SSC HIGHER SECONDARY LEVEL EXAM
MODEL PAPER

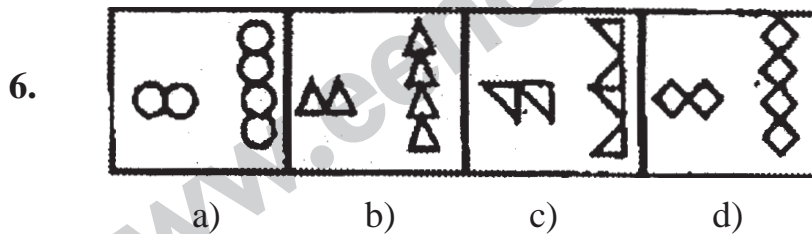**No.of Questions: 200**   **Total Marks: 200**   **Time:120 Minutes**

GENERAL INTELLIGENCE

Directions (1 - 6): Select the one which is different from the other three responses.

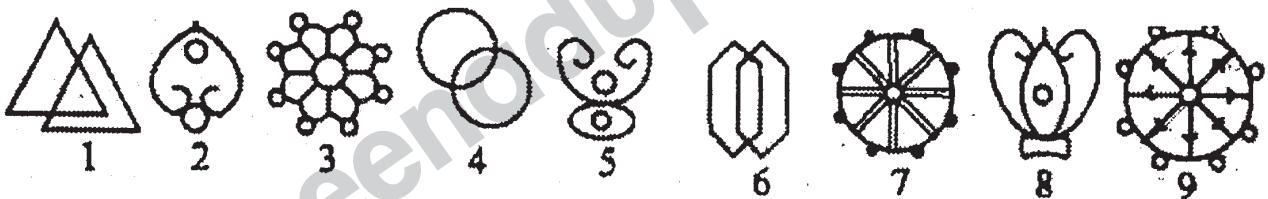1.   a) Sweet   b) Bitter   c) Salty   d) Insipid

2.   a) Lion   b) Goat   c) Tortoise   d) Centaur

3.   a) Square   b) Circle   c) Rectangle   d) Triangle

4.   a) AJKL   b) IBCD   c) ORQP   d) UFGH

5.   a) DEB   b) RTP   c) HIF   d) NOL

6.

         a)   b)   c)   d)

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

Given set (3, 18, 36)

a) (2, 10, 16)   b) (12, 72, 96)   c) (4, 24, 48)   d) (6, 42, 48)

8.   Directions: A series of figures are given which can be grouped into classes. Select the group into-which the figures can be classified from the given responses.

a) 1, 4, 8;   2, 5, 7;   3, 9, 6   b) 1, 4, 6;   2, 5, 8;   3, 7, 9

c) 1, 4, 6;   2, 5, 7;   3, 8, 9   d) 1, 2, 3;   4, 5, 6;   7, 8, 9

9.   Arrange the following words according to the Dictionary:

1. Sound   2. Socks   3. Shock

4. Sharp   5. Snooker

a) 5, 4, 3, 1, 2   b) 4, 3, 5, 2, 1

c) 3, 4, 5, 1, 2   d) 4, 3, 2, 5, 1

Directions (10 - 11): Given below are letters A to Z. Under each capital letter a small letter is written which is to be used as code for the capital letters.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
j	r	g	m	t	w	n	b	v	z	y	d	q	s	f	u	i	a	o	h	k	c	x	l	e	p

In each of the following questions a group of six capital letters is given and columns (a), (b), (c) or (d). Study the group of letters given in each question and with the help of code given above choose the code equivalent from amongst (a), (b), (c) or (d) as your answer.

a)	b)	c)	d)
uhvrki	bafynx	akilmj	obejxz
cniljq	qukdts	rbvsed	gafzxy
obelkz	ocdjxz	whvrku	bmllkq
gafymt	bnklmq	gabzmir	mpqtva

10. MPULEN

11. SHYAWJ

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

H - JH - IJHHI - HH - JH

a) IHJI   b) HIHI   c) IHIJ   d) HJHJ

Directions (13 - 15): Find the missing number/ letters in the series.

13. DHL, PTX, BFJ, ?

a) NRV   b) RVZ   c) CGK   d) KOS

14. 22, 24, 28, ?, 52, 84

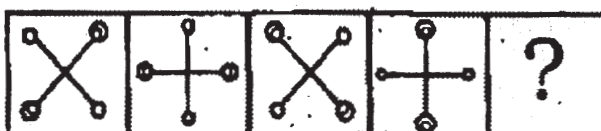a) 46   b) 36   c) 38   d) 42
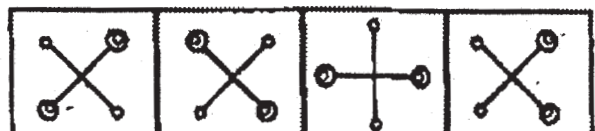
15. 3, 7, 23, 95, ?

a) 575   b) 479   c) 128   d) 62

Directions (16-17): Find the missing figure in the series from the given answer figures.

16.   **Question Figures**   **Answer Figures**

a)   b)   c)   d)

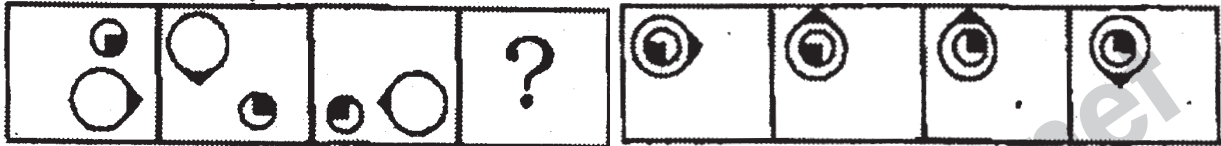**17.** **Question Figures**   **Answer Figures**

a)   b)   c)   d)

Directions (18 - 19): Below are given roll numbers of some candidates registered at different centres for an examination. The first two digits from left stand for the centre code and the next four for the serial number of the candidates registered at the centre.

153765	475641	473417	354231
345487	342172	243212	662387
472364	152346	349895	212223
346704	214687	662479	473765
660124	665214	476789	154318
215132	471369	342567	476218

Now answer the following questions based on the sample of roll numbers.

18. Which of the following centres had the highest serial numbers?

a) 47   b) 34   c) 58   d) 21

19. Which of the following centre-pairs had the some common serial numbers?

a) 15 and 34   b) 34 and 66   c) 15 and 47   d) 21 and 24

20. Select the related figure from the answer figures.

Problem Figures   **Answer Figures**

a)   b)   c)   d)

Direction (21 - 22): In these questions the name of a town and a date is given followed by four alternatives (1, 2, 3 and 4). Of these alternatives only one matches the town and the date given below while others have some mistakes or the other. You are to choose the alternative as your answer which is exactly the same as the given one.
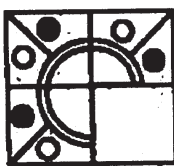
21. Kootch Bihar 18, February, 1969

a) Kootch Bihar 18, February, 1996   b) Kootch Bihar 18, February, 1969

c) Koatch Bihar 18, February, 1969   d) Kootch Bihar 13, February, 1969

22. Muzaffarpur 27 August, 1802

  a) Muzaffarpur 27 August, 1820   b) Muzaffarpur 17 August, 1802

  c) Muzaffarpor 27 August, 1802   d) Muzaffarpur 27 August, 1802

23. A is the sister of B. B is the brother of C, C is the son of D. How is D related to A?

  a) Mother   b) Daughter   c) Son   d) Uncle

24. Heavier coins are costlier. Ram's coin is heavier than Mohan's and costlier than Ramesh's. Naresh's coin is costlier than Ram's but lighter than Yogesh's. Ramesh's coin is costlier than Mohan's. So who is the owner of the costliest coin?

  a) Ram   b) Ramesh   c) Yogesh   d) Naresh

25. A word given in Capital Letters is followed by four answer words. Out of these only one cannot be formed using the letters of the given word. Find out that word.
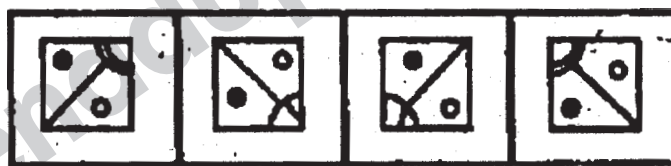
  ADMINISTRATION

  a) MIND   b) RATION   c) MINISTER   d) STATION

26. If A = 2, M = 26 and Z = 52, then BET = ?

  a) 44   b) 54   c) 64   d) 72

27. Mohan started from point X and travelled forward 8 km up to point Y, then turned towards right and travelled 5 km up to point Z then turned right and travelled 7 km up to point A and then turned towards right and travelled 5 km up to B. What is the distance between point B and X?

  a) 1 km   b) 2 km   c) 3 km   d) 4 km

28. Which answer figure will complete the question figure?

  Question figure   **Answer figure**

            a)   b)   c)   d)

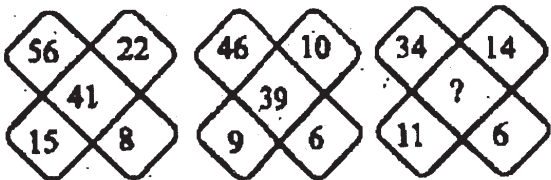**29.** Two positions of a dice are shown below:

  Question figure   **Answer figure**

  When the heart shape is at the   a)   b)   c)   d)

  top, what will be at the bottom?

Directions (30 - 31): A statement is given followed by four conclusions (a), (b), (c) and (d). You have to consider the statement to be true, even if it seems to be at variance from commonly known facts. You are to decide which of the given conclusions can definitely be drawn from the given statement. Indicate your answer.
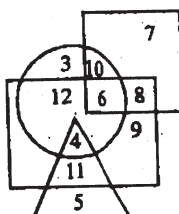
30. Fertilizer consumption in India in 1984 - 85 was 8.21 MT. By 1990 it was 13.75 MT and by 2000 it is expected to reach 16 MT. What is your conclusion ?

   a) Fertilizer consumption is steady.

   b) There is a steady decrease in fertilizer consumption.

   c) Fertilizer consumption does not show any trend.

   d) There is a steady Increase in fertilizer consumption.

31. All guilty politicians were arrested. Tom and Gopal were among those arrested.

   a) Tom and Gopal were guilty.

   b) Tom and Gopal were not politicians.

   c) All arrested people are politicians.

   d) All politicians are guilty.

Directions (32 - 33): Find the missing number from the given responses.

32.

56	22		46	10		34	14
41			39			?	
15	8		9	6		11	6

   a) 25   b) 52
   c) 12   d) 48

33.

9	11	13
3	4	7
3	4	5
81	176	?

   a) 169   b) 143   c) 455   d) 545

34. Find out the pair of numbers that does not belong to the group for lack of common property.

   a) 34 - 43   b) 62 - 71   c) 55 - 62   d) 83 - 92

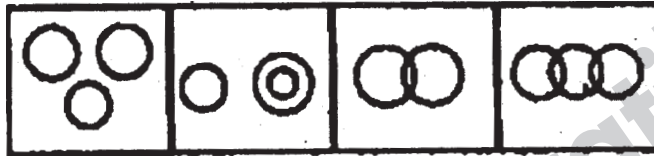**35.** Who are educated males but who do not live in urban area?

   ○ Urban People   a) 4   b) 11
   □ Civil Staff   c) 5   d) 9
   ▭ Male
   △ Educated

36. If '+' stands for Multiplication, '×' stands for Division, '−' stands for Addition and '÷' stands for Subtraction, what would the following equation stand for?

$20 - 8 \times 4 \div 3 + 2 = ?$

a) 41   b) 19   c) 16   d) 18

37. Which of the following diagram represents Mammals, Cows and Crows?

a)   b)   c)   d)

38. In a particular way of coding, the word CENTRAL is coded as ABCDEFG and PLANETARIUM as HGFCBDFEIJK. With the same coding how can we express the word LANTERN?

a) GFCDFEG   b) GFCDBEC   c) GFCDEFG   d) GPCDBEB

Directions (39 - 40): In each of the following questions find out which one of the rows and / or columns are related with each other in some way? Choose the best answer from amongst four alternatives (a), (b), (c) and (d).

39.

Rows	Columns			
	I	II	III	IV
1	3	4	8	24
2	3	5	7	21
3	7	9	6	14
4	6	4	5	12

a) Rows 1 and 2; Columns III and IV

b) Rows 1 and 2; Columns I and II

c) Rows 1 and 4, Columns III and IV

d) Rows 2 and 3; Columns I and III

40.

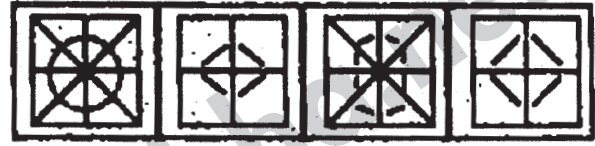| Rows	Columns			
	I	II	III	IV
1	4	3	7	14
2	2	5	8	15
3	2	12	6	10
4	5	30	6	12

a) Rows 3 and 4; Columns I and II   b) Rows 1 and 2; Columns II and III

c) Rows 2 and 3, Columns I and IV   d) Rows 2 and 4; Columns II and IV

41. A paper is folded as shown in the given figures and a cut is made. When opened how will it appear? Choose from the given responses.

Question Figures   **Answer Figures**
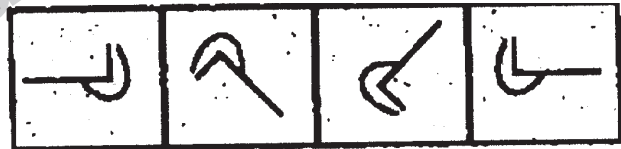

a)   b)   c)   d)

42. The question figure given below may be turned in any direction but not be picked up and turned over. Find out the correct figure which could be formed by rotating the question figure.

Question figure   **Answer figure**
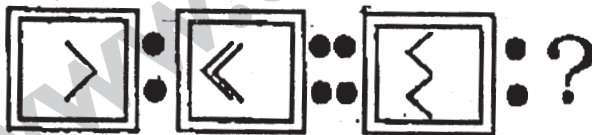

a)   b)   c)   d)

Directions (43 - 44): In these questions an address has been given which has been reproduced against (a), (b), (c) and (d). Of them, three have some mistakes, while one is Exactly the same as given below. You are to choose the one as your answer which is Exactly the same reproduction of the given address.

43. M.S. Shakuntalam Sri Niwaspuri C-108/118 Janakpuri Delhi-110063

a) M.S. Shakuntalam Sri Niwaspuil C-108/118 Janakpuri Delhi-110036

b) M.S. Shakuntalam Sri Niwaspuri C-108/118 Janakpuri Delhi-110063

c) M.S. Shakuntalam Sri Niwaspuri C-108/181 Janakpuri Delhi-110063

d) M.S. Shakuntalam Sri Niwaspuri B-108/118 Janakpuri Delhi-110063

44. Anubhav Baharti Jha M.C.R. Building III Floor, Chourangee Lane Kolkata-96

a) Anubhav Bahaiti Jha M.C.R. Building III Floor, Chourangee Lane Kolkata-69

b) Anubhav Baharti Jha M.C.R. Building III Floor, Chourangee Lane olkata-96

c) Anubhav Bahartl Jha M.C.R. Building III Floor, Chourangee line Kolkata-96

d) Anubhav Bahartl Jha N.C.R Building III Floor, Chourangee Lane Kolkata-96

Directions(45 - 50): Select the related letters/word /number/figure from the given alternatives.

45. Flow : River : : Stagnant : ?

    a) Pool   b) Rain   c) Stream   d) Canal

46. AZBY : DWEV : : HSIR : ?

    a) JQKO   b) KPOL   c) KPLO   d) KOLP

47. AKO : ? : : CMW : DNX

    a) BGL   b) BLQ   c) BGQ   d) BLV

48. 68 : 130 : : ? : 350

    a) 240   b) 222   c) 216   d) 210

49. 48 : 122 : : 168 : ?

    a) 292   b) 290   c) 225   d) 215

50.   **Question Figures**   **Answer Figures**

                                              a)   b)   c)   d)

ENGLISH LANGUAGE

Directions (51 - 55): In the following questions, some of the sentences have errors and some have none. Find out which part of a sentence has an error. The number of that part is your answer. If there is no error, your answer is (d) i.e. No error.

51. I remember (a)/ meet him (b)/ five years ago. (c)/ No error (d).

52. He asked (a)/ that how long (b)/ you would be absent. (c)/ No error (d).

53. He ate (a)/ nothing (b)/ since yesterday. (c)/ No error (d).

54. She (a)/ is working here (b)/ since 1983. (c)/ No error (d).

55. Madhuri Dixit is having (a)/ a large (b)/ fan following. (c)/No error (d).

Directions (56 - 60): 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.

56. He was accused of bringing money into the country in .... of foreign exchange rules.

    a) anticipation   b) compensation   c) perpetration   d) violation

57. One of the players forgot to ....

    a) turn up for practice   b) run away from school

    c) buy shoes for the exam   d) bring his books for the match

58. Today students should be reconciled .... the way things are changing.

    a) with   b) to   c) for   d) at

59. The country's economic growth was adversely .... by political instability.

    a) reflected   b) effected   c) affected   d) expected

60. The agenda for the meeting is .... the notice.

    a) forwarded in   b) subscribed to   c) enclosed with   d) delivered as

Directions (61 - 65): In the following questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.

61. FORTIFY

    a) create   b) generate   c) prohibit   d) strengthen

62. PACIFY

    a) calm down   b) satisfy   c) rouse   d) rejoice

63. PAUCITY

    a) surplus   b) shortage   c) excess   d) meanness

64. TEDIOUS

    a) devious   b) dull   c) distinctive   d) derogatory

65. ATROCITY

    a) envy   b) violence   c) jealousy   d) absurdity

Directions (66 - 70): In the following questions, choose the word opposite in meaning to the given word.

66. HEREDITARY

    a) carried   b) acquired   c) possessed   d) regained

67. MISERY

    a) glad   b) pleasant   c) enjoy   d) bliss

68. BARBAROUS

    a) improved   b) cordial   c) civilized   d) modified

69. DYNAMIC

    a) stable   b) still   c) lazy   d) static

70. DILIGENT

    a) intelligent   b) lazy   c) boastful   d) notorious

Directions (71 - 75) : 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.

71. Having no arguments to defend his point, the speaker began **to beat about the bush**.

    a) wander across the words   b) speak in a haphazard manner

    c) speak in a round-about manner   d) make use of irrelevant reference

72. They were offered six months rent **in lieu of** notice to vacate the building.

    a) in spite of   b) in place of   c) despite of   d) in addition to

73. The reputed company is **in the red** due to the recession.

    a) making money   b) losing money

    c) in danger   d) spending money

74. When the Principal was entering the class, all my friends quietly disappeared, leaving me alone **to face the music**.

    a) to listen to him   b) to enter into the class

    c) to bear the criticism   d) to listen to a favourable comment

75. The Kenyan team proved to be the **dark horse** in the ICC World Cup Cricket.

    a) a strong intruder   b) a skilled team

    c) the most powerful   d) an unexpected winner

Directions (76 - 80) : In the following questions, a part of the sentence is printed in bold. Below are given alternatives to the bold part at (a), (b) and (c) which may improve the sentence. Choose the correct alternative. In case no improvement is needed your answer is (d).

76. My uncle presented me the **more** expensive watch.

    a) much   b) mere   c) most   d) No improvement

77. Either Vijay or Vimal **are** going to be selected for the match.

    a) has   b) is   c) have been   d) No improvement

78. Nisha is **more funnier** than Natasha.

    a) funnier   b) funniest   c) quite funny   d) No improvement

79. The office staff members wished **each and other** on New Year's Day.

    a) one other   b) one another   c) each another   d) No improvement

80. The two brothers shared the property **beside** themselves.

    a) among   b) between   c) amidst   d) No improvement

Directions (81 - 85): In the following questions, choose the one which can be substituted for the given words/ phrase.

81. A person who loves mankind

    a) misanthrope   b) anthropologist   c) philanthropist   d) mercenary

82. To confirm with the help of evidence

    a) corroborate   b) implicate   c) designate   d) extricate

83. The action of looking within or into one's own mind

    a) observation   b) examination   c) introspection   d) introvert

84. One who has narrow and prejudice religious views

    a) religious   b) fanatic   c) bigot   d) god-fearing

85. Capable of being interpreted in two ways

    a) confusing   b) unclear   c) ambiguous   d) ambivert

Directions (86 - 95): In the following passage, some of the words have been left out. First read the passage over and try to understand what it is about. Then fill in the blanks with the help of the alternatives given.

PASSAGE

Indu 'didda' loved to wear saris. Her **(86)** collections, which Sonia inherited, were remarkable for not only **(87)** taste, but also the **(88)** of weaves and traditional representations. I do not think any other public figure **(89)** the first five decades after independence was so **(90)** to acquire saris of distinct **(91)** as 'didda' did. **(92)** you noticed this fact when meeting her, you not only joined her circle of **(93)** persons on traditional textiles. **(94)** also got a chance to bring her **(95)** to the cause you were espousing. Now this was very rare.

86. a) private   b) peculiar   c) personnel   d) particular

87. a) extravagant   b) worthy   c) good   d) suitable

88. a) uniformity   b) mixture   c) extent   d) variety

89. a) with   b) in   c) for   d) since

90.	a) keen	b) attracted	c) earnest	d) enthusiastic
91.	a) base	b) wave	c) weave	d) length
92.	a) When	b) Also	c) If	d) But
93.	a) snobbish	b) knowledgeable	c) smart	d) wonderful
94.	a) Hence	b) So	c) Thus	d) But
95.	a) notice	b) attention	c) observation	d) concern

Directions (96 - 100): In the following questions, you have one brief passage with 5 questions.

Read the passage carefully and choose the best answer to each question out of the four alternatives.

PASSAGE

This is the thorny side of the prevailing examination system. Most examiners have perfected their skill in making it a veritable nightmare for majority of the students.

Quite unwittingly we have increased the enrolment in schools alarmingly. Most of the students have neither the requisite aptitude to learn nor any clear-cut goal in life. The destiny of students would be decided in the final examination of a written nature to-test bookish, rote memory.

All laudable objectives of kindling originality and problem solving ability are trumpeted only in educational seminars and workshops. Ultimately all these are gone with the wind. No wonder examination hangs like a Damocles' sword.

Compare this with a related discipline such as music and dance. None would venture to seek entry into such centres of excellence unless one has proven aptitude to profit from training.

Here the students have excellent rapport with their teachers who evaluate their performance on a day-to-day basis and provide constant feedback. Students enjoy practising at home what they are taught in class.

As they realise their progress by constant reinforcement they welcome and enjoy examination in class. Under the watchful guidance of committed teachers, students grow and blossom out as well-trained artistes.

This is possible and feasible because the teacher-pupil ratio is ideal and the attitude of the learner is based on devotion and dedication.
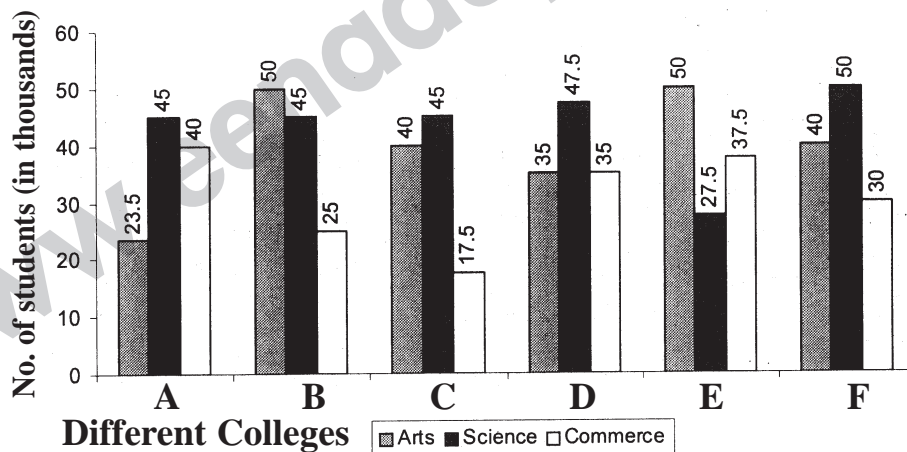
96. "Ultimately all these are gone with the wind." The above sentence shows that the writer

   a) enjoys the prevailing situation

   b) regrets our ignoring the aims of true education

   c) is quite satisfactory about the syllabus

   d) makes fun of teachers and their students

97. The passage emphasises the need for

   a) making dance and music compulsory in schools.

   b) making examinations an enjoyable experience.

   c) seeking easy questions in the examinations.

   d) warning examiners who harass students in the examinations.

98. The writer is dissatisfied with the examiners because they test students

   a) memory   b) originality

   c) aptitude   d) creativity

99. The writer's intention to compare the topic of discussion, with that of dance and music is to.

   a) show how students of dance and music enjoy not only learning but also examinations.

   b) popularise dance and music among all children.

   c) congratulate teachers who take good care of their students.

   d) prove that dance and music alone can bring peace to us.

100. According to the passage, the objectives of education should be

   a) to teach dance, music and drama to students in schools and colleges

   b) to reduce teacher-pupil ratio

   c) not to test bookish, rote memory

   d) to encourage originality and problem solving ability

Quantitative Aptitude

101. A number when divided by 296, gives a remainder 75. When the same number is divided by 37, the remainder will be

a) 1   b) 2   c) 8   d) 11

102. If x : y = 7 : 3 then the value of $\dfrac{xy + y^2}{x^2 + y^2}$ is

a) $\dfrac{3}{4}$ b) $\dfrac{4}{3}$ c) $\dfrac{3}{7}$ d) $\dfrac{7}{3}$

103. Tea at Rs. 126 per kg and at Rs. 135 per kg are mixed with a third variety in the ratio 1 : 1 : 2. If the mixture is worth Rs. 153 per kg, the price of the third variety per kg is

a) Rs.169.50   b) Rs.175.50   c) Rs.175   d) Rs.185

104. The price of an article was decreased by 10% and again reduced by 10%. By what percent should the price have been reduced once, in order to produce the same effect as these two successive reductions?

a) 15   b) 19   c) 20   d) 25

105. A student has to obtain 33% of total marks to pass. He got 25% of total marks and failed by 40 marks. The number of total marks is

a) 800   b) 300   c) 500   d)1000

Directions (106 - 110): Study the following Graph carefully and answer the questions given below:

Total Number of Arts, Science and Commerce Students in Various Colleges

106. The number of students taking Arts in college B, is how many thousand fewer than the number of students taking Arts in college A and college C together ?

a) 12.5   b) 27.5   c) 50   d) 10

107. In college F the students taking Commerce is what percent of the total number of students taking Arts, Science and Commerce in all?

a) 45   b) 25   c) 59   d) 70

108. How many candidates (in thousands) have taken Commerce from all the colleges?

a) 165   b) 177   c) 185   d) 193

109. What is the respective ratio of the number of the students taking Science to the number of students taking Arts in college D?

a) 14:19   b) 12:17   c) 17:19   d) 19:14

110. What is the average number of students (in thousands) taking up Science from all the six colleges together? (Rounded off to two digits after decimal)

a) 44.90   b) 43.33   c) 51.33   d) 49.90

111. If $a + b + c = 2s$ then find the value of $(s - a)^3 + (s - b)^3 + 3(s - a)(s - b)c$

a) c b) c^2 c) c^3 d) $2c^2$

112. In selling an article for Rs. 76, there is a profit of 52%. If it is sold for Rs. 75, the profit percent will be

a) 44   b) 46   c) 48   d) 50

113. A point O in the interior of a rectangle is joined with each of the vertices A, B, C and D, then

a) $OB^2 + OD^2 = OC^2 + OA^2$ b) $AO^2 - OD^2 = OC^2 - OA^2$

c) $AO^2 + OD^2 = BO^2 + OC^2$ d) $AO^2 + OB^2 = AC^2 - OD^2$

114. If AD, BE, CF are the medians of a $\triangle ABC$ then the correct relation between the sum of the squares of sides to the sum of the squares of median is :

a) $2(AB^2 + BC^2 + AC^2) = 3(AD^2 + BE^2 + CF^2)$

b) $4(AB^2 + BC^2 + AC^2) = 3(AD^2 + BE^2 + CF^2)$

c) $3(AB^2 + BC^2 + AC^2) = 4(AD^2 + BE^2 + CF^2)$

d) None of these

115. Of the three numbers, first is twice the second and second is twice the third. The average of three numbers is 21. The smallest of the three numbers is

a) 9   b) 6   c) 12   d) 18

116. The difference between compound interest and simple interest on Rs.2500 for 2 years at 4% per annum is

a) Rs.40   b) Rs.45   c) Rs.14   d) Rs.4

117. If the compound interest on a certain sum for 2 years at 3% per annum is Rs.101.50, then the simple interest on the same sum at the same rate and for the same time will be?

a) Rs.90.00   b) Rs.95.50   c) Rs.100.00   d) Rs.98.25

118. Match the following:

1. Incentre   2. Circumcentre   3. Centroid   4. Orthocentre

(A) The point of intersection of all the three altitudes of a triangle.

(B) The point of intersection of all the three medians of any triangle.

(C) The point of intersection of all the three angle bisectors of a triangle.

(D) The point of intersection of the perpendicular bisectors of the sides of a triangle.
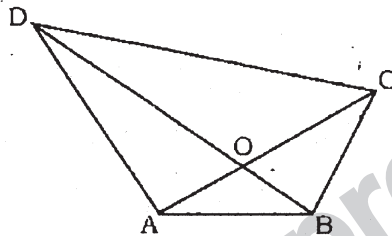
The correct match is :

    A   B   C   D   A   B   C   D

a) 1   2   3   4   b) 4   3   1   2

c) 4   3   2   1   d) 1   3   4   2

119. If ABCD is a quadrilateral whose diagonals AC and BD intersect at O, then:

a) $(AB + BC + CD + DA) < (AC + BD)$

b) $(AB + BC + CD + DA) > 2(AC + BD)$

c) $(AB + BC + CD + DA) > (AC + BD)$

d) $(AB + BC + CD + DA) = 2(AC + BD)$

120. A student rides on bicycle at 8 km/hour and reaches his school 2.5 minutes late. The next day he increases his speed to 10 km/ hour and reaches school 5 minutes early. How far is the school from his house ?

a) $\frac{5}{8}$ km   b) 8 km   c) 5 km   d) 10 km

121. A boat goes 20 km downstream in one hour and the same distance upstream in two hours. The speed of the boat in still water is
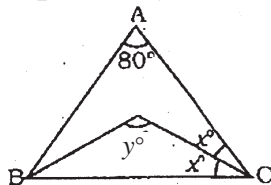
a) 15 km/hr.   b) 10 km/hr.   c) 5 km/hr.   d) 7.5 km/hr.

122. A and B can do a piece of work in 30 days while B and C can do the same work in 24 days and C and A in 20 days. They all work together for 10 days when B and C leave. How many days more will A take to finish the work?

a) 18 days   b) 24 days   c) 30 days   d) 36 days

123. 39 persons can repair a road in 12 days working 5 hours a day. In how many days will 30 persons working 6 hours a day complete the work?

a) 10   b) 13   c) 14   d) 15

124. One pipe can fill a tank three times as fast as another pipe. If together the two pipes can fill the tank in 36 minutes, the slower pipe alone will be able to fill the tank in

a) 81 minutes   b) 108 minutes   c) 144 minutes   d) 192 minutes

125. A solid metallic spherical ball of diameter 6 cm is melted and re-casted into a cone with diameter of the base as 12 cm. The height of the cone is

a) 6 cm   b) 2 cm   c) 4 cm   d) 3 cm

126. The circumference of a circle is 100 cm. The side of a square inscribed in the circle is

a) $\dfrac{100\sqrt{2}}{\pi}$ cm   b) $\dfrac{50\sqrt{2}}{\pi}$ cm   c) $\dfrac{100}{\pi}$ cm   d) $50\sqrt{2}$ cm

127. If the radius of a sphere is increased by 2 cm, its surface area increases by 352 cm^2. The radius of the sphere before increase was $\left(\text{take } \pi = \dfrac{22}{7}\right)$

a) 3 cm   b) 4 cm   c) 5 cm   d) 6 cm

128. Find the angle between the minute hand of a clock and the hour hand when the time is 7 : 20 AM.

a) $100°$ b) $105°$ c) $120°$ d) $115°$

129. A point O in the interior of a rectangle is joined with each of the vertices A, B, C and D, then

a) $OB^2 + OD^2 = OC^2 + OA^2$ b) $AO^2 - OD^2 = OC^2 - OA^2$

c) $AO^2 + OD^2 = BO^2 + OC^2$ d) $AO^2 + OB^2 = AC^2 - BD^2$

130. $\dfrac{a^2}{(a-b)(a-c)} + \dfrac{b^2}{(b-c)(b-a)} + \dfrac{c^2}{(c-a)(c-b)} = ?$

a) 1   b) -1 c) -2 d) 2

131. If $\cot\theta + \tan\theta = x$ and $\sec\theta - \cos\theta = y$, then $(x^2 y)^{\frac{2}{3}} - (xy^2)^{\frac{2}{3}} = ?$

    a) 4   b) 3   c) 2   d) 1

132. In the given figure, $\angle A = 80°$, $\angle B = 60°$, $\angle C = 2x$ and $\angle BDC = y°$. BD and CD bisect angles B and C respectively. The values of x and y respectively are:

    a) $15°$ and $70°$ b) $10°$ and $160°$ c) $20°$ and $130°$ d) $20°$ and $125°$

133. If $4x - \dfrac{2}{3x} = 4$, $x \neq 0$, then $8x^3 - \dfrac{1}{27x^3} = ?$

    a) 10   b) 9   c) 12   d) 14

134. The chord AB of a circle of centre O subtends an angle 0 with the tangent at A to the circle. $\angle ABO$ is:

    a) θ b) $90° - \theta$ c) $90° + \theta$ d) $2(\pi - \theta)$

135. Determine the area of trapezium whose sides are: $x = 0$, $y = 0$, $y = 4$ and $2x + y = 6$.

    a) 4 sq. units   b) 8 sq. units   c) 6 sq. units   d) 16 sq. units

136. Of the three numbers, the first is 3 times the second and the third is 5 times the first. If the average of the three numbers is 57, the difference between the largest and the smallest number is

    a) 9   b) 18   c) 126   d) 135

137. A rhombus of side 10 cm has two angles of $60°$ each. Then, the length of diagonals are

    a) $10\sqrt{3}$, 10 cm   b) $10\sqrt{2}$, 10 cm   c) 5, 10 cm   d) None of these

138. In the given figure, PQRS is a square and $\angle ABC = 90°$. If AQ = BR = SC, then consider the following statements:

    a) Only I and IV are correct   b) I, II and III are correct

    c) II, III and IV are correct   d) All are correct

139. The product of two numbers is 2028 and their HCF is 13. The number of such pairs is

    a) 1   b) 2   c) 3   d) 4

140. The three vertices of ΔABC are A (1, 4), B (−2, 2) and C (3, 2). The area is:

    a) 5 sq.units   b) 6 sq.units   c) 7 sq.units   d) 15 sq.units

141. If $a \otimes b = (a \times b) + b$, then $5 \otimes 7$ equals to

    a) 12   b) 35   c) 42   d) 50

142. Which of the following statements is incorrect?

    a) A circle is symmetrical about the diameter

    b) Two circles are divided symmetrically by the line passing through their centres.

    c) More than one circle can be drawn through three non- collinear points.

    d) Two circles cannot cut each other in more than two points without coinciding entirely.

143. If $\sin B = \dfrac{1}{2}$, then $3 \cos B - 4 \cos^3 B =$

    a) 1   b) $\dfrac{3}{4}$ c) 0   d) $2\dfrac{1}{2}$

144. If $\sec \alpha = \dfrac{5}{4}$, then $\dfrac{\tan \alpha}{1 + \tan^2 \alpha} =$

    a) $\dfrac{9}{25}$ b) $\dfrac{12}{25}$ c) $\dfrac{3}{4}$ d) $\dfrac{1}{25}$

145. If $x = 2 + \sqrt{3}$, find the value of $x^3 + \dfrac{1}{x^3}$

    a) 52   b) 54   c) 56   d) 58

146. If $\tan A = 1$ and $\tan B = \sqrt{3}$, then $\cos A . \cos B \sin A . \sin B$ is equal to

    a) $\dfrac{1 + \sqrt{3}}{2\sqrt{2}}$ b) $\dfrac{1 - \sqrt{3}}{2\sqrt{2}}$ c) $\dfrac{2\sqrt{2}}{3}$ d) 1

147. If $a = 0.25$, $b = -0.05$, $c = 0.5$, then the value of $\dfrac{a^2 - b^2 - c^2 - 2bc}{a^2 + b^2 - 2ab - c^2}$ is

    a) $\dfrac{7}{8}$ b) $\dfrac{14}{17}$ c) 1   d) $\dfrac{25}{16}$

148. If AB is the chord at the circle with centre O. SAT and RBM are the tangents at A and B respectively then which of the following is correct?

    a) $x > y$ b) $\angle SAB = y$

    c) $\angle SAB = y$ and $\angle RBA = x$ d) $x = y$

149. A vertical tower stands on a horizontal plane and is surmounted by a vertical flag staff of height h. At a point on the plane, the angle of elevation of the bottom of the flag staff is α and that of the top of the flag staff is β. Then, the height of the tower is

a) htanα b) $\dfrac{h\tan\alpha}{\tan\beta - \tan\alpha}$ c) $\dfrac{h\tan\alpha}{\tan\alpha - \tan\beta}$ d) None of these

150. A man on the top of a tower, standing on the sea-shore, finds that a boat coming towards him takes 10 minutes for the angle of depression to change from $30°$ and $60°$. How soon will the boat reach the sea-shore?

a) 5 minutes b) 10 minutes c) $\sqrt{3}$ minutes d) None of these

General Awareness

151. Where is the satellite launching centre of India located?

a) Ahmedabad b) Hassan c) Sriharikota d) Thumba

152. Which of the following is not correctly matched with regard to Project Tiger Reserves?

a) Sariska - Alwar b) Valmiki - Hazaribagh

c) Pench - Garhwal d) Nagarjunasagar - Srisailam

153. The Harappan Civilisation was discovered in the year:

a) 1935 b) 1942 c) 1901 d) 1922

154. Muhammad-Bin-Tughlaq was proficient in

a) Art b) Music c) Calligraphy d) Philosophy

155. The speed of light with the rise in the temperature of the medium:

a) Increases b) Decreases

c) Remains unaltered d) Drops suddenly

156. Clothes keep us warm in winter because they

a) supply heat

b) do not radiate heat

c) prevent air from contacting the body

d) prevent the heat of the body from escaping

157. In a refrigerator what produces the cooling?

    a) The ice which deposits on the freezer

    b) The sudden expansion of a compressed gas

    c) The evaporation of a volatile liquid

    d) None of these

158. Why are we able to hear short wave broadcasts better than long wave broadcasts?

    a) Short waves are more energetic than long waves.

    b) Short waves are unaffected by atmospheric disturbances.

    c) Short wave broadcasts are made by nearby radio stations.

    d) By convention, short waves are meant for long distances, whereas long waves are reserved for short distances.

159. Quartz is made of

    a) Calcium Sulphate   b) Calcium Silicate

    c) Sodium Sulphate   d) Sodium Silicate

160. What was the basis for constituting the Constituent Assembly of India?

    a) The Resolution of the Indian National Congress

    b) The Cabinet Mission Plan, 1946

    c) The Indian Independence Act, 1947

    d) The resolutions of the Provincial/ State Legislatures of the Dominion of India

161. Trade winds blow from the

    a) equatorial low pressure   b) polar high pressure

    c) subtropical high pressure   d) subpolar low pressure

162. In which State is Jawahar Tunnel located?

    a) Himachal Pradesh   b) Jammu & Kashmir

    c) Uttaranchal   d) Goa

163. The type of note issue system followed in India is:

    a) Maximum fiduciary system   b) Minimum reserve system

    c) Proportional fiduciary system   d) Fixed fiduciary system

164. The credit of discovering the sea route of India goes to the

    a) French   b) Dutch   c) Portuguese   d) English

165. The song 'Jana-Gana-Mana' composed by Rabindra Nath Tagore was first published in January 1912 under the title of

    a) Jay He   b) Rashtra Jagriti   c) Bharat Vidhata   d) Matribhoomi

166. Which has been the field of activity of Pt. Bhimsen Joshi?

    a) Literature   b) Classical music (Vocal)

    c) Education   d) Journalism

167. Who has instituted the 'Moorti-Devi Sahitya Puraskar'?

    a) Ministry of HRD, Central Government

    b) Sahitya Academy

    c) Bharatiya Jnanapith Trust

    d) Bharatiya Vidya Bhavan

168. Where did the dance form 'Mohini Attam' develop?

    a) Manipur   b) Kerala   c) Karnataka   d) Tamilnadu

169. Who was the first woman to become the Prime Minister of a country?

    a) Golda Meir   b) Margaret Thatcher

    c) Indira Gandhi   d) Sirimavo Bandaranaike

170. Who among the following first propounded the idea of Basic Education?

    a) Jawahar Lal Nehru   b) Raja Ram Mohan Roy

    c) Mahatma Gandhi   d) Dayanand Saraswati

171. Which one of the following is an abnormal constituent of urine?

    a) Creatinine   b) Urea   c) Uric acid   d) Ketone bodies

172. Which one of the following cells produces antibodies?

    a) Eosinophils   b) Monocytes

    c) Basophils   d) Lymphocytes

173. The Vitamin which helps in clotting of blood is:

    a) A   b) D   c) B   d) K

174. At very high altitude, the Red Blood Corpuscles in the human body will:

    a) increase in size   b) decrease in size

    c) increase in number   d) decrease in number

175. Processing of a data file to reduce its size for storage on disk is termed:

    a) Amplification   b) Reduction   c) Compression   d) Rarefaction

176. On imprisonment in 1908 by the British, Bal Gangadhar Tilak was sent to

    a) Andaman and Nicobar   b) Rangoon

    c) Singapore   d) Mandalay

177. Which two countries are connected by an underwater tunnel?

    a) England and Spain   b) Malaysia and Singapore

    c) England and Belgium   d) France and England

178. Which of the following is not associated with the UN Organisation?

    a) ILO   b) WHO   c) FAO   d) ASEAN

179. When did India join the United Nations?

    a) 1945   b) 1947   c) 1950   d) 1954

180. A test tube baby means:

    a) a baby grown in a test tube.

    b) embryo fertilised in uterus and developed in test tube.

    c) embryo fertilised and developed in uterus.

    d) fertilisation in vitro and then transplantation in the uterus.

181. Find out the mismatched pair.

    a) Tea - Assam   b) Groundnut - Bihar

    c) Coconut - Kerala   d) Sugarcane - Uttar Pradesh

182. Arrange the following in chronological order:

    I. Dandi March   II. Simon Commission

    III. Poona Pact   IV. Gandhi Irwin Pact

    a) II, I, III, IV   b) II, I, IV, III   c) IV, III, I, II   d) IV, III, II, I

183. The deepest trench of the world 'The Mariana Trench' is located in the:

    a) Indian Ocean   b) Atlantic Ocean   c) Arctic Ocean   d) Pacific Ocean

184. Green glands are associated with

    a) Reproduction   b) Excretion   c) Respiration   d) Digestion

185. Which one of the following cities has the maximum number of registered vehicles on the road?

    a) Mumbai   b) Kolkata   c) Delhi   d) Chennai

186. Match the dams and the States in which they are situated:

Dam	State
A. Hirakud	1. Chhattisgarh
B. Mettur	2. Orissa
C. Mahanadi	3. Karnataka
D. Almatti	4. Tamilnadu

	A	B	C	D		A	B	C	D
a)	3	2	4	1	b)	2	4	1	3
c)	1	3	2	4	d)	4	1	3	2

187. Who is competent to dissolve the Rajya Sabha?

a) The President   b) The Chairman, Rajya Sabha

c) The Lok Sabha   d) None

188. When did India win a gold medal in hockey at the Olympics last time?

a) 2000 Sydney   b) 1996 Atlanta   c) 1980 Moscow   d) 1972 Munich

189. Of the following words in the Preamble of the Constitution of India, which was not inserted through the Constitution (Forty Second Amendment) Act, 1976?

a) Socialist   b) Secular   c) Dignity   d) Integrity

190. Which among the following is a martial dance?

a) Kathakali   b) Bamboo dance of Meghalaya

c) Chhau of Mayurbhanj   d) Bhangra of Punjab

191. A piece of paper and a cricket ball are dropped from the same height. Under which of the following conditions do both reach the surface simultaneously?

a) They must have the same volume

b) They must have the same density

c) They must have the same mass

d) They must be dropped in vacuum

192. Which from the following is not true when the interest rate in the economy goes up?

a) Savings increases   b) Lending decreases

c) Cost of production increases   d) Return on capital increases

193. The stability of a pond ecosystem depends on

   a) micro-organisms and fishes

   b) micro-organisms and zoo planktons

   c) fishes and reptiles

   d) producers and consumers

194. The Bhilai Steel Plant has been established with the assistance of

   a) U.K.   b) U.S.A.   c) Russia   d) Germany

195. Which from the following territories does not have a border with Arunachal Pradesh?

   a) Assam   b) Nagaland   c) Bhutan   d) Manipur

196. Choclates can be bad for health because of a high content of

   a) Zinc   b) Nickel   c) Lead   d) Cobalt

197. What is the maximum permitted length of cricket bat?

   a)   32"   b) 34"   c) 36"   d) 38"

198. Which from the following rivers does not originate in Indian territory?

   a) Mahanadi   b) Brahmaputra   c) Ravi   d) Chenab

199. Arrange the following events in the chronological order:

   (A) Birth of Prophet Mohammed

   (B) Rise of Gupta dynasty in India

   (C) Completion of the Roman Colosseum

   (D) Peter the Great becomes the Czar of Russia

   a) C, B, A, D   b) A, C, D, B   c) B, D, C, A   d) D, A, C, B

200. Indian desert is called

   a) Gobi   b) Sahara   c) Thar   d) Atacama

Key

1-d; 2-d; 3-b; 4-c; 5-b; 6-c; 7-c; 8-b; 9-b; 10-b; 11-d; 12-a; 13-a; 14-b; 15-b; 16-a; 17-b; 18-b; 19-c; 20-a; 21-b; 22-d; 23-a; 24-c; 25-c; 26-b; 27-a; 28-d; 29-d; 30-d; 31-a; 32-a; 33-c; 34-c; 35-b; 36-c; 37-b; 38-b; 39-a; 40-a; 41-c; 42-d; 43-b; 44-b; 45-a; 46-c; 47-d; 48-b; 49-b; 50-c; 51-b; 52-b; 53-a; 54-a; 55-a; 56-d; 57-a; 58-a; 59-c; 60-c; 61-d; 62-a; 63-b; 64-b; 65-b; 66-b; 67-d; 68-c; 69-d; 70-b; 71-c; 72-b; 73-b; 74-c; 75-d; 76-c; 77-b; 78-a; 79-b; 80-b; 81-c; 82-a; 83-c; 84-b; 85-c; 86-a; 87-c; 88-d; 89-b; 90-a; 91-c; 92-c; 93-b; 94-d; 95-b; 96-b; 97-b; 98-a; 99-a; 100-d; 101-a; 102-a; 103-b; 104-b; 105-c; 106-a; 107-b; 108-c; 109-d; 110-b; 111-c; 112-d; 113-a; 114-c; 115-a; 116-d; 117-c; 118-b; 119-c; 120-c; 121-a; 122-a; 123-b; 124-c; 125-d; 126-b; 127-d; 128-a; 129-a; 130-a; 131-d; 132-c; 133-c; 134-b; 135-b.; 136-c; 137-a; 138-d; 139-b; 140-a; 141-c; 142-c; 143-c; 144-b; 145-a; 146-b; 147-a; 148-d; 149-b; 150-a; 151-c; 152-c; 153-d; 154-d; 155-c; 156-d; 157-c; 158-b; 159-d; 160-b; 161-c; 162-b; 163-b; 164-c; 165-c; 166-b; 167-c; 168-b; 169-d; 170-c; 171-d; 172-d; 173-d; 174-c; 175-c; 176-d; 177-d; 178-d; 179-a; 180-d; 181-b; 182-b; 183-d; 184-b; 185-c; 186-b; 187-d; 188-c; 189-c; 190-c; 191-d; 192-c; 193-d; 194-c; 195-d; 196-b; 197-d; 198-b; 199-a; 200-c.