

179. Kimono is a dress style of which Asian Country?

- A. Laos
- B. China
- C. Japan**
- D. Korea

180. If xylem and phloem are arranged in the same radius, such a vascular bundle is called:

- A. concentric
- B. radial
- C. collateral**
- D. bicollateral

181. When was League of Nations established ?

- A. 1939
- B. 1914
- C. 1918
- D. 1920**

182. The headquarters of the Survey of India Dept. (department) is located at:

- A. Hyderabad
- B. New Delhi
- C. Jaipur
- D. Dehradun**

183. Kathakali is a dance prevalent in which state ?

- A. Tamil Nadu
- B. Orissa
- C. Kerala**
- D. Andhra Pradesh

184. Todar Mal, the brilliant revenue officer served under:

- A. Humayun
- B. Baz Bahadur
- C. Sher Shah**
- D. Bhagwan Das

185. Where did the Black-Hole tragedy took place ?

- A. Murshidabad
- B. Dacca
- C. Monghyr
- D. Calcutta**

186. The simplest CPU – scheduling algorithm is _____.

- A. Multilevel scheduling algorithm
- B. FCFS Scheduling algorithm**
- C. SJF Scheduling algorithm
- D. Round – robin scheduling algorithm

187. Iron fillings can be separated from a heterogenous mixture using the technique of:

- A. Sedimentation
- B. Evaporation
- C. Sublimation
- D. Magnetization**

188. The first Bio-sphere Reserve in India has been established in :

- A. Nanda devi
- B. Hazaibagh
- C. Kanha
- D. Nilgiri**

189. The largest reservoir of fresh water is:

- A. Ponds
- B. Lakes
- C. Glaciers**
- D. Ground Water

190. India born Vijai Sheshadri won the prestigious 2014 Pulitzer prize in which of the following categories?

- A. Drama
- B. Journalism
- C. Music
- D. Poetry**

191. What is Kyoto Protocol ?

- A. It is an agreement among countries to start using nuclear energy
- B. It is an agreement among countries to take steps for reducing global warming**
- C. It is an agreement among countries to take steps for reducing acid rain
- D. It is an agreement to control pollution

192. Arundhati Roy is the author of:

- A. The Tin Drum
- B. My Childhood Days
- C. God of Small Things**
- D. Disgrace

193. Earth day is celebrated on:

- A. September 17
- B. February 16
- C. April 4
- D. April 22**

194. Which of the following rivers originates from Trans Himalayas ?

- A. Saraswathi
- B. Ganga
- C. Yamuna

D. Sindu

195. The time element in price analysis was introduced by :

- A. J.S. Mill
- B. J.R. Hicks
- C. J.M. Keynes
- D. Alfred Marshall**

196. Mixed Economy means:

- A. Co-existence of rich and poor
- B. Co-existence of small and large Industries
- C. Promoting both agriculture and Industries in the economy
- D. Co-existing of public and private sectors**

197. A demand curve will not shift:

- A. When there is a change in advertisement expenditure**
- B. When only price of the commodity changes
- C. When only income changes
- D. When only prices of substitute products change

198. The amount of matter in a ball of steel is its:

- A. Density
- B. Volume
- C. Weight
- D. Mass**

199. Dr. P. Rama Rao Committee is related to which of the following ?

- A. Industry
- B. Agriculture
- C. Taxes
- D. Defence**

200. Rand is the currency of:

- A. Romania
- B. Norway
- C. Namibia
- D. Iran