

GENERAL INTELLIGENCE & REASONING

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

1. Yes : No :: Alive : ?
(1) Life (2) Live
(2) Dead (4) Funeral
2. Today : Day before yesterday :: January : ?
(1) December (2) February
(3) November (4) March
3. Man : House :: ?
(1) Cat : Mouse
(2) Beast : Den
(3) Tree : Plant
(4) Cage : Rat
4. AD : NQ :: EH : ?
(1) RT (2) RU
(3) RS (4) RV
5. AZB : BYC :: MVN : ?
(1) NUO (2) NVO
(3) NVQ (4) NRQ
6. BEHI : JMPQ :: KNQR : ?
(1) SUXY (2) RUXY
(3) RVXY (4) RUYX
7. 625 : 25 :: 225 : ?
(1) 13 (2) 14
(3) 15 (4) 16
8. 49 : 216 :: 36 : ?
(1) 25 (2) 125
(3) 625 (4) 3125
9. 2, 4, 2 : 4, 16, 4 :: 1, 1, 1 : ?
(1) 2, 4, 2 (2) 1, 1, 1
(3) 2, 2, 2 (4) 2, 13, 2

Directions (10-18) : In each of the following questions, select the one which is different from the other three responses.

10. (1) Wood (2) Cork
(3) Stone (4) Paper
11. (1) Rain (2) Cloud
(3) Mist (4) Fog
12. (1) Lawyer (2) Carpenter
(3) Doctor (4) Engineer

13. (1) M (2) N
(3) O (4) P
14. (1) CFH (2) LOQ
(3) XAC (4) KMO
15. (1) PCAQ (2) LKIN
(3) XGEZ (4) DWUF
16. (1) 23 (2) 37
(3) 9 (4) 17
17. (1) 92 - 99 (2) 48 - 54
(3) 58 - 64 (4) 89 - 95
18. (1) 13 - 31 (2) 71 - 88
(3) 45 - 54 (4) 16 - 61

Directions : Arrange the following words according to English Dictionary.

19. (A) PREMONITION
(B) PRELUDE
(C) PREMICE
(D) PRELIMINARY
(E) PREMIUM
(1) DBAEC (2) BDCEA
(3) DBCEA (4) BDACE

Directions (20-21) : In each of the following questions, which one of the given responses would be a meaningful order of the following words in ascending order ?

20. 1. Word 2. Paragraph
3. Sentence 4. Letter
(1) 1, 3, 4, 2
(2) 1, 4, 3, 2
(3) 3, 4, 1, 2
(4) 4, 1, 3, 2
21. 1. Stem
2. Flower
3. Root
4. Leaves
5. Fruit
(1) 3, 1, 4, 2, 5
(2) 3, 1, 5, 2, 4
(3) 4, 3, 1, 5, 2
(4) 5, 2, 1, 4, 3

22. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?
a _ bcaa _ caa _ _
(1) a b c c (2) a b a c
(3) a a b c (4) b a a c

Directions (23 - 26) : In each of the following questions, choose the correct alternative from the given ones that will complete the series.

23. J, Q, I, R, H, S, ?, ?
(1) F T (2) G T
(3) H U (4) K T
24. CFL, EIK, G J, IOI, ?
(1) KRH (2) KRJ
(3) JRH (4) KQH
25. 256, 16, 4, ?
(1) 8 (2) 6
(3) 2 (4) 4
26. 1, 6, 13, 22, ?, 46
(1) 32 (2) 33
(3) 40 (4) 43
27. Find the wrong number in the given series.
41, 41, 42, 44, 48, 51, 56.
(1) 48 (2) 51
(3) 56 (4) 41
28. A and B are the young ones of C. If C is the mother of B, but A is not the daughter of C, then what is the relationship between C and A ?
(1) Nephew and Aunt
(2) Brother and Sister
(3) Mother and Son
(4) Niece and Aunt
29. There are five friends Shailendra, Keshav, Madhav, Ashish and Rakesh. Shailendra is shorter than Keshav but taller than Rakesh, Madhav is the tallest. Ashish is a little shorter than Keshav and little taller than Shailendra. Who is the shortest ?
(1) Rakesh (2) Shailendra
(3) Ashish (4) Keshav
30. From the given alternatives select the word which **cannot** be formed using the letters of the given word.
LAUGHTER
(1) GATE (2) RATE
(3) HATE (4) GRUNT

31. A group of alphabets are given with each being assigned a number. These have to be unscrambled into a meaningful word and correct order of letters may be indicated from the given responses.

A R K H S

1 2 3 4 5

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

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

32. PROHIBITION is coded as 68032124205. How will you code INHIBITION ?

(1) 2531214205

(2) 2532125205

(3) 2542124205

(4) 2532124205

33. Which interchange of signs or numbers will make the following equation correct ?

$(7 + 2) \times 3 \times 4 - 1 = 20$

(1) 2 and 3 (2) \times and $-$

(3) 7 and 3 (4) $+$ and \times

34. Some equations are solved on the basis of a certain system. On the same basis, find out the correct answer for the unsolved equation.

$7 \times 8 \times 3 = 873$

$5 \times 9 \times 4 = 954$

$2 \times 7 \times 5 = ?$

(1) 572 (2) 752

(3) 257 (4) 725

35. Select the correct combination of mathematical signs to replace * signs and to balance the given equation.

$6 * 15 * 10 * 3 * 12$

(1) $+$ $+$ $=$ \times (2) $+$ $+$ $=$ $=$

(3) \times $+$ $+$ $=$ (4) $+$ $-$ $=$ $+$

Directions (36-37) : In each of the following questions, select the missing number from the given responses.

36. 10 85 8

7 54 7

8 ? 9

(1) 72 (2) 77

(3) 74 (4) 79

37. 12 13 16

3 5 6

8 8 ?

288 520 384

(1) 4

(3) 3

(2) 5

(4) 6

38. I went 15 m to the north, then I turned west and covered 10 m, then I turned south and covered 5 m and then turned east and covered 10 m. In which direction am I from the starting point ?

(1) East

(2) West

(3) North

(4) South

39. A person moves 400 metres to East. He turns to his left and moves 400 metres. Then again he turns to his left and walks 400 metres. Finally he turns to his right and moves 100 metres. Now how far away in metres, he is from the starting point ?

(1) 1300 (2) 900

(3) 800 (4) 500

40. Two statements are given followed by two conclusions 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 are to decide which of the given conclusions, if any, follow from the given statements. Indicate your answer.

Statements : Every bottle with a red label contains fruit juice. Fruit juice is safe to drink.

Conclusions :

I. It is safe drink the contents of bottles with red label.

II. It is not safe to drink from bottles with green label.

(1) Only I follows

(2) Only II follows

(3) Neither I nor II follows

(4) Both I and II follow

41. Two statements are given followed by four conclusions I, II, III and IV. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You are to decide which of the given conclusions, if any, follow from the given statements. Indicate your answer.

Statements :

(A) All clerks are typists.

(B) Some typists are stenographers.

Conclusions :

I. Some stenographers are clerks.

II. No stenographer is a clerk.

III. All typists are clerks.

IV. All clerks are stenographers.

(1) All the conclusions follow

(2) None of conclusions follow

(3) Either I or II follows

(4) Only IV follows

42. A solid cube of 4 inches has been painted red, green and black on pair of opposite faces. It has been cut into one inch cubes. How many cubes have no face painted ?

(1) 0 (2) 4

(3) 8 (4) 16

43. Six friends A, B, C, D, E and F are sitting in a row facing East. C is between A and E. B is just to the right of E but left of D. F is not at the right end. Who is to the left of A ?

(1) E (2) C

(3) D (4) F

44. If KEDGY is coded as EKDYG then how will LIGHT be coded ?

(1) ILHTG (2) ILGHT

(3) ILGTH (4) THGIL

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

Question Figure



Answer Figures



(1)



(2)



(3)



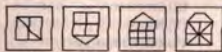
(4)

46. Select the answer figure in which the question figure is hidden/embedded.

Question Figure



Answer Figures



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

47. A piece of paper is 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



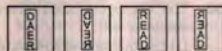
(1) (2) (3) (4)

48. Which of the answer figure is exactly the mirror image of the given figure, when the mirror is held on the line A B?

Question Figure

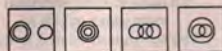


Answer Figures



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

49. Which one of the following diagrams best depicts the relationship among Days, Year and Months.



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

50. 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 3 and that of Matrix II are numbered from 4 to 7. A letter from these matrices can be represented

first by its row and next by its column, e.g. 'A' can be represented by 00, 33, 21, etc. and 'M' can be represented by 22, 30, 13, etc. Identify the set for the word MEAL.

MATRIX I

	0	1	2	3
0	A	M	T	I
1	T	I	A	M
2	I	A	M	T
3	M	T	I	A

MATRIX II

	4	5	6	7
4	E	B	L	U
5	L	U	E	B
6	U	E	B	L
7	B	L	U	E

- (1) 13, 44, 23, 46
 (2) 22, 64, 54, 65
 (3) 30, 56, 21, 67
 (4) 01, 65, 12, 31

GENERAL AWARENESS

51. Insider Trading is related to
 (1) Share market
 (2) Horse racing
 (3) Taxation
 (4) Market for public goods
52. At the Second Round Table Conference, the Indian National Congress was represented by
 (1) Jawaharlal Nehru
 (2) Mahatma Gandhi
 (3) Rajendra Prasad
 (4) Vallabhbhai Patel
53. Blue Revolution is related to
 (1) Fish production
 (2) Milk production
 (3) Oil production
 (4) Food production
54. Who said "The State exists for individuals individuals do not exist for the State"?
 (1) C.E.M Joad
 (2) Barker
 (3) Laski
 (4) Machiavelli

55. Which committee was constituted for reforms in Tax structure?

- (1) Narasimham Committee
 (2) Chelliah Committee
 (3) Gadgil Committee
 (4) Y.V. Reddy Committee
56. Interest groups are not formed on the basis of a common
 (1) caste (2) ideology
 (3) profession (4) region
57. Who was appointed to investigate into the assassination of Mrs. Indira Gandhi?
 (1) Justice Kania
 (2) Justice M.P. Thakkar
 (3) Justice Jain
 (4) Justice Venkataramaiah
58. Which dynasty patronised Jainism?
 (1) Gangas
 (2) Rashtrakutas
 (3) Kadambas
 (4) All of the above
59. Who among the following wrote his autobiography?
 (1) Humayun
 (2) Akbar
 (3) Babar
 (4) Aurangzeb
60. The drainage pattern in areas of river capture is
 (1) Annular
 (2) Rectangular
 (3) Barbed
 (4) Trellis
61. The beneficiaries of land grant in medieval South India were
 (1) Brahmins (2) Temples
 (3) Soldiers and officials
 (4) Brahmins and temples
62. Food gathering, hunting and fishing are occupations associated with
 (1) Aborigines of Australia
 (2) Semangs of Malaysia
 (3) Masai of E. Africa
 (4) Pygmies of Congo
63. One should not connect a number of electrical appliances to the same power socket because

- (1) this can damage the appliances due to overloading
 (2) this can damage the domestic wiring due to overloading
 (3) this can damage the electrical meter
 (4) the appliances will not get full voltage
- 64.** Oology involves study of eggs with special reference to
 (1) Insects
 (2) Birds
 (3) Reptiles
 (4) Toads
- 65.** Widal test is used for susceptibility of
 (1) Malaria
 (2) Cholera
 (3) Yellow fever
 (4) Typhoid
- 66.** Which ecosystem is most suitable for the production of tus-sar silworm ?
 (1) Agro ecosystem
 (2) Forestry ecosystem
 (3) Mulberry ecosystem
 (4) None of the above
- 67.** Valence electrons are
 (1) in the closest orbit to the nucleus
 (2) in the most distant orbit from the nucleus
 (3) in various orbits around the nucleus
 (4) not associated with a particular atom
- 68.** The key used to uniquely identify a record in database, is
 (1) Primary key
 (2) Secondary key
 (3) Foreign key
 (4) Key
- 69.** The most prosperous and lively State of India is
 (1) Haryana (2) Meghalaya
 (3) Goa (4) Sikkim
- 70.** Who is the Attorney General of India ?
 (1) Ashwani Kumar
 (2) Goolam E. Vahanvati
 (3) Shatrughan Singh
 (4) A.K Bhalla
- 71.** Find the **incorrect** match from the following :
 (1) Chipco Movement - Vijay Bahuguna
 (2) Anand Van - Baba Amte
 (3) Save Narmada Movement - Medha Patkar
 (4) Appiko Movement - P. Hegde
- 72.** The "National Heritage Animal" of India is
 (1) Elephant
 (2) Tiger
 (3) Lion
 (4) River Dolphin
- 73.** Which of the following languages got extinct from the Andaman and Nicobar Islands?
 (1) Jarawa
 (2) Orge
 (3) Khora
 (4) None of the above
- 74.** The Lhonak Glacier, a ticking bomb, is located in
 (1) Tibet
 (2) Sikkim
 (3) Nepal
 (4) Arunachal Pradesh
- 75.** The political party which leads the State of Uttar Pradesh Presently is
 (1) BJP
 (2) BSP
 (3) SP
 (4) Congress
- 76.** Nawab Straj-ud-Daula was associated with
 (1) Battle of Panipat
 (2) Battle of Plassey
 (3) Battle of Haldighati
 (4) Battle of kalinga
- 77.** GATT related to World trade is
 (1) Government Agreement on Trade and Tariff
 (2) General Agreement on Tariff and Trade
 (3) Genesis of Agricultural Trade and Tariff
 (4) General Agreement on Trade and Tourism
- 78.** Who among the following is **not** a cartoonist ?
- (1) Sudhir Dar
 (2) Laxman
 (3) Kutty
 (4) Ravi Shankar
- 79.** The "Earth Day" is celebrated on
 (1) 22nd April (2) 21st April
 (3) 14th April (4) 7th April
- 80.** A solid rock exposed to the action of the wind, rain and frost, and broken up into smaller particles gives rise to the formation of sand which contains mainly
 (1) Topaz
 (2) Tourmaline
 (3) Mica
 (4) Quartz
- 81.** "Traitor's Gate" is located in
 (1) Ahmedabad
 (2) Murshidabad
 (3) Allahabad
 (4) Hyderabad
- 82.** Which of the following Finance Ministers presented the Budget of 1991 ?
 (1) Yashwant Sinha
 (2) Pranab Mukherjee
 (3) P. Chidambaram
 (4) Manmohan Singh
- 83.** The "Watergate Scandal" is associated with
 (1) the bugging of the Water gate Apartments in the U.S.A. during President Nixon's tenure.
 (2) the pollution of river water in U.S.A.
 (3) nuclear contamination of river water in U.S.A.
 (4) corruption related to the construction of dams
- 84.** Hong Kong today, is part of
 (1) United Kingdom
 (2) China
 (3) Taiwan
 (4) Japan
- 85.** Indoor pollution as per TERI report, due to burning of solid fuels in India affects rural infants (under-five years) to the tune of
 (1) 5.15% (2) 10.25%
 (3) 20.05% (4) 27.5%

QUANTITATIVE APTITUDE

101.

$$\frac{[(1.331)^{-1} + (1.331)^{-2} + \dots + (1.331)^{-7}]^{2/3}}{[(1.331)^{-2} + (1.331)^{-3} + \dots + (1.331)^{-8}]}$$

= ?

(1) $(1.331)^{-2}$ (2) 1.331

(3) $(1.1)^{-2}$ (4) 1.21

102. What is the common factor of $((127)^{127} + (97)^{127})$ and $((127)^{97} + (97)^{97})$?

(1) 127 (2) 97

(3) 30 (4) 224

103. 105 goats, 140 oxen and 175 cows are to be brought across the river. There is only one boat and the boatman agrees on the condition that in each way he will carry cattle of same kind and maximum equal number of animals of each kind. What will be number of animals to be carried in each way?

(1) 42 (2) 28

(3) 35 (4) 15

104.
$$\frac{0.896 \times 0.753 + 0.896 \times 0.247}{0.8 \times 0.57 + 0.8 \times 0.943}$$

= ?

(1) 11.2 (2) 112

(3) 0.112 (4) 1.12

105. A fruit seller sells half of total apples and 1 apple to the first

buyer, $\frac{1}{3}$ rd of remaining apples and 1 apple to the second

buyer and $\frac{1}{5}$ th of the remaining

apples and 1 apple to the third buyer. After that he had 3 apples left. How many apples he had in the beginning?

(1) 15 (2) 18

(3) 20 (4) 25

106. Some birds and some branches are available. If one bird sits on each branch, one bird is left with no branch. If two birds sit on a branch one branch is left unattended. The

86. The "Kelkar Committee" was formed to recommend the guidelines related to

- (1) Direct and indirect taxes
- (2) Cross-border terrorism
- (3) Educational reforms
- (4) Financial reforms

87. Which city was the first city in India to get electricity ?

- (1) Mumbai
- (2) Delhi
- (3) Kolkata
- (4) Bengaluru

88. Which is the oldest and richest language of South India

- (1) Telugu
- (2) Sanskrit
- (3) Tamil
- (4) Kannada

89. The most important feature of monopolistic competition is

- (1) Absence of selling costs
- (2) Homogeneous product
- (3) Price discrimination
- (4) Product differentiation

90. 1942 Movement was called as

- (1) Civil Disobedience Movement
- (2) Khilafat Movement
- (3) Quit India Movement
- (4) Passive Resistance (Satyagraha Movement)

91. Whose theory has been called by Macpherson as 'development democracy'?

- (1) James Mill
- (2) John Stuart Mill
- (3) Bentham's democracy
- (4) Locke's democracy

92. "Each according to ability, each according to need" is the basic tenet of

- (1) Socialism
- (2) Communism
- (3) Totalitarianism
- (4) Anarchism

93. Muhammad Gawan built a famous Madrasa at

- (1) Bidar
- (2) Bijapur
- (3) Golconda
- (4) Ahmadnagar

94. The ideal conditions for the formation of dew are

- (1) clear sky, little or no wind, high relative humidity and cold long nights
- (2) cloudy sky, little wind, low humidity and warm short nights
- (3) clear sky, violently blowing wind, low humidity and cold long nights
- (4) cloudy sky, no wind, high relative humidity and cold short nights

95. According to Bal Gangadhar Tilak, the Aryans originated from

- (1) Kashmir
- (2) Central Asia
- (3) Arctic region
- (4) Tibet

96. The term "Orogeny" refers to

- (1) Volcanic activity
- (2) Formation of oceans
- (3) Mountain-building
- (4) Igneous intrusions

97. Which of the following is the best nuclear fuel for the nuclear reactor ?

- (1) Uranium - 236
- (2) Thorium - 236
- (3) Plutonium - 239
- (4) Neptunium - 239

98. Which one of the oceanic currents is related to the "El Nino effect"?

- (1) Humboldt current
- (2) Gulf Stream current
- (3) Peru current
- (4) Canary current

99. Which one parasite does not have a digestive system ?

- (1) Liver fluke
- (2) Tapeworm
- (3) Roundworm
- (4) Guinea worm

100. A photoelectric cell transforms light energy into

- (1) electric energy
- (2) heat energy
- (3) magnetic energy
- (4) chemical energy

number of birds and branches respectively is

- (1) 5 birds, 4 branches
(2) 3 birds, 2 branches
(3) 4 birds, 3 branches
(4) 6 birds, 4 branches

107. $\frac{1}{(\sqrt{9}-\sqrt{8})} - \frac{1}{(\sqrt{8}-\sqrt{7})} + \frac{1}{(\sqrt{7}-\sqrt{6})}$

$- \frac{1}{(\sqrt{6}-\sqrt{5})} + \frac{1}{(\sqrt{5}-\sqrt{4})} = ?$

- (1) 0 (2) 1
(3) 5 (4) $\frac{1}{3}$

108. The captain of one day cricket team scored 30 runs more than the average runs of other 6 batsmen. If total runs scored by all the batsmen of the team be 310 runs, how many runs were scored by the captain ?

- (1) 60
(2) 70
(3) 50
(4) cannot be determined

109. Farah was married 8 years ago. Her present age is $1\frac{2}{7}$

times of her age at the time of marriage. Today her daughter's age is one-sixth of her present age. What was her daughter's age 3 years ago ?

- (1) 6 years (2) 7 years
(3) 3 years
(4) cannot be determined

110. The population of a district is 296000 in which there are 166000 males. 50 % of total population is educated. If 70% of total males are educated, the number of educated females is

- (1) 31800 (2) 32200
(3) 48000 (4) 66400

111. A shopkeeper wants to offer 5% commission on the marked price and earn 10% profit. If the cost price of the article be Rs. 95, what is its marked price ?

- (1) ₹ 100 (2) ₹ 110
(3) ₹ 120 (4) ₹ 130

112. The marked price of a pen ₹ 12. A discount of 15%. is allowed on it. After it a second discount is allowed and hence the cost of pen is ₹ 8.16. The rate of second discount is

- (1) 15% (2) 18%
(3) 20% (4) 25%

113. In two alloys the ratios of zinc and copper are respectively 2 : 1 and 4 : 1. In what ratio two alloys should be mixed so that the ratio of zinc and copper in new alloy becomes 3 : 1 ?

- (1) 3 : 5 (2) 5 : 7
(3) 7 : 5
(4) None of these

114. In a school, 10% of the number of boys is equal to $\frac{1}{4}$ of

that of girls and 10% of the number of girls is $\frac{1}{25}$ th of

that of boys. What is the ratio of the number of boys and girls?

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

115. 4 men and 6 women together can do a work in 8 days while 3 men and 7 women together can do the same work in 10 days. In how many days will 10 women do the same work ?

- (1) 35 days (2) 40 days
(3) 45 days (4) 50 days

116. A pipe can fill a tank in 15 minutes, while a second pipe can fill it in 10 minutes. A third pipe can empty a full tank in 5 minutes. In the beginning first two pipes are opened for 4 minutes. Then the third pipe is also opened. After what time of opening the third pipe will the tank be emptied ?

- (1) 35 minutes
(2) 15 minutes
(3) 20 minutes
(4) cannot be emptied

117. Running at $\frac{2}{3}$ of its usual

speed a train reaches its destination 3 hours late. What time will it take to reach the destination at its usual speed?

- (1) 6 hours (2) 8 hours
(3) 10 hours (4) 12 hours

118. Two goods trains each of 500 metre length are running on parallel tracks in opposite directions at 45 kmph and 30 kmph respectively. In what time will the slower train cross the driver of the faster train ?

- (1) 12 seconds
(2) 24 seconds
(3) 48 seconds
(4) 60 seconds

119. The difference between the compound interest and the simple interest on a certain sum at the rate of 10% per annum for 3 years is Rs. 620. What is the principal ?

- (1) ₹ 40000 (2) ₹ 12000
(3) ₹ 10000 (4) ₹ 20000

120. If the height of a right circular cylinder be increased by 15% and radius of its base be decreased by 10%, what percentage change will be in its curved surface area ?

- (1) 3.5% decrease
(2) 3.5% increase
(3) 5% increase
(4) 5% decrease

121. A book-seller sells a book at a gain of 6%. If he had bought it at 4% less price and sold it for ₹ 23 more, he would have got 20% profit. Find the cost price of the book.

- (1) ₹ 250 (2) ₹ 225
(3) ₹ 260 (4) ₹ 235

122. Prabha started a business with an investment ₹ 32000. After 5 months Amit joined her with ₹ 22000. At the end of year, they had a profit of ₹ 16409. What is the share of prabha in the total profit ?

- (1) ₹ 5284 (2) ₹ 11712
(3) ₹ 10182 (4) ₹ 4697

123. A wheel makes 1900 revolutions in covering 88 km. What is the radius of the wheel?
 (1) 3.2 metre (2) 3.5 metre
 (3) 4 metre (4) 4.5 metre

124. If the weight of 1 cubic centimetre raw iron is 21 gm, what will be the weight of the pipe made of iron whose length is 1 metre, internal diameter 3 cm and thickness is 1 cm?
 (1) 18.6 kg (2) 21 kg
 (3) 24.2 kg (4) 26.4 kg

125. A wall clock was made correct at 8 am on a certain day. This clock runs 10 minutes fast in 24 hours. Next day when the clock shows 1 pm., what will be its correct time?
 (1) 12 : 48 pm (2) 11 : 48 am
 (3) 12 : 58 pm (4) 11 : 58 pm

126. The base of a right solid prism is a triangle whose sides are 6, 8 and 10 cm. The height of the prism is 10 cm. The total surface area of the prism is
 (1) 284 sq.cm (2) 288 sq.cm
 (3) 384 sq.cm (4) 240 sq.cm

127. If $\frac{x}{x^2 - 3x + 1} = \frac{1}{4}$, then

$$x^3 + \frac{1}{x^3} = ?$$

- (1) 322 (2) 321
 (3) 327 (4) 222
128. If $ax + by = 4$, $bx - ay = 5$ and $x^2 + y^2 = 5$ then $a^2 + b^2 = ?$
 (1) 8 (2) 8.1
 (3) 8.2 (4) 7.2

129. If $x^4 + \frac{1}{x^4} = 223$, then

$$x^2 + \frac{1}{x^2} = ?$$

- (1) 15 (2) 13
 (3) 225 (4) 17

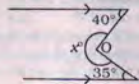
130. $\frac{2(a-b)^2}{(b-c)(c-a)} + \frac{2(b-c)^2}{(a-b)(c-a)} +$

$$\frac{2(a-c)^2}{(a-b)(b-c)} = ?$$

- (1) 5 (2) 3
 (3) 6 (4) 8

131. In a triangle ABC, the bisectors of $\angle B$ and $\angle C$ intersect each other at a point O. If $\angle BAC = 50^\circ$, then $\angle BOC = ?$
 (1) 115° (2) 65°
 (3) 105° (4) 90°

132. In the following figure, $AB \parallel CD$. Find the value of x .



- (1) 185° (2) 285°
 (3) 175° (4) 275°

133. ABC is a triangle in which $AB = AC$. BA is produced to D such that $AB = AD$. $\angle BCD$ is equal to

- (1) 60° (2) 80°
 (3) 90° (4) 45°

134. If the bisector of vertical angle of a triangle bisects the base, the triangle is

- (1) Equilateral (2) Isosceles
 (3) Right angled
 (4) Scalene

135. Points D, E and F are the mid points of the sides BC, CA and AB respectively. The area of the parallelogram BDEF is equal to

- (1) $\frac{1}{2} \Delta ABC$ (2) $\frac{1}{3} \Delta ABC$
 (3) $\frac{1}{2} \Delta DEF$ (4) ΔDEF

136. ABCD is a quadrilateral such that $\angle D = 90^\circ$. A circle C (O, r) touches the sides AB, BC, CD and DA at P, Q, R and S respectively. If $BC = 38$ cm, $CD = 25$ cm, and $BP = 27$ cm, find r.

- (1) 12 cm (2) 10 cm
 (3) 15 cm (4) 14 cm

137. If $\Delta ABC \sim \Delta DEF$ such that area of ΔABC is 9 cm^2 and the area of ΔDEF is 16 cm^2 and $BC = 2.1$ cm, find the length of EF.

- (1) 2 cm (2) 2.06 cm
 (3) 2.8 cm (4) 3.8 cm

138. If the sum of two angles of a triangle be 105° , the radian measure of third angle will be

- (1) $\frac{\pi}{3}$ (2) $\frac{\pi}{4}$
 (3) $\frac{2\pi}{3}$ (4) $\frac{5\pi}{12}$

139. If $\cot \theta = \frac{12}{7}$, find the value of

$$\frac{(2 + 2 \sin \theta)(1 - \sin \theta)}{(1 + \cos \theta)(2 - 2 \cos \theta)} - 1$$
 is

- (1) $\frac{95}{49}$ (2) $\frac{49}{95}$
 (3) $\frac{5}{7}$ (4) $\frac{7}{5}$

140. $(\sin \theta + \operatorname{cosec} \theta)^2 + 3 + (\cos \theta + \sec \theta)^2 = ?$

- (1) $7 + \tan^2 \theta + \cot^2 \theta$
 (2) $10 + \tan^2 \theta + \cot^2 \theta$
 (3) $15 + \tan^2 \theta + \cot^2 \theta$
 (4) None of these

141. $\frac{\cos^2 20^\circ + \cos^2 70^\circ}{\sec^2 50^\circ - \cot^2 40^\circ} + 4 \operatorname{cosec}^2 58^\circ - 4 \cot 58^\circ \tan 32^\circ = ?$

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

142. The angle of elevation of the top Q of a vertical tower PQ from a point X on the ground is 60° . At a point Y vertically above X the angle of elevation is 45° . Find the height of tower.

- (1) 54.64 metre
 (2) 96.64 metre
 (3) 64.54 metre
 (4) 94.64 metre

143. If $A + B = 90^\circ$, then

$$\frac{\tan A \tan B + \tan A \cot B}{\sin A \sec B}$$

$$= \frac{\sin^2 B}{\cos^2 A} = ?$$

- (1) $\cot^2 A$ (2) $\cot^2 B$
 (3) $-\tan^2 A$ (4) $-\cot^2 A$

144. For what value of k will the equation $x + 2y + 7 = 0$, $2x + ky + 14 = 0$ represent coincident lines ?

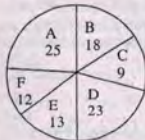
- (1) $k = 2$ (2) $k = 3$
 (3) $k = 4$ (4) $k = -4$

145. Where do the lines represented by $2x - y - 4 = 0$ and $x + y + 1 = 0$ meet the y -axis.

- (1) (0, -1) and (0, -4)
 (2) (-4, 0) and (1, 0)
 (3) (0, -2) and (0, -3)
 (4) (4, 0) and (-1, 0)

Directions (146-150) : The

Pie chart given here represents the domestic expenditure of a family in per cent. Study the chart and answer the following questions if the total monthly income of the family is Rs. 33,650.



- A : Expenditure on food
 B : Expenditure on house-
 rent
 C : Expenditure on entertain-
 ment
 D : Expenditure on education
 and maintenance of chil-
 dren
 E : Medical and miscella-
 neous expenditure
 F : Deductions towards provi-
 dent fund

146. The measure of the central angle of the sector representing expenditure on education and maintenance of children is
 (1) 45° (2) 60°
 (3) 80° (4) 90°

147. The house rent per month is :
 (1) Rs. 6000 (2) Rs. 6152
 (3) Rs. 6057 (4) Rs. 6048

148. The annual savings in the form of provident fund would be

- (1) Rs. 48,456
 (2) Rs. 48,540
 (3) Rs. 44,856
 (4) Rs. 45,480

149. After provident fund deductions and payment of house rent, the total monthly income of the family remains

- (1) Rs. 23,545
 (2) Rs. 24,435
 (3) Rs. 23,555
 (4) Rs. 25,355

150. The total amount per month, the family spends on food and entertainment combined together, is :

- (1) Rs. 11,432
 (2) Rs. 11,441
 (3) Rs. 12,315
 (4) Rs. 12,443

ENGLISH COMPREHENSION

Directions (151-155) : In the following questions, some parts of the sentences have errors and some are correct. Find out which part of a sentence has an error. The number of that part is the answer. If a sentence is free from error, your answer is (4) i.e. No error.

151. He who is assiduous (1)/ in his work, (2)/ is assure of win. (3)/ No error (4)
 152. Some of the books (1)/ prescribed for study this year (2)/ has been out of print. (3)/ No error (4)
 153. My brother and I (1)/ have been living here (2)/ since two years. (3)/ No error (4)
 154. I have kept (1)/ all my luggages (2)/ in the cloak room. (3)/ No error (4)
 155. Would you (1)/ got me (2)/ a little sugar ? (3)/ No error (4)

Directions (156-160) : In the following questions, 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 as your answer.

156. The quality of the construction work is _____.
 (1) abysmal

- (2) abyssal
 (3) abysmal
 (4) abyss

157. Today, the standard of education has ____ so much.

- (1) deteriorates
 (2) deteriorated
 (3) deteriorate
 (4) will deteriorate

158. Proper grammar, spelling and punctuation _____ essential.

- (1) is (2) was
 (3) much (4) are

159. Let us not go on foot _____ it is already late.

- (1) so (2) for
 (3) until (4) when

160. I have been waiting for you _____ nine o'clock.

- (1) on (2) at
 (3) till (4) since

Directions (161-165) : In the following questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.

161. Infallible
 (1) Unerring
 (2) incessant
 (3) Undeniable
 (4) Inexpressible
162. Historic
 (1) Historical
 (2) Theatrical
 (3) Hierarchical
 (4) Antique
163. Implore
 (1) Request (2) Rebuke
 (3) Command (4) Advise
164. Mundane
 (1) Monotonous
 (2) Moral
 (3) Arcane
 (4) Worldly
165. Devious
 (1) Difficult
 (2) Short-cut
 (3) Straight
 (4) Complicated

Directions (166-170) : In the following questions, choose the word opposite in meaning to the given word.

166. Lavish

- (1) Parsimonious
 (2) Squander
 (3) Prolific
 (4) Unlimited

167. Demure

- (1) Arrogant (2) Deadly
 (3) Dastardly (4) Dogged

168. Indigenous

- (1) Fearful
 (2) Foreign
 (3) Adequate
 (4) Adjacent

169. Belligerent

- (1) Intelligent (2) Peaceable
 (3) Average (4) Faithful

170. Benediction

- (1) Donation
 (2) Appraisal
 (3) Curse
 (4) Imperfection

Directions (171-175) : In the following questions, four alternatives are given for the Idiom/Phrase printed in **bold** in the sentence. Choose the alternative which best expresses the meaning of the Idiom/Phrase as your answer.

171. To do yeoman's service

- (1) to render valuable service
 (2) to render value judgement
 (3) to render a great care
 (4) to render huge help

172. To cut a sorry figure

- (1) to cut into pieces
 (2) to be sorry to cut something
 (3) to get bad results
 (4) to create a bad impression

173. A man of straw

- (1) stupid person
 (2) correspondent
 (3) unimportant person
 (4) intelligent person

174. To beat about the bush

- (1) to beat a bush
 (2) to talk irrelevantly
 (3) to talk loudly
 (4) to talk madly

175. To fight shy

- (1) to arrange
 (2) to avoid
 (3) to be shy
 (4) to fight with someone

Directions (176-180) :

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

176. They had to face a lot of problems due to mismanagement on the behalf of the organisers.

- (1) They had to face a lot of problems due to mismanagement in the hand of the organisers.
 (2) They had to face a lot of problems due to mismanagement on the part of the organisers.
 (3) They had to face a lot of problems due to mismanagement under no control of the organisers.
 (4) No improvement

177. Wandering in the woods, the princess was abducted by a gang of robbers.

- (1) Wandering in the woods, a gang of robbers abducted the princess.
 (2) A gang of robbers wandering in the woods abducted the princess.
 (3) A gang of robbers abducted the princess who was wandering in the woods.
 (4) No improvement

178. Having betrayed by a friend, he went into depression.

- (1) Been betrayed
 (2) Being betrayed
 (3) Having be betrayed
 (4) No improvement

179. Money does not grow on bushes.

- (1) plants
 (2) shrubs
 (3) trees
 (4) No improvement

180. The three men kidnapped the girl, but released her after they received the ransom.

- (1) releases her
 (2) will release her

(3) release her**(4) No improvement**

Directions (181-185) : In each of the following questions, out of the four alternatives, choose the one which can be substituted for the given sentences.

181. Speech made to oneself when one is alone

- (1) Soliloquy (2) Oratory
 (3) Rhetoric (4) Stoicism

182. To give up the throne or other office of dignity

- (1) Abdicate (2) Dethrone
 (3) Denounce (4) Accelerate

183. Additional paragraph, especially at the end of a letter after the signature

- (1) Postscript (2) Topograph
 (3) Epilogue (4) Emblem

184. To give one's authority to another

- (1) Authorisation
 (2) Powerful
 (3) Attorney
 (4) Delegate

185. Notice of death, especially in a newspaper

- (1) Condolence
 (2) Obituary
 (3) Obesity
 (4) Funeral

Directions (186-190) : In the following questions, four words are given in each question, out of which only one word is correctly spelt. Find the correctly spelt word.

186. (1) vaccum (2) vacume (3) vacumme (4) vacuum**187. (1) pseudoname (2) psudonym (3) psudoname (4) pseudonym****188. (1) receptent (2) receppient (3) recipient (4) reciepiant****189. (1) labyrinth (2) lebyrinth (3) labirynt (4) laberynth****190. (1) symetry (2) simmetry (3) symmetry (4) symmetry**

Directions (191-200) : In the following questions, you have a passage with 10 questions. Read the passage carefully and choose the best answer to each question out of the four alternatives.

PASSAGE

Once upon a time, there was an ugly girl. She was short and dumpy, had one leg a bit shorter than the other, and her eyebrows met in the middle. The ugly girl gutted fish for a living, so her hands smelt funny and her dress was covered in scales. She had no mother or brother, no father, sister, or any friends. She lived in a ramshackle house on the outskirts of the village, and she never complained.

One by one, the village girls married the local lads, and up the path to the church they'd prance, smiling all the way. At the weddings, the ugly girl always stood at the back of the church, smelling slightly of brine. The village women gossiped about the ugly girl. They wondered what she did with the money she earned. The ugly girl never bought a new frock, never made repairs to the house, and never drank in the village tavern. Now, it so happened that outside the village, in a great damp swamp, lived an old basket-maker who was famed for the quality of his work. One day the old basket-maker heard a knock on his door. When he opened it, the ugly girl stood there. In her hand, she held six gold coins. 'I want you to make me a husband,' she said. 'Come back in a month,' he replied. Well, the old basket-maker was greatly moved that the ugly girl had entrusted him with such an important task. He resolved to make her the best husband he could. He made the wicker husband broad of shoulder and long of leg, and all the other things women like. He made him strong of arm and elegant of neck, and his brows were wide and well-spaced. His hair was a fine dark brown, his eyes a greenish hazel. When the day came, the ugly girl knocked on the basket-maker's door. 'He says today is too soon. He will be in the church tomorrow, at ten,' said the basket-maker. The ugly girl went away, and spent the day scraping scales from her dress.

Later that night, there was a knock on the door of the village tailor. When the tailor opened it, the

wicker husband stood outside. 'Lend me a suit,' he said. 'I am getting married in the morning, and I cannot go to church naked.' 'Aaaaaaargh!' yelled the tailor, and ran out the back door. The tailor's wife came out, wiping her hands. 'What's going on?' she said. 'Lend me a suit,' said the wicker husband. 'I am getting married tomorrow, and I cannot go to my wedding naked.' The tailor's wife gave him a suit, and slammed the door in his face. Next, there was a knock on the door of the village shoe-maker. When the shoe-maker opened it, the wicker husband stood there. 'Lend me some shoes,' he said. 'I am getting married in the morning, and I cannot go to church barefoot.' 'Aaaaaaargh!' yelled the shoe-maker, and he ran out the back door. The shoe-maker's wife came out, her hands trembling. 'What do you want?' she said. 'Lend me some shoes,' said the wicker husband. 'I am getting married in the morning, and I cannot go to my wedding barefoot.' The shoe-maker's wife gave him a pair of shoes, and slammed the door in his face. Next, the wicker husband went to the village inn. 'Give me a drink,' said the wicker husband. 'I am getting married tomorrow, and I wish to celebrate.' 'Aaaaaaargh!' yelled the inn-keeper and all his customers, and out they ran. The poor wicker husband went behind the bar, and poured himself a drink. When the ugly girl got to church in the morning, she was mighty pleased to find her husband so handsome, and so well turned-out.

191. The wicker husband was

- (1) fair and handsome
- (2) ugly
- (3) dark
- (4) miserly

192. Where did the girl find her husband?

- (1) In the church
- (2) In the village
- (3) By the river-side
- (4) In the town

193. The house of the girl was

- (1) well-built

- (2) properly maintained
- (3) badly built and maintained
- (4) nice and beautiful

194. The girl lived

- (1) with her mother
- (2) with her father
- (3) with her parents
- (4) alone

195. The girl was

- (1) quarrelsome
- (2) naughty
- (3) polite
- (4) tricky

196. The girl lived

- (1) outside of a town
- (2) outside of a village
- (3) in a slum
- (4) in a flat

197. The girl always remained

- (1) unkempt
- (2) neat and clean
- (3) properly dressed
- (4) elegant

198. Who made the husband for the girl?

- (1) The villagers
- (2) The carpenter
- (3) The priest of the Church
- (4) The basket-maker

199. For making the husband, the creator asked the girl to come back in a

- (1) day
- (2) week
- (3) year
- (4) month

200. The wicker husband got his suit by

- (1) borrowing
- (2) purchasing
- (3) gift
- (4) theft