

**GENERAL INTELLIGENCE**

1. In the following question, select the related word from the given alternatives.  
Sheep : Lamb :: Cow : ?  
(1) Kitten (2) Cub  
(3) Calf (4) Caterpillar
2. In the following question, select the related letters from the given alternatives.  
PRAG : QTDK :: STOP : ?  
(1) LMNP (2) BDFE  
(3) TVRT (4) QSTG
3. In the following question, select the related number from the given alternatives.  
562 : 30 :: 663 : ?  
(1) 44 (2) 49  
(3) 54 (4) 58
4. In the following question, select the odd word from the given alternatives.  
(1) Cricket (2) Carrom  
(3) Table Tennis (4) Chess
5. In the following question, select the odd letters from the given alternatives.  
(1) IMX (2) DHS  
(3) GWK (4) KOZ
6. In the following question, select the odd number pair from the given alternatives.  
(1) 122 – 1331 (2) 173 – 2197  
(3) 197 – 2744 (4) 290 – 4913
7. Arrange the given words in the sequence in which they occur in the dictionary.  
1. Xenons 2. Xylyls  
3. Xanthic 4. Xenians  
5. Xyst  
(1) 34125 (2) 34521  
(3) 43251 (4) 51342
8. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.  
LOQ, SVX, ZCE, ?  
(1) GIL (2) GLJ  
(3) GTL (4) JLG
9. In the following question, select the missing number from the given series.  
13, 27, 56, 115, ?  
(1) 224 (2) 231  
(3) 233 (4) 234
10. Sumitra remembers that her mother's birthday is after 13<sup>th</sup> February but before 16<sup>th</sup> February but her brother remembers that his mother's birthday is after 14<sup>th</sup> February but before 17<sup>th</sup> February. On which date Sumitra's mother's birthday will be celebrated ?  
(1) 13<sup>th</sup> February (2) 14<sup>th</sup> February  
(3) 15<sup>th</sup> February (4) 17<sup>th</sup> February
11. There are five energy drinks – Red, Moto, Energy, Lion and Bull containing different range of sugar content. Moto having sugar content more than all other drinks. Energy having the sugar content only more than the Lion. Bull is not having sugar content more than the Red. Which of the following drink having the second most sugar content ?  
(1) Bull (2) Energy  
(3) Red (4) Moto
12. In the following question, from the given alternative words, select the word which cannot be formed using the letters of the given word.  
CALCULATING  
(1) GAIN (2) TANING  
(3) TAIL (4) CULT
13. In a certain code language, "WILDHRON" is written as "1133" and "RAPTURE" is written as "1089". How is "PORTLOUIS" written in that code language ?  
(1) 1395 (2) 1485  
(3) 1584 (4) 1595

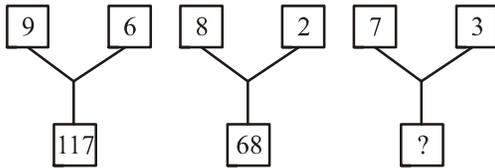
14. If "A" denotes "subtracted from", "B" denotes "added to", "C" denotes "divided by", "D" denotes "multiplied by", then which of the following statement is correct ?

- (1)  $3A\ 12B\ 16D\ 17C\ 1 = 163$
- (2)  $5C\ 7A\ 9D\ 8B\ 2 = 294$
- (3)  $13C\ 13A\ 13B\ 13D\ 13 = 157$
- (4)  $18C\ 16D\ 49A\ 27B\ 9 = 200$

15. If  $9 * 2 * 5 = 23$  and  $1 * 4 * 8 = 29$ , then

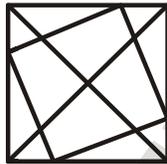
- (1) 9
- (2) 21
- (3) 31
- (4) 39

16. In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives.



- (1) 48
- (2) 52
- (3) 55
- (4) 58

17. How many triangles are there in the given figure ?



- (1) 20
- (2) 23
- (3) 24
- (4) 26

18. In the following question below are given some statements followed by some conclusions. Taking the given statements to be true even if they seem to be at variance from commonly known facts, read all the conclusions and then decide which of the given conclusion logically follows the given statements.

**Statements :**

- I. All LED are bulb.
- II. Some bulbs are not tube light.

**Conclusions :**

- I. Some tube lights are LED.
- II. All LED are tube lights.

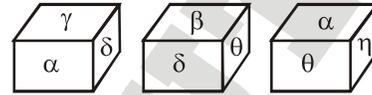
- (1) Only conclusion I follows.

(2) Only conclusion II follows.

(3) Neither conclusion (I) nor conclusion (II) follows.

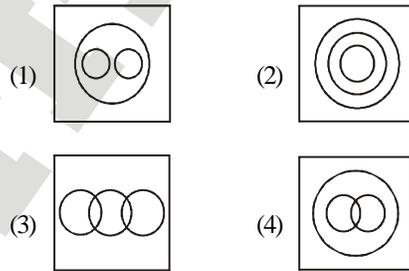
(4) Both conclusions follow.

19. Three positions of a cube are shown below. What will come opposite to face containing 'α'?



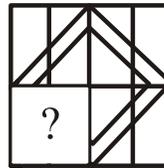
- (1) β
- (2) δ
- (3) η
- (4) θ

20. Identify the diagram that best represents the relationship among the given classes. Pet animals, Dog, Cat

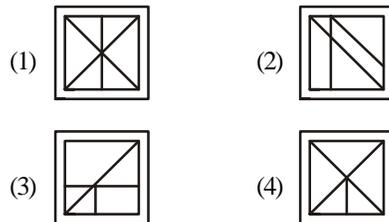


21. Which answer figure will complete pattern in the question figure ?

**Questions Figure :**

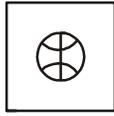


**Answer Figures :**

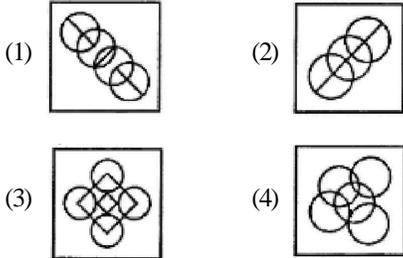


22. From the given answer figures, select the one in which the question figure is hidden/embedded.

**Questions Figure :**

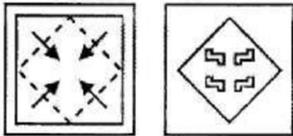


Answer Figures :

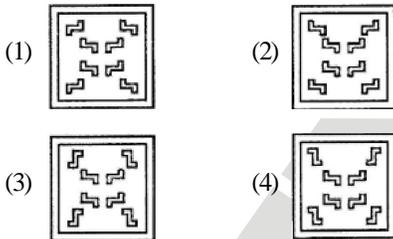


23. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened ?

Questions Figure :

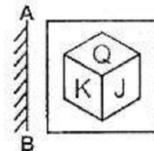


Answer Figures :

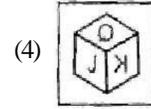
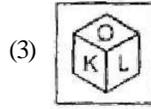


24. If a mirror is placed on the line AB, then which of the answer figure is the right image of the given figure ?

Questions Figure :



Answer Figures :



25. 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 shown in the given two matrices. 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, for example 'Z' can be represented by 87, 99 etc and 'T' can be represented by 69, 95 etc. Similarly, you have to identify the set for the word 'MAZE'.

Matrix-I

	0	1	2	3	4
0	M	O	G	A	C
1	A	C	M	O	G
2	O	G	A	C	M
3	C	M	O	G	A
4	G	A	C	M	O

Matrix-II

	5	6	7	8	9
5	J	Z	T	E	U
6	E	U	J	Z	T
7	Z	T	E	U	J
8	U	J	Z	T	E
9	T	E	U	J	Z

- (1) 00, 41, 99, 96      (2) 12, 04, 56, 58  
 (3) 24, 22, 88, 58      (4) 43, 10, 69, 77

### General Awareness

26. What does indifference curve represent ?  
 (1) Level of Income and Capital  
 (2) Satisfaction derived from two goods  
 (3) Income from two businesses  
 (4) Relationship between expenditure and savings

27.

28. India has taken the concept of 'Judicial Review' from which country's constitution ?  
 (1) United States (2) United Kingdom  
 (3) Canada (4) Ireland
29. How many time a person can be elected as the President of India ?  
 (1) One time (2) Two times  
 (3) Three times (4) No bar
30. Who shot dead John Saunders on 17<sup>th</sup> December 1927 ?  
 (1) Bhagat Singh  
 (2) Mangal Panday  
 (3) Sukhdev  
 (4) Bipin Chandra Pal Singh
31. Sardar Vallabhai Patel was the leader of \_\_\_\_\_.  
 (1) Bhoodan Movement  
 (2) Rowlatt Satyagraha  
 (3) Bardoli Satyagraha  
 (4) Swadesh Movement
32. Which type of forest majorly comprises of lichens and mosses ?  
 (1) Taiga forests  
 (2) Tundra forests  
 (3) Temperate mixed forests  
 (4) Tropical ever green forests
33. Which of the following has maximum diurnal temperature difference ?  
 (1) Desert (2) Mountains  
 (3) Plateau (4) Ocean
34. Night Blindness is caused by deficiency of which of the following vitamin ?  
 (1) Vitamin B (2) Vitamin C  
 (3) Vitamin K (4) Vitamin A
35. The right portion of human heart receives \_\_\_\_\_ blood.  
 (1) pure (2) impure  
 (3) mixed (4) None of these
36. Which of the following is the largest gland in human body ?  
 (1) Thyroid (2) Liver  
 (3) Kidney (4) Pancreas
37. On which principle does the hydraulic lift works?  
 (1) Newton's law (2) Pascal's law  
 (3) Archimedes's law (4) Joule's law
38. At what temperature (in degree Celsius), the numerical values on Celsius and Fahrenheit scales become equal ?  
 (1) 40 (2) 40  
 (3) 273 (4) 273
39. In MICR, what does 'I' stands for ?  
 (1) Interactive (2) Information  
 (3) Ink (4) Instruction
40. What is the process of conversion of solid state directly to gaseous state called ?  
 (1) Evaporation (2) Condensation  
 (3) Sublimation (4) Distillation
41. What are the main components of Bronze Alloy?  
 (1) Copper and Zinc  
 (2) Copper and Tin  
 (3) Zinc and Nickel  
 (4) Aluminum and Nickel
42. Which of the following causes fly ash ?  
 (1) Hydroelectric Power Station  
 (2) Coal Combustion Power Plant  
 (3) Nuclear Power Plant  
 (4) Tidal Power Plant
43. "Dulari Kanya", a scheme to bring down infant mortality in the state is launched by which Indian State ?  
 (1) Arunachal Pradesh  
 (2) Rajasthan  
 (3) Uttar Pradesh  
 (4) Madhya Pradesh
44. Who developed the theory of relativity ?  
 (1) Issac Newton (2) Charles Darwin  
 (3) Marie Curie (4) Albert Einstein
45. 'Queenbury rules' is code of rules that directly influences which of the following sport ?  
 (1) Tennis (2) Boxing  
 (3) Polo (4) Billiards
46. Who amidst the following is a distinguished painter ?

- (1) Uday Shankar  
 (2) Sonal Mansingh  
 (3) Amrita Shergill  
 (4) Yamini Kirshnamurthy
47. Who among the following was awarded with Padma Shri 2017 in the field of 'Sports – Hockey'?
- (1) Sardar Singh (2) P.R. Shreejesh  
 (3) Ramandeep Singh (4) Yuvraj Walmiki
48. "Hema Malini : Beyond the Dream Girl" is authored by which author?
- (1) Meena Iyer  
 (2) Hema Malini  
 (3) Ram Kamal Mukherjee  
 (4) Vijay Kumar
49. A 7500 mile direct rail link was launched on 10 April 2017 between China and \_\_\_\_\_.
- (1) Pakistan (2) Kazakhstan  
 (3) Great Britain (4) Franc
50. 19<sup>th</sup> SAARC summit was planned to be held in November 2016 but it got postponed. Which country was its host ?
- (1) Nepal (2) Bhutan  
 (3) India (4) Pakistan

## QUANTITATIVE APTITUDE

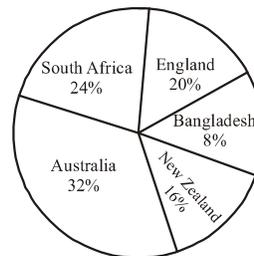
51. Product of three consecutive odd numbers is 1287. What is the largest of the three numbers?
- (1) 9 (2) 11  
 (3) 13 (4) 17
52. 45 men or 60 boys can do a piece of work in 20 days. How many days will 15 men and 20 boys take to complete the work ?
- (1) 23 (2) 45  
 (3) 30 (4) 25
53. How many spherical balls of radius 1 cm can be made by melting a hemisphere of radius 6 cm ?
- (1) 112 (2) 108  
 (3) 116 (4) 104
54. The marked price of a shirt is Rs. 1280. If the shirt is being sold for Rs. 900, then what is the discount percentage ?
- (1) 31.31 (2) 25.57  
 (3) 29.68 (4) 34.36
55. The ratio of number of cans of orange, pineapple and mixed fruit juice kept in a store is 8 : 9 : 15. If the store sells 25%, 33.33% and 20% of orange, pineapple and mixed fruit juices cans respectively, then what is the ratio of number of cans of these juices in the remaining stock ?
- (1) 1 : 1 : 2 (2) 6 : 6 : 13  
 (3) 12 : 15 : 19 (4) 4 : 9 : 13
56. The ratio of number of boys and girls in a class is 2 : 3. The average weight of boys and girls in the class is 18 kg and 21 kg respectively. What is the average weight (in kgs) of all the boys and girls together
- (1) 99/5 (2) 101/5  
 (3) 109/6 (4) 96/5
57. A milk merchant buys 50 litres of milk at the rate of Rs 40 per liter and mixes 5 litres of water in it. If he sells this mixture at the rate of Rs. 42 per litre, then what is the profit percentage for the dealer ?
- (1) 17.2 (2) 14.4  
 (3) 16.6 (4) 15.5
58. If A is 6 times more than B, then by what percentage is B is less than A ?
- (1) 64.82 (2) 83.33  
 (3) 28.56 (4) 85.71
59. A runner starts running from a point at 6 : 00 am with a speed of 8 km/hr. Another racer starts from the same point at 8 : 30 am in the same direction with a speed of 10 km/hr. At what time of the day (in p.m.) will the second racer will overtake the other runner ?
- (1) 8 : 00 (2) 4 : 00  
 (3) 6 : 30 (4) 5 : 30
60. A sum amounts to Rs. 7727.104 at the rate of 12% per annum compounded annually after three years. What is the value of principal (in Rs) ?
- (1) 5000 (2) 5200  
 (3) 5350 (4) 5500
61. When  $[x + (1/x)] = 5$ , then what is the value of  $[x - (1/x)]$  ?

- (1) 11 (2)  $\pm\sqrt{22}$   
 (3) 21 (4)  $\sqrt{2+}$
62. If  $x = (\sqrt{2}+1)/(\sqrt{2}-1)$ , then what is the value of  $(x^5 + x^4 + x^2 + x)/x^3$  ?  
 (1) 40 (2) 37.5  
 (3) 38 (4)  $20\sqrt{2}$
63. If  $x = 5 - 2\sqrt{6}$ , then what is the value of  $\sqrt{x} + (1/x)$  ?  
 (1) 5 (2) 2  
 (3)  $2\sqrt{3}$  (4)  $2\sqrt{2}$
64. If  $27x + 27[x - (1/3)] = 972$ , then what is the value of  $x$  ?  
 (1) 2 (2) 3  
 (3) 4 (4) 5
65. The inradius of an equilateral triangle is 10 cm. What is circum-radius (in cm) of the same triangle ?  
 (1) 5 (2)  $10\sqrt{3}$   
 (3) 20 (4)  $20\sqrt{3}$
66. The point of intersection of all the angle bisector of a triangle is \_\_\_\_\_ of the triangle.  
 (1) Incenter (2) Circumcenter  
 (3) Centroid (4) Orthocenter
67. ABC is an equilateral triangle and P is the orthocenter of the triangle, then what is the value (in degrees) of BPC ?  
 (1) 90 (2) 120  
 (3) 135 (4) 145
68. In a triangle ABC, AD is angle bisector of A and  $AB : AC = 3 : 4$ . If the area of triangle ABC is  $350 \text{ cm}^2$ , then what is the area (in  $\text{cm}^2$ ) of triangle ABD ?  
 (1) 150 (2) 200  
 (3) 210 (4) 240
69. A boat is sailing towards a lighthouse of height  $20\sqrt{3}$  m at a certain speed. The angle of

elevation of the top of the lighthouse changes from  $30^\circ$  to  $60^\circ$  in 10 seconds. What is the time taken (in seconds) by the boat to reach the lighthouse from its initial position ?

- (1) 10 (2) 15  
 (3) 20 (4) 60
70. What is the value of  $[\sec \theta / (\sec \theta - 1)] + [\sec \theta / (\sec \theta + 1)]$  ?  
 (1)  $2 \sin^2 \theta$  (2)  $2(1 + \tan^2 \theta)$   
 (3)  $2 \operatorname{cosec}^2 \theta$  (4)  $\sin^2 \theta$
71. If  $\operatorname{cosec} \theta = \frac{1}{4x} + x$ , then what is the value of  $\operatorname{cosec} \theta + \cot \theta$ .  
 (1)  $3x$  (2)  $x$   
 (3)  $4x$  (4)  $2x$  or  $1/(2x)$

**Directions 72 - 75 :** The pie chart given below shows the runs scored by Pujara against team of different countries.



- (1)  $3x$  (2)  $x$   
 (3)  $4x$  (4)  $2x$  or  $1/(2x)$
72. The runs scored by Pujara against South Africa is more than runs scored against Bangladesh by what percentage ?  
 (1) 100 (2) 150  
 (3) 200 (4) 250
73. If Pujara has scored 1875 runs in total, then what is the difference in runs scored by Pujara against South Africa and New Zealand ?  
 (1) 150 (2) 175  
 (3) 200 (4) 250
74. What is the sectorial angle (in degrees) made by the runs scored against Australia in the given pie chart ?

- (1) 106.8                      (2) 109.6  
 (3) 112.4                      (4) 115.2

75. What should be the least number of runs that Pujara must have scored in total (runs can only be integers)?

- (1) 25                              (2) 225  
 (3) 375                              (4) 625

## ENGLISH COMPREHENSION

76. In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.

I am vexed at him (1)/ for what all he has (2)/ done for him till date. (3)/ No error (4)

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

77. In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.

The Manager warned his team members (1)/ that if they persist in their (2)/ obstructionist attitude they would be punished. (3)/ No error (4)

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

78. In the following question, the sentence given with blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.

Both taciturn and \_\_\_\_\_, Daniel seldom spoke and never spent money.

- (1) wary                              (2) cheap  
 (3) discreet                              (4) miserly

79. In the following question, the sentence given with blank to be filled in with an appropriate word. Select the correct alternative out of the four indicate it by selecting the appropriate option.

He was too \_\_\_\_\_ to make a statement before the Boss.

- (1) shy                              (2) tired  
 (3) timid                              (4) coward

80. In the following question, out of the four alternatives, select the word similar in meaning to the word given.

**Reiterate**

- (1) Abuse                              (2) Pretend  
 (3) Detest                              (4) Repeat

81. In the following question, out of the four alternatives, select the word similar in meaning to the word given.

**Nincompoop**

- (1) Wise                              (2) Fool  
 (3) Lover                              (4) Companion

82. In the following question, out of the four alternatives, select the word opposite in meaning to the word given.

**Pellucid**

- (1) Torpid                              (2) Explicit  
 (3) Murky                              (4) Limpid

83. In the following question, out of the four alternatives, select the word opposite in meaning to the word given.

**Adamant**

- (1) Rigid                              (2) Flexible  
 (3) Fixed                              (4) Unshakable

84. In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.

To wrangle over an ass's shadow

- (1) To waste money over trifles  
 (2) To punish a person severely for his arrogance  
 (3) To quarrel over trifles  
 (4) To keep away from extreme poetry

85. In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.

(1) To confuse someone

(2) To flatter someone

(3) To abuse someone

(4) To frighten someone

86. Improve the bracketed part of the sentence.  
 Father (would have been appreciated) your

efforts if you had informed him.

- (1) would be appreciated
- (2) would have appreciated
- (3) should have been appreciated
- (4) No improvement

**87.** Improve the bracketed part of the sentence.  
Neha was (surprised by) her result.

- (1) surprised to
- (2) surprised form
- (3) surprised at
- (4) No improvement

**88.** In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.

Study of tumors

- (1) Oenology
- (2) Oncology
- (3) Phrenology
- (4) Upology

**89.** In the following question, out of the four alternatives, select the alternatives which is the best substitute of the phrase.

The highest point

- (1) Tempest
- (2) Outpost
- (3) Archive
- (4) Zenith

**90.** In the following question, four words are given out of which one word is incorrectly spelt. Find the incorrectly spelt word.

- (1) Literary
- (2) Leakage
- (3) Laudable
- (4) Loafer

**91.** In the following question, four words are given out of which one word is incorrectly spelt. Find the incorrectly spelt word.

- (1) Anasthetic
- (2) Obliterate
- (3) Concurrence
- (4) Blithesome

**92.** The question below consists of a set of labeled sentences. Out of the four options given, select the most logical order of the sentences to form a coherent paragraph.

P: Yet making loans to poor people is hardly a Poverty cure.

Q: Segmenting the industry, might be worth while if it allows more of the poor to get access to credit.

R: Multinational corporations could take the top microfinance institutions to the next level, and the remainder could take the responsibility of development groups and

regional banks.

S: Property rights and the role of law matter too.

- (1) PRQS
- (2) QRPS
- (3) SPQR
- (4) RSPQ

**93.** The question below consists of a set of labeled sentences. Out of the four options given, select the most logical order of the sentences to form a coherent paragraph.

P: But the scenario has quite changed now-a-days by allocating a special budget of funds for security.

Q: In the last ten years, budget towards the development of military forces is higher when compared to others.

R: India earlier days gave more importance to the development of industry and less importance to other departments.

S: This is because of the frightening increase in terrorism all around especially emerging after the 9/11 terror attack in U.S.

- (1) PRQS
- (2) SPQR
- (3) QSPR
- (4) RPSQ

**94.** In the following question, a sentence has been given in Active/Passive voice. Out of four alternatives suggested, select the one which best expresses the same sentence in Passive/Active voice.

One should keep one's word.

- (1) A word should be kept.
- (2) A word should be keeping.
- (3) One's word has to be kept.
- (4) One's word should be kept by us.

**95.** In the following question, a sentence has been given in Direct/Indirect speech. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct speech.

The old man said, "Thanks I shall never forget this kindness Ankit."

- (1) The old man applauded Ankit for his kindness and he shall never forget Ankit.
- (2) The old man thanked Ankit and assured him that he would never forget his kindness.

- (3) Ankit was being thanked by the old man for his kindness towards an old man.  
(4) The old man said thank you to Ankit for his kindness.

**96.** In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

National integration means \_\_\_\_ all the people of the nation into a single whole. It is a \_\_\_\_ that bends together all people in one \_\_\_\_ bond no matter what their religion, caste, language or history may be. It is a \_\_\_\_ cementing force whereby all kinds of people live \_\_\_\_ peacefully and can identify themselves as a part and parcel of a nation.

National integration means \_\_\_\_ all the people of the nation into a single whole.

- (1) segregating            (2) combining  
(3) residing                (4) complying

**97.** In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

National integration means \_\_\_\_ all the people of the nation into a single whole. It is a \_\_\_\_ that bends together all people in one \_\_\_\_ bond no matter what their religion, caste, language or history may be. It is a \_\_\_\_ cementing force whereby all kinds of people live \_\_\_\_ peacefully and can identify themselves as a part and parcel of a nation.

It is a \_\_\_\_ that binds together

- (1) sentiment            (2) resources  
(3) essentials            (4) finances

**98.** In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

National integration means \_\_\_\_ all the people of the nation into a single whole. It is a \_\_\_\_

that bends together all people in one \_\_\_\_ bond no matter what their religion, caste, language or history may be. It is a \_\_\_\_ cementing force whereby all kinds of people live \_\_\_\_ peacefully and can identify themselves as a part and parcel of a nation.

all people in one \_\_\_\_ bond no matter what their religion, caste, language or history

- (1) real                      (2) common  
(3) nominal                (4) similar

**99.** In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

National integration means \_\_\_\_ all the people of the nation into a single whole. It is a \_\_\_\_ that bends together all people in one \_\_\_\_ bond no matter what their religion, caste, language or history may be. It is a \_\_\_\_ cementing force whereby all kinds of people live \_\_\_\_ peacefully and can identify themselves as a part and parcel of a nation.

It is a \_\_\_\_ cementing force whereby all kinds of people

- (1) weakening            (2) natural  
(3) strong                 (4) settled

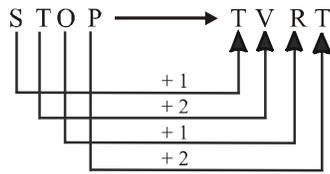
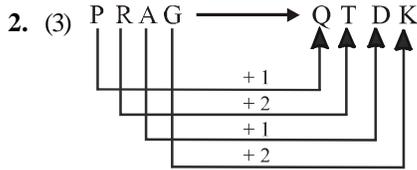
**100.** In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

National integration means \_\_\_\_ all the people of the nation into a single whole. It is a \_\_\_\_ that bends together all people in one \_\_\_\_ bond no matter what their religion, caste, language or history may be. It is a \_\_\_\_ cementing force whereby all kinds of people live \_\_\_\_ peacefully and can identify themselves as a part and parcel of a nation.

live \_\_\_\_ peacefully and can identify themselves as a part and parcel of a nation.

- (1) separately            (2) jointly  
(3) happily                (4) together

1. (3) As young one's of sheep is lamp, similarly, young one's of Cow is calf.



3. (3)  $562 : 30 :: 663 : 54$

$$\frac{5 \times 6 \times 2}{2} = 30, \quad \frac{6 \times 6 \times 3}{2} = 54$$

4. (1) The odd word from the given alternative is cricket because there are 11 players in cricket and in other alternatives two players.

5. (3) The odd letters from the given alternatives is GWK



6. (2) The odd number pair from the given alternatives is 173-2197.

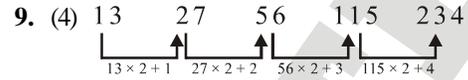
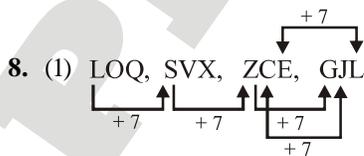
(1)  $11^2 + 1 \Rightarrow 122$      $11^3 \Rightarrow 1331$

(2)  $13^2 + 4 \Rightarrow 173$      $13^3 \Rightarrow 2197$

(3)  $14^2 + 1 = 197$      $14^3 = 2744$

(4)  $(17)^2 + 1 = 290$      $17^3 = 4913$

7. (1) (3) Xanthic  $\rightarrow$  (4) Xenians  $\rightarrow$  (1) Xenons  $\rightarrow$  Xylyls (2)  $\rightarrow$  (5) Xyst



10. (3) Only 15th February is the most suitable option according to Sumitra's and her brother's statements.

11. (3) M \_ \_ \_ \_  
E L  
 \_ R B \_ \_  
 complete order M R B E L

12. (2) TANING cannot be formed using the letters of the given word, CALCULATING as there is only 1 'N' in the keyword.

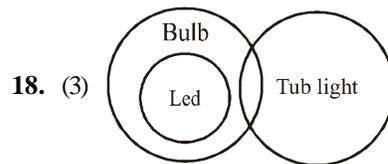
13. (4) 1595

14. (3) Equation (3) is correct.  
 $13C \ 13A \ 13B \ 13D \ 13 = 157$   
 (On using the meaning of alphabets)  
 $\Rightarrow 13 \div 13 - 13 + 13 \times 13 = 157$   
 $\Rightarrow 1 - 13 + 169 = 157$   
 $\Rightarrow 157 = 157$

15. (1)  $9 * 2 * 5 = 23$   
 $\Rightarrow 9 \times 2 + 5 = 23$   
 $1 * 4 * 8 = 12$   
 $\Rightarrow 1 \times 4 + 8 = 12$   
 and  $1 * 6 * 3 = ?$   
 $1 \times 6 + 3 = 9$

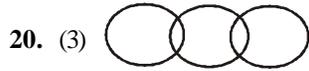
16. (4)  $(9)^2 + (6)^2 = 117$   
 $(8)^2 + (2)^2 = 68$   
 $(7)^2 + (3)^2 = 58$

17. (1) There are 20 triangles in the given figure.



Neither conclusion (i) nor conclusion (ii) follows.

19. (2)  $\beta$  is opposite to  $\eta$   
 $\alpha$  is opposite to  $\delta$   
 $\gamma$  is opposite to  $\theta$



21. (2)

22. (2)

23. (4)

24. (2)

25. (1)  $M \Rightarrow 00$

$A \Rightarrow 41$

$Z \Rightarrow 99$

$E \Rightarrow 96$

MAZE = 00, 41, 99, 96

51. (3)  $x, x + 2, x + 4$

$$x \cdot (x + 2) \cdot (x + 4) = 1287$$

$$x^3 + 6x^2 + 8x = 1287$$

$$x = 9$$

$$\text{Largest number} = x + 4 = 9 + 4 = 13$$

52. (3) 45 men = 60 boys

15 men = 20 boys

$$60 \times 20 = (20 + 20) D$$

$$D = \frac{60 \times 20}{40} = 30 \text{ days}$$

53. (2)  $\frac{\text{Volume of hemisphere}}{\text{Volume of Sphere}}$

$$\frac{\frac{2}{3} \pi r^3}{\frac{4}{3} \pi R^3} = \frac{\frac{2}{3} \times 216}{\frac{4}{3} \times 1} = 108$$

$$r = 6, R = 1$$

54. (3) M.P = 1280

S.P = 900

$$\text{Discount} = 1280 - 900 = 380$$

$$D\% = \frac{380}{1280} \times 100 = 29.68\%$$

55. () Orange : Pineapple : Mixed Fruit Juice

Initial value	8	9	15
	$\downarrow -25\%$	$\downarrow -33.33\%$	$\downarrow -20\%$
	6	6	12
Final value	1	1	2

56. (1) Let the common in the ratio be  $x$   
 Required average weight

$$= \frac{(2x \times 18) + (3x \times 21)}{2x + 3x}$$

$$= \frac{99x}{5x} = \frac{99}{5}$$

57. (4) Cost price of milk =  $50 \times 40 = 2000$

Selling Price of milk =  $55 \times 42 = 2310$

$$\text{Profit} = 2310 - 2000 = 310$$

$$\text{Profit \%} = \frac{310}{2000} \times 100 = 15.5\%$$

58. (2) A : B

$$\frac{6 : 1}{-5}$$

$$\frac{5}{6} \times 100 = 83.33\%$$

59. (3) 1st runner start running at 6 : 00 am

Distance in 2.5 hour = 20 km

2nd runner start running at 8 : 30 am

$$\text{time of over-taking} = \frac{20}{2} = 10 \text{ hour}$$

2nd runner overtake 1st runner at

$\Rightarrow 6 : 30 \text{ pm}$

60. (4)  $A = P \left( 1 + \frac{r}{100} \right)^n$

$$\Rightarrow 7727.104 = P \left( 1 + \frac{12}{100} \right)^3$$

$$\Rightarrow \frac{7727.104}{P} = (1.12)^3$$

$$\Rightarrow \frac{7727.104}{1.404928} = P$$

$$\Rightarrow P = ₹ 5500$$

61. (4)  $x + \frac{1}{x} = 5$

$$x - \frac{1}{x} = \pm \sqrt{(5)^2 - 4}$$

$$= \pm \sqrt{21}$$

$$\therefore x + \frac{1}{x} = a$$

$$x - \frac{1}{x} = \pm \sqrt{a^2 - 1}$$

62. (1)  $x = \frac{\sqrt{2}+1}{\sqrt{2}-1}$

$$x + \frac{1}{x} = \frac{\sqrt{2}+1}{\sqrt{2}-1} + \frac{\sqrt{2}-1}{\sqrt{2}+1}$$

$$= \frac{(\sqrt{2}+1)^2 + (\sqrt{2}-1)^2}{(\sqrt{2}-1)(\sqrt{2}-1)}$$

$$x + \frac{1}{x} = \frac{\sqrt{2}+1}{\sqrt{2}-1}$$

$$\Rightarrow x + \frac{1}{x} = 6$$

$$= 36 - 2 = 34$$

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

$$\frac{x^5 + x^4 + x^2 + x}{x^3}$$

$$\Rightarrow x^2 + x + \frac{1}{x} + \frac{1}{x^2}$$

$$\Rightarrow x^2 + \frac{1}{x^2} + x + \frac{1}{x}$$

$$\Rightarrow 34 + 6 = 40$$

63. (3)  $x = 5 - 2\sqrt{6}$

$$x = (\sqrt{3} - \sqrt{2})^2$$

$$\sqrt{x} = \sqrt{(\sqrt{3} - \sqrt{2})^2}$$

$$\sqrt{x} = \sqrt{3} - \sqrt{2}$$

$$\frac{1}{\sqrt{x}} = \sqrt{3} + \sqrt{2}$$

$$\Rightarrow \sqrt{x} + \frac{1}{\sqrt{x}}$$

$$= \sqrt{3} - \sqrt{2} + \sqrt{3} + \sqrt{2} = 2\sqrt{3}$$

64. (1) On putting  $x = 2$

$$27^2 + 27^{(2-(1/3))} = 972$$

$$\Rightarrow (27)^2 + 27^{5/3} = 972$$

$$\Rightarrow 729 + 3^{3 \times \frac{5}{3}} = 972$$

$$\Rightarrow 729 + 243 = 972$$

$$\Rightarrow 972 = 972$$

65. (3) Inradius =  $\frac{a}{2\sqrt{3}}$

$$\Rightarrow \frac{a}{2\sqrt{3}} = 10$$

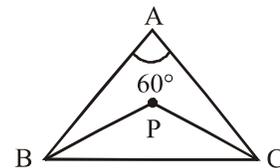
$$a = 20\sqrt{3}$$

$$\text{Circum-radius} = \frac{a}{\sqrt{3}}$$

$$= \frac{20\sqrt{3}}{\sqrt{3}} = 20$$

66. (1) The point of intersection of all the angle bisector of a triangle is incenter of the triangle.

67. (2)

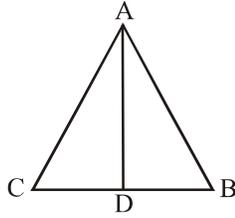


$$\therefore \angle BAC = 60^\circ$$

$$\therefore \angle BPC = 20 + \frac{60}{2}$$

$$= 90 + 30^\circ = 120^\circ$$

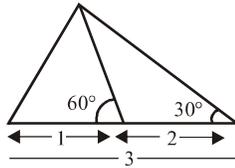
68. (1)



$$\frac{AB}{AC} = \frac{3}{4}$$

$$\text{area of } \triangle ABD = \frac{3}{7} \times 350 = 150 \text{ cm}^2$$

69. (2)



$$30^\circ = \frac{\sqrt{3}}{\sqrt{3}} \times \frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3} \begin{matrix} \nearrow P \\ \searrow B \end{matrix}$$

$$60^\circ = \frac{\sqrt{3}}{1} \begin{matrix} \nearrow P \\ \searrow B \end{matrix}$$

$$2 \text{ इकाई} \rightarrow 10 \text{ sec}$$

$$1 \text{ इकाई} \rightarrow 5 \text{ sec}$$

$$3 \text{ इकाई} \rightarrow 15 \text{ sec}$$

70. (3)  $\frac{\sec \theta}{(\sec \theta - 1)} + \frac{\sec \theta}{(\sec \theta + 1)}$

$$\Rightarrow \frac{\sec \theta (\sec \theta + 1) + \sec \theta (\sec \theta - 1)}{(\sec \theta - 1)(\sec \theta + 1)}$$

$$\Rightarrow \frac{\sec^2 \theta + \sec \theta + \sec^2 \theta - \sec \theta}{\sec^2 \theta - 1}$$

$$\Rightarrow \frac{2 \sec^2 \theta}{\tan^2 \theta} = \frac{\frac{2}{\cos^2 \theta}}{\frac{\sin^2 \theta}{\cos^2 \theta}}$$

$$\Rightarrow \frac{2}{\sin^2 \theta} = 2 \operatorname{cosec}^2 \theta$$

72. (3) The runs scored by Pujara against south Africa = 24  
Against Bangladesh = 8

$$\text{Percentage} = \frac{16}{8} \times 100 = 200\%$$

73. (1) 100% = 1875

$$1\% = \frac{1875}{100}$$

Difference in runs south Africa and New Zealand = 24 - 16 = 8%

$$8\% = \frac{1875}{100} \times 8 = 150$$

74. (4) 100% = 360°

$$32\% = \frac{360}{100} \times 32 = 115.2$$

75. (1)

76. (2) for - ×  
by - √

77. (2) persist - ×  
Persisted - √

78. (4) कंजूस

79. (3) timid : आत्मविश्वास की कमी

80. (4) दूबारा कहना या करना

81. (2) मूर्ख

82. (3) Pellucid : बिल्कुल साफ, (पूरे प्रकाश को आने दे)  
Murky : साफ नहीं, (अंधेरा)

83. (2) Adament : जिद्दी

84. (3) बेकार की बातों के लिए बहस/लड़ाई करना।

85. (4) डर की कपकपी करना।

86. (2) If + sub + had + v<sub>3</sub>, sub + would have + v<sub>3</sub>  
+ O

87. (3) surprise के बाद 'at' use होता है (यह passive voice)

88. (2)
89. (4)
90. (2) leakage – ×  
leakage – √
91. (1) Anesthetic – √  
Anasthetic – ×
92. (2)
93. (4)
94. (1) Modal का passive voice जिसमे subject का महत्व नहीं होता।
95. (2) Affirmative वाक्य की Indirect speech
96. (2) combining : मिलाना/जोड़ना
97. (1) भावना या अहसास
98. (2) सबके लिए समान (बराबर)
99. (3)
100. (4) एक साथ