STATE INSTITUE OF SCIENCE EDUCATION (S.C.E.R.T), PUNJAB, MOHALI

National Talent Search Examination – 2016

State Level Test – 2016
Class – X
MENTAL ABILITY AND SCHOLASTIC APTITUDE TEST

Time: 3 Hours   **Max. Marks: 200**

Instructions for candidates:-

1. This exam is in two parts.

2. Part-I is related to Mental Ability Test.

3. Part-II relates to Scholastic Aptitude Test. It consists of nine subjects, details of which are given below:-

   i) Physics   ii) Chemistry

   iii) Biology   iv) Mathematics

   v) History   vi) Geography

   vii) Civics   viii) Economics

   ix) English

4. Each question carries one mark. All questions are compulsory.

5. You have been provided with a answer sheet (OMR) for this question paper. Darken the correct option of each question in the answer sheet (OMR) with black/blue ink.

6. Rough work may be done on the blank space provided.

7. There is no negative marking in this question paper.

8. **Do not use white fluid on OMR Answer Sheet.**

ਉਮੀਦਵਾਰਾਂ ਲਈ ਹਦਾਇਤਾਂ :

1. ਇਹ ਪ੍ਰੀਖਿਆ ਦੋ ਭਾਗਾਂ ਵਿੱਚ ਹੈ।

2. ਪਹਿਲਾ ਭਾਗ ਮਾਨਸਿਕ ਯੋਗਤਾ ਨਾਲ ਸੰਬੰਧਤ ਹੈ।

3. ਦੂਜਾ ਭਾਗ ਵਿਸ਼ਿਆਂ ਦੀ ਯੋਗਤਾ ਨਾਲ ਸੰਬੰਧਤ ਹੈ। ਇਸ ਵਿੱਚ ਨੌ ਵਿਸ਼ੇ ਹਨ, ਜਿਨ੍ਹਾਂ ਦਾ ਵੇਰਵਾ ਹੇਠ ਦਿੱਤਾ ਹੈ-

   i) ਭੌਤਿਕ ਵਿਗਿਆਨ   ii) ਰਸਾਇਣ ਵਿਗਿਆਨ

   iii) ਜੀਵ ਵਿਗਿਆਨ   iv) ਗਣਿਤ

   v) ਇਤਿਹਾਸ   vi) ਭੂਗੋਲ

   vii) ਨਾਗਰਿਕ ਸ਼ਾਸਤਰ   viii) ਅਰਥ ਸ਼ਾਸਤਰ

   ix) ਅੰਗਰੇਜ਼ੀ

4. ਹਰ ਇੱਕ ਪ੍ਰਸ਼ਨ ਦਾ ਇੱਕ ਅੰਗ ਹੈ। ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਜ਼ਰੂਰੀ ਹਨ।

5. ਤੁਹਾਨੂੰ ਇਸ ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਲਈ ਉੱਤਰ ਸ਼ੀਟ ਦਿੱਤੀ ਗਈ ਹੈ। ਉੱਤਰ ਸ਼ੀਟ (ਓ ਐਮ ਆਰ) ਵਿੱਚ ਪ੍ਰਸ਼ਨ ਦੇ ਸਹੀ ਉੱਤਰ ਨੂੰ ਕਾਲੀ/ਨੀਲੀ ਸਿਆਹੀ ਨਾਲ ਭਰ ਕੇ ਦਰਸਾਓ।

6. ਕੱਚਾ ਕੰਮ ਦਿੱਤੀ ਗਈ ਖਾਲੀ ਥਾਂ ਤੇ ਕਰਨਾ ਹੈ।

7. ਇਸ ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਵਿੱਖ ਰਿਣਾਤਮਕ (ਨੈਗੇਟਿਵ) ਮਾਰਕਿੰਗ ਨਹੀਂ ਹੈ।

8. ਉੱਤਰ ਸ਼ੀਟ (ਓ ਐਮ ਆਰ) ਉਪਰ ਵਾਸੀਤ ਫਲਿਊਡ ਦੀ ਵਰਤੋਂ ਨਾ ਕੀਤੀ ਜਾਵੇ।

MENTAL ABILITY

Directions (Q.1-6): There is a number series following a Pattern. One place is left blank. Find the correct answer from the options.

1.   42, 48, 60, 66, 78 _____
       (A) 68   (B) 93   (C) 101   (D) 104

2. $\dfrac{2}{\sqrt{5}}, \dfrac{3}{5}, \dfrac{4}{5\sqrt{5}}, \dfrac{5}{25}, ?$

       (A) $\dfrac{6}{5\sqrt{5}}$ (B) $\dfrac{6}{125}$ (C) $\dfrac{7}{25}$ (D) $\dfrac{6}{25\sqrt{5}}$

3.   15, 31, 64, 131, ?
       (A) 266   (B) 256   (C) 192   (D) 524

4.   In a certain code language "HEALTH" is written as GSKZDG, then how will "North" be written in that code?
       (A) OPSUI   (B) GSQNM   (C) FRPML   (D) IUSPO

5.   In a certain code language if 'SIR' is written as 'PSPIPR then 'MAN' can be written as
       (A) PMANP   (B) PMPAPN   (C) MANP   (D) MPANP

6.   Arrange the following words according to dictionary arrangement
       (A) Eagle   (B) Earth
       (C) Eager   (D) Early   (E) Each
       (1) a, e, b, d, c   (2) b, a, d, c, e
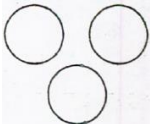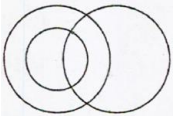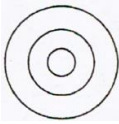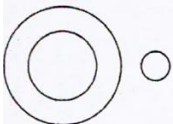   (3) b, c, e, d, a   (4) e, c, a, d, b

Directions (Q.7-8): The letters given below follow a definite pattern. Find out the missing letters to complete the pattern.

7.   ba _ cb _ b_ bab _
       (A) ca bb   (B) ac bb   (C) bc aa   (D) ba cc

8.   ab _ _ baa _ _ ab _
       (A) baabb   (B) aabab   (C) aaaaa   (D) aabaa

9.   Select the combination of numbers so that the letters arranged accordingly will form a meaningful word
       D   I   F   E   R   N
       1   2   3   4   5   6
       (A) 1, 4, 3, 6, 2, 5   (B) 6, 4, 3, 5, 2, 1   (C) 3, 5, 2, 4, 6, 1   (D) 5, 4, 3, 2, 6, 1

Direction : In the question (Q.10-11) : some symbols have been given different meanings Read them Properly and answer the questions with accurate options.

       ÷ means >
       − means =
       = means <
       Δ means +
       < means ×
       > means -
       + means ÷

10.   (A) $6\Delta3<5\div4<2\Delta6$ (B) $6<3\Delta5=4+2<6$
      (C) $8+4>5\div4+2\Delta6$ (D) $6+3>5\div4+2\Delta6$

11.   (A) $2<4<5-6+3<2$ (B) $2\Delta4<5\div6<3<2$
      (C) $2>4>5=6+2<2$ (D) $2<4\Delta5=6\Delta3>2$

12.   Some students are sitting in row. B is sitting on the extreme left of the row, K is sitting between V and R, V is sitting next to M, M is sitting next to B and Q is sitting next to R, who are sitting adjacent to V?
      (A) Q and K   (B) R and Q   (C) M and K   (D) K and R

13.   Which figure represents sparrows, Birds and Mice?

(A)   (B)   (C)   (D)

14.   Find the urban, corrupt employee in the following diagram:
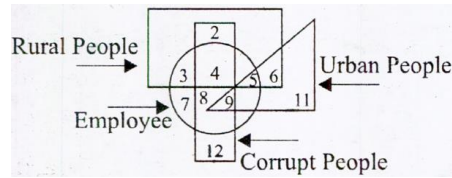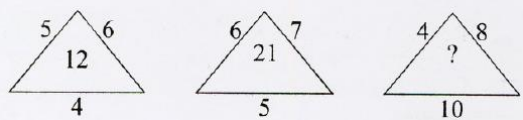

      (A) 11   (B) 9   (C) 7   (D) 12

15.   A is taller than B but shorter than C, D is taller than A but shorter than C, E is taller than B but shorter than A. Who is the tallest among them?
      (A) D   (B) C   (C) B   (D) A

Directions (Q : 16-19) What will come in place of question mark (?)

16.

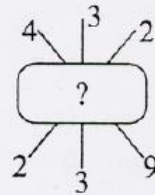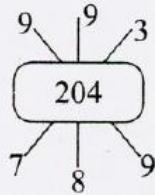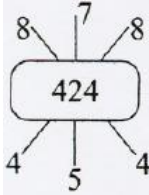| 44	64	100
34	49	169
54	81	?

      (A) 81   (B) 144   (C) 225   (D) 64

17.

      (A) 30   (B) 22   (C) 42   (D) 32

18.

      (A) 32   (B) 44   (C) 61   (D) 53

19.

(A) 6611   (B) 207   (C) 193   (D) 607

20. Which of the following words cannot be made from the letters given in question?

D E T E R M I N A T I O N

(A) MINT   (B) TEAM   (C) TAMED   (D) NORTH

Directions (Q.21-23): There are five persons P, O, R, S and T. One is football player, One is chess player and one is hockey player. P and S are unmarried ladies and do not participate in any game. None of the ladies plays chess or football. There is a married couple in which T is the husband. Q is the brother of R and is neither a chess player nor a hockey player

21. Who is the Football player ?

(A) P   (B) Q   (C) R   (D) S

22. Who is the wife of T ?

(A) P   (B) Q   (C) R   (D) S

23. Who is the hockey player ?

(A) P   (B) Q   (C) R   (D) S

24. Sunny Walked 6 metres facing towards East, then took a right turn and walked a distance of 9 metres. He then took a left turn and walked a distance of 6 metres. How far is he from the starting point ?

(A) 15 metres   (B) 21 metres   (C) 18 metres   (D) 14 metres

25. A walks 5 meters towards east. Then turns south and walks 10 metres, then turns back and walks 20 metres, now he turns left and walks 5 metres. Where is he from the starting point and in which direction?

(A) 20 metres due north   (B) 10 metres due north

(C) 10 metres due south   (D) 15 metres due north East

26. Pointing to a man in the photograph, a women says, "He is the son of my sister's mother's husband." How is the man related to the woman?

(A) Father   (B) Grand Father   (C) Uncle   (D) Brother

27. Which colour will come at the opposite of red colour?

(A) Blue   (B) Black   (C) White   (D) Yellow

28. Which number will come at the bottom of last cube?

(A) 3   (B)4   (C) 6   (D) 1

29. Which of the following will come in place of the question mark (?) in the following sequence?

6 C 7, 8 F 10, 11 J 14, 15 O 19, ?

(A) 25 U 20   (B)20 U 25   (C) 20 U 24   (D) 19 U 25

30. ADG, GJM, MPS, ?
(A) SVW (B) SVY (C) SUW (D) SWY

31. A person is to climb up a tree 60 feet high, in every second, he climbs 5 feet, but slips 4 feet, after how many seconds, he will be able to touch the top of the tree.
(A) 60 (B) 59 (C) 58 (D) 56

Directions (Q.32-34): questions are based on the sum of multiplication. Solve it and answer the serial number for correct option.

```
    A  B  C  D  E
             x  4
   ────────────────
    E  D  C  B  A
   ────────────────
```

32. Value of A is ?
(A) 7 (B) 2 (C) 8 (D) 4

33. Value of B is ?
(A) 9 (B) 8 (C) 1 (D) 6

34. Value of D is?
(A) 3 (B) 4 (C) 5 (D)7

Directions (Q.35-37): Some equal cubes are arranged in the form of a block as shown in figure. All the visible surfaces of the block except the bottom are painted.
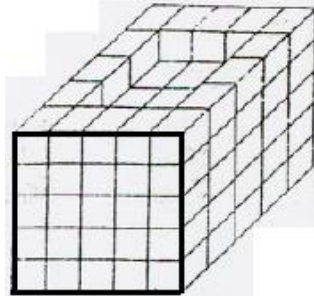
35. How many Cubes have no face painted?
(A) 27 (B) 32 (C) 36 (D) 40

36. How many cubes have only one face Painted?
(A) 9 (B) 45 (C) 57 (D) 62

37. How many cubes have only two faces Painted?
(A) 0 (B) 16 (C) 20 (D) 24

38. Ramesh and Santosh are ranked Eighth and Twelfth respectively from the top in a class of 42 students. What will be their respective ranks from the bottom in the class?
(A) 34th and 30th (B) 31st and 35th (C) 36th and 32nd (D) 35th and 31st

39. How many such 5's are there in the following number sequence each of which is immediately preceded by 3 or 4 but not immediately followed by 8 or 9?
3 5 9 5 4 5 5 3 5 8 4 5 6 7 3 5 7 5 5 4 5 2 3 5 1 0
(A) Two (B) Three (C) Four (D) Five

40. Arrange the following properly and choose the proper combination of sequence from given 4 options.

(1) Diwali   (2) Independence day (3) Christmas   (4) Republic day
(5) Holi

(A) 1, 3, 5, 2, 4   (B) 4, 5, 2, 1, 3   (C)2, 4, 1, 5, 3   (D) 4, 5, 1, 2, 3

41. Which figure can be fitted to figure 'x' so that it may become a complete square?

X   (A)   (B)   (C)   (D)
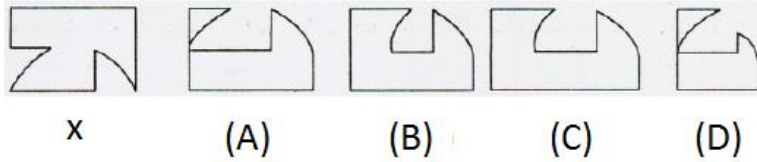
42. Figure 'x' is hidden in which of the given four figures?

X   (A)   (B)   (C)   (D)
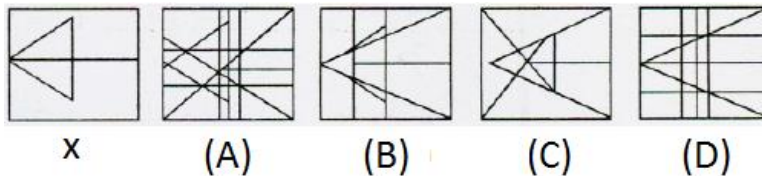
43. Which figure among 1, 2, 3, 4 will replace the question mark according series

QUESTION FIGURE   ANSWER FIGURE

(A)   (B)   (C)   (D)
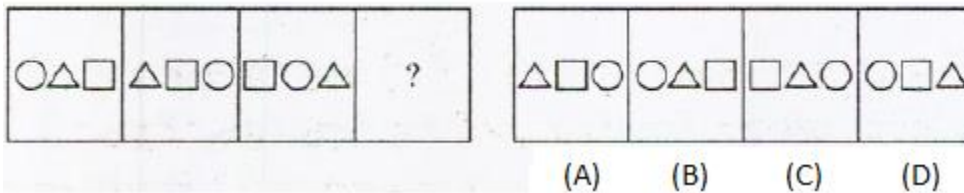
44. Find the two figures in the following which are out of Position and require inter changing of position to put the entire serial in order.

(1)   (2)   (3)   (4)   (5)
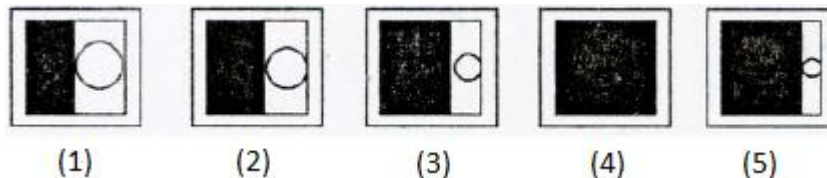
(A) 2 and 3   (B) 2 and 4   (C) 1 and 5   (D) 4 and 5

45. In Problem figure two dots are placed. This figure is followed by four answer figure, only one figure among them fulfilling the same conditions as in problem figure.

PROBLEM FIGURE   ANSWER FIGURE

(A)   (B)   (C)   (D)
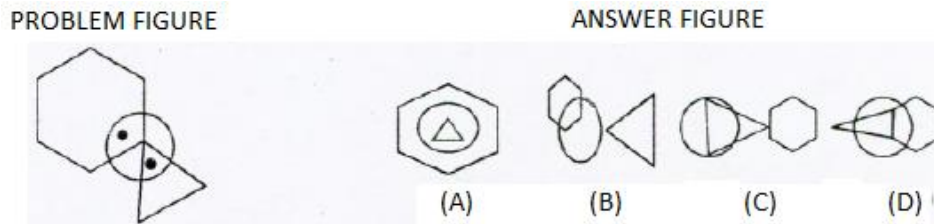
Directions (Q.46-47): In each of the following questions there is a relationship between two figures on the left side of the sign ::, The same relations ship exists between the two, to the right side of sign ::, find the correct alternative.

46.

QUESTION FIGURE   ANSWER FIGURE

K : △ :: ⃪ : ? | □ | ⬡ | ⌂ | ◿ |

47.

QUESTION FIGURE   ANSWER FIGURE

48.   Find the mirror image of figure 'x'

(x)   (A)   (B)   (C)   (D)

49.   Find the water Image of figure 'x'

(x)   (A)   (B)   (C)   (D)
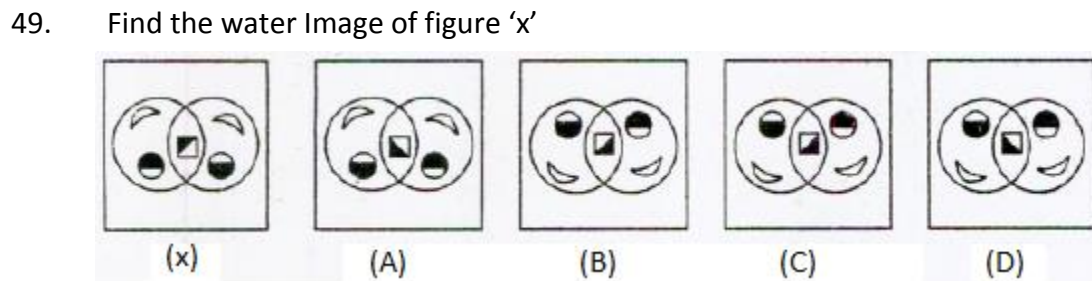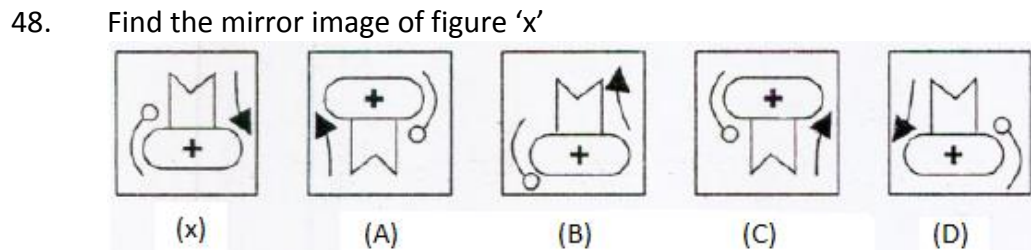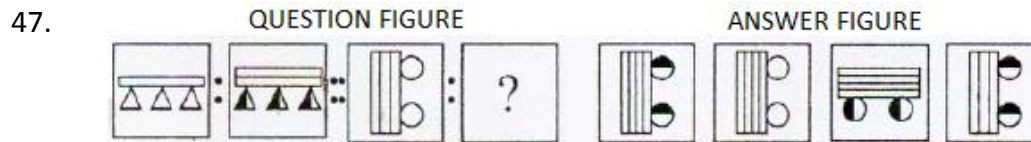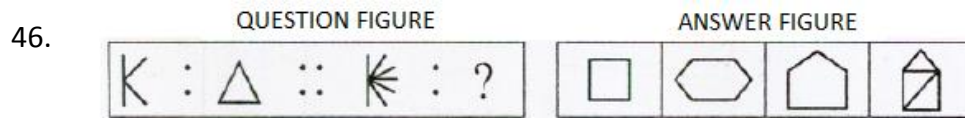
50.   A square transparent paper with a pattern is given. Find out from amongst the four alternative figures which would be like the one when the paper is folded at dotted line.

(x)   (A)   (B)   (C)   (D)
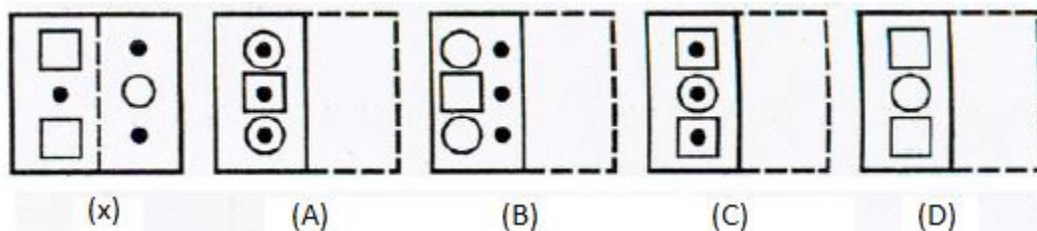
SCHOLASTIC APTITUDE
Physics

51. A satellite having circular orbit about the earth has a kinetic energy Ex. What is the minimum amount of energy to be added so that it escapes from the earth.

   (A) $\dfrac{Ex}{4}$ (B) $\dfrac{Ex}{2}$ (C) Ex   (D) 2 Ex

52. If power dissipated in the 9Ω resistor in the circuit is 36 watt. The potential difference across the 2Ω resistor is-
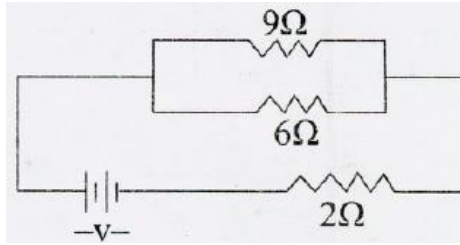
   (A) 4 volt   (B) 8 volt   (C) 10 volt   (D) 2 volt

53. A ball is released from the top of tower of height h meter. It takes T seconds to reach the ground. What is the position of the ball at T/3 second?

   (A) $\dfrac{h}{9}$ m from ground   (B) $\dfrac{7h}{9}$ m from the ground

   (C) $\dfrac{8h}{9}$ m from ground   (D) $\dfrac{17h}{9}$ m from the ground

54. A particle undergo uniform circular motion. About which point on the plane of the circle will be angular momentum of the particle remains conserved.

   (A) Centre of the circle   (B) On the circumstance of circle

   (C) Inside the circle   (D) Outside the circle

55. A body has mass 100 kg, what work has to done to increase its velocity from 2m/s to 6m/s.

   (A) 100 J   (B) 200 J   (C) 1600 J   (D) 600 J

56. 1 dioptre is the power of a lens whose focal length is

   (A) 2 m   (B) 1 m   (C) 3 m   (D) 1.5 m

57. The essential difference between AC generator and DC generator is –

   (A) DC generator will generate a higher voltage

   (B) AC generator will generate a higher voltage

   (C) AC generator has slip rings while DC generator has a commutator.

   (D) AC generator has electric magnet where as DC generator has permanent magnet.

58. A bullet of mass 60 gm moving with the velocity of 500 m/s is brought to rest in 0.01 sec. Its impulse will be-

   (A) 40 NS   (B) -30NS   (C) -20NS   (D) +30NS

59. The radioactive decay of Uranium into Thorium is represented by equation.

   $^{238}_{92}U \rightarrow {}^{234}_{90}Th + x$ What will be x

   (A) electron   (B) proton   (C) alpha particle   (D) neutron

60.   Two bobs of masses 1 kg and 2 kg are suspended from a rigid support by threads of length
        4 m and 1 m respectively. Find the ratio of their time period.
        (A) 4   (B) 8   (C) 2   (D) 12
61.   An electron and proton enter a magnetic field with equal velocities. Which one of them
        experiences more force.
        (A) electron   (B) proton
        (C) It cannot be predicted   (D) Both experiences same force
62.   Where should an object be placed in front of convex lens to get a real image of the same
        size of the object
        (A) At the principal focus of the lens
        (B) At twice the focal length
        (C) At infinity
        (D) Between optical centre of the lens and its principal focus
63.   The value of $45^{\circ}c$ temperature in Fahrenheit will be
        (A) $118^{\circ}F$ (B) $113^{\circ}F$ (C) $120^{\circ}F$ (D) $115^{\circ}F$

Chemistry

64.   You are given a solution of $AgNO_3$ which of the following do you think cannot displace, Ag
        from $AgNO_3$ solution.
        (A) Magnesium   (B) Zinc   (C) Gold   (D) Copper
65.   The atomic number of four elements A, B, C, D are 6, 8, 10, 12 respectively. The two
        elements which can react to from an ionic bond are-
        (A) A and D   (B) B and C   (C) A and C   (D) B and D
66.   Out of the following pair of compounds the unsaturated compounds are-
        (A) C_2H_6 and C_4H_6 (B) C_2H_{12} and C_5H_{12} (C) C_4H_6 and C_6H_{12} (D) C_2H_6 and C_4H_{10}
67.   Which of following set of elements is written in order of their increasing metallic
        character-
        (A) $Mg, A1, Si$ (B) C, O, N   (C) Na, Li, K   (D) Be, Mg, Ca
68.   Which of the following statements are correct about properties of colloids-
        (A) A colloid is a Homogenous mixture
        (B) The size of particles of a colloid is too small to be individually seen by naked eye.
        (C) Colloids are big enough to scatter a beam of light passing through it & make its path
        visible-
        (1) a,b,c are correct   (2) b and c are correct
        (3) a and b are correct   (4) a and c are correct
69.   Assertion (A)
        When we dip Iron nail into $CuSO_4$ Solution the colour of solutions changes.
        Reason (R) : Copper is less reactive than iron.
        (A) Both A and R are correct but R is not correct reason for A
        (B) Both A and R are correct, R is correct reason for A.
        (C) A is correct and R is incorrect.
        (D) A is oncorrect and R is correct.

70. Arrange the Li, Be, B, C, N elements according to increasing order of atomic radii.
(A) $N < C < B < Be < Li$ (B) $C < Li < N < Be < B$
(C) $Li < Be < B < C < N$ (D) $B < Be < Li < C < N$

71. Elements A, B, C having positions in periodic table-

Group 16   Group 17
--------   --------
--------   A
--------   --------
B   C

(A) A is a metal
(B) C is smaller in size as compared to B
(C) Element A gives negativity charged ion
(1) a, b and c are correct   (2) only b and c are correct
(3) only b is correct   (4) a and c are correct

72. Which of the following is having maximum double bonds-
(A) Propanone   (B) Benzene   (C) Propene   (D) Propanol

73. Carbon atom in graphite is combined with how many other carbon atoms-
(A) 1   (B) 2   (C) 3   (D) 4

74. A solution contains 58.5 gm of common salt in 360 gm of water calculate the total number of protons in solution.
(A) $21 \times 6.023 \times 10^{23}$ (B) $22.8 \times 6.023 \times 10^{23}$
(C) $200 \times 6.023 \times 10^{23}$ (D) $228 \times 6.023 \times 10^{23}$

75. A solution of calcium hydroxide is used for white washing walls. After two to three days of white washing, walls start shining due to formation of compound.
(A) CaO (B) $CaCO_3$ (C) $CaSO_4$ (D) $Ca(HCO_3)_2$

76. Which mass of O_2 (Oxygen molecule) will contain the same number of molecules as 2.5 moles of $C\ell_2$.
(A) 180 gm   (B) 100 gm   (C) 71 gm   (D) 80 gm

Biology

77. Which one of the following statement is true-
(A) In humans there are two pairs of sex chromosome.
(B) A child who inherits an x chromosome from father will be a boy.
(C) A child who inherits an y choromosome from father will be a girl.
(D) A child who inherits an x choromosome from father will be a girl.

78. The Pancreas secretes Pancreatic Juice which contains _____ enzyme for digesting proteins.
(A) Lipase   (B) Amylase   (C) Zymase   (D) Trypsin

79. Involuntary actions including blood pressure, salivation and vomiting are controlled by-
(A) Cerebellum   (B) Pons   (C) Cerebrum   (D) Medulla

80. The correct pathway of blood in circulatory sysyem is-
(A) Auricles →ventricles →Arteries →Veins
(B) Ventricles →Auricles →Veins →Arteries
(C) Ventricles →Veins →Arteries →Auricles
(D) Veins →Ventricles →Arteries →Auricles

81. Heart muscle cells are-
(A) Round, unbranched, uninucleate
(B) Non cylinderical,branched and uninucleate
(C) Cylindrical, unbranched and multi nucleate
(D) Cylindrical, branched and uninucleate

82. Which of the following is the correct features of 'Lymph'
(A) It is similar to the plasma of blood, colourless and contains less protein.
(B) Similar to the WBC of blood, colourless and contain more protein.
(C) Similar to the RBC of blood and red in colour.
(D) It contains more fat.

83. Match the item in coloum-I with those in coloum-II and select the correct choice.

	Column I		Column II
A	Food Chain	1	Elephant
B	Food Web	2	Jackal
C	Herbivore	3	Series of organism feeding on one another
D	Carnivore	4	Inter linked food chain

(1) A- 3   B-4   C-1   D-2
(2) A-2   B-1   C-3   D-4
(3) A-1   B-2   C-3   D-4
(4) A-4   B-3   C-2   D-1

84. Which of the following is not a part of the female reproductive system in human beings.
(A) Ovary   (B) Uterus   (C) Vasdeferens   (D) Fallopain tube

85. _____ smoothens bone surface at points and is also present in the nose, ear, trachea & larynx.
(A) Tendons   (B) Ligament   (C) Areolar tissues   (D) Cartilage

86. Which of the following plant group bear naked seeds and usually perennial, evergreen and woody are-
(A) Pteridophyta   (B) Gymnosperms   (C) Bryophyte   (D) Angiosperms

87. The site for complete digestion of carbohydrates, proteins and fats is-
(A) Large intestine   (B) Stomach   (C) Small Intestine   (D) Mouth

88. Which of the following are characteristic features of cells of Meristematic tissues-
(A) Actively dividing cells with dense cytoplasm, thick cell wall and prominent nuclei.
(B) Actively dividing cells with dense cytoplasm, thin cell wall and no vacuoles.
(C) Actively dividing cellswith little cytoplasm, thin cell wall and prominent nuclei.
(D) Actively dividing cells with thin cytoplasm, thin cell wall and no vacnoles

89. Potato and runners of grass is an example of –
(A) Homologous organs （B) Analogous organs
(C) Vestigial organs （D) Atavism

90. Which of the following are sensitive to sulphur dioxide
(A) Algae （B) Lichens （C) Mosses （D) Ferns

Mathematics

91. If $\dfrac{37}{13} = 2 + \dfrac{1}{x + \dfrac{1}{y + \dfrac{1}{z}}}$, Where x, y, z are integers, then the value of x + y + z is

(A) 6 （B) 8 （C) 7 （D) – 2

92. If $Sinx = Cos^2x$, then the value of $Cos^2x(1 + Cos^2x)$ will be

(A) 1 （B) 0 （C) 2 （D) – 1

93. If α and β are roots of $a(x^2 - 1) + 2bx = 0$ and the quadratic equation whose roots are

$2\alpha - \dfrac{1}{\beta}$ and $2\beta - \dfrac{1}{\alpha}$ is $px^2 + qx + r = 0$ then $p + q + r$ is equal to

(A) 2b （B) $6a - 8b$ （C) $6b - 8a$ （D) 0

94. If S_n denotes the sum of first n terms of an A-P, then the value of

$\left[(S_{3n} - S_{3n-1}) - (S_{2n} - S_{2n-1})\right]$ will be

(A) $S_n - S_{n-1}$ （B) nd （C) 0 （D) $S_{3n} - S_n$

95. Two dice are thrown at the same time and product of numbers appearing on them is noted. Probability that the product is less than 9 will be

(A) $\dfrac{1}{36}$ （B) $\dfrac{4}{9}$ （C) $\dfrac{17}{36}$ （D) $\dfrac{2}{9}$

96. If Arithmetic mean of numbers $x_1, x_2, x_3, x_4, ...x_n$ is $\overline{X}$ than Arithmetic mean of numbers

$ax_1 + b, ax_2 + b, ax_3 + b, - - -, ax_n + b$ where a and b are constants, will be

(A) $\overline{X}$ （B) $n\overline{ax} + nb$ （C) $\overline{ax}$ （D) $a\overline{x} + b$

97. The average score of boys in class X in an exam is 71 and that of the girls in that class is 73. If the average score of class X in that exam is 71.8 find the ratio of number of boys to number of girls in that class.
(A) 1 : 2 （B) 2 : 1 （C) 2 : 3 （D) 3 : 2

98. The altitude of an equilateral triangle is p*cm*. The area of this triangle is

(A) p^2cm^2 （B) $\dfrac{\sqrt{3}}{2}p^2cm^2$ （C) $\dfrac{p^2}{\sqrt{3}}cm^2$ （D) $\dfrac{\sqrt{3}}{4}p^2cm^2$

99. The sum of all the two digital natural numbers which are divisible by 7 is
(A) 743   (B) 700   (C) 728   (D) 735

100. The difference between two numbers is 1365. When the larger number is divided by the smaller number, the quotient is 6 and remainder is 15. Find the smaller number
(A) 240   (B) 270   (C) 295   (D) 300

101. If 75% of a number is added to 75, then the result is number itself. The number is
(A) 50   (B) 60   (C) 300   (D) 400

102. Find the product of
$\sqrt[3]{3}, \sqrt[4]{3}, \sqrt[12]{243}$
(A) $\sqrt{3}$ (B) 3   (C) $\sqrt[12]{3}$ (D) $\sqrt[4]{3}$

103. The sum of the ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of youngest child?
(A) 4 years   (B) 8 years   (C) 10 years   (D) 12 years

104. Which of the following trains is the fastest?
(A) 25 m/sec   (B) 1500 m/min   (C) 90 km/sec   (D) 100 km/sec

105. If $y = 5$, then what is the value of $10y\sqrt{y^3 - y^2}$?
(A) $50\sqrt{2}$ (B) 100   (C) $200\sqrt{5}$ (D) 500

106. The mean of $1^2, 2^2, 3^2, 4^2, 5^2, 6^2, 7^2$, is
(A) 10   (B) 20   (C) 30   (D) 40

107. Simplify
$3\sqrt{2} + \sqrt[4]{64} + \sqrt[4]{2500} + \sqrt[6]{8}$
(A) $11\sqrt{2}$ (B) $11\sqrt[3]{2}$ (C) $\sqrt[3]{2}$ (D) $11\sqrt{4}$

108. AD is bisector of $\angle A$ of $\triangle ABC$, which meets side BC at D. If BC = K cm, CA = ℓ cm, and AB = m cm, then the length of DC (in cm) is
(A) $\dfrac{K\ell}{m+\ell}$ (B) $\dfrac{K(m+\ell)}{\ell}$ (C) $\dfrac{Km}{m+\ell}$ (D) $\dfrac{K(m+\ell)}{m}$

109. If area of a sector of circle bounded by an arc of length 5π cm is equal to 20π cm² then its radius (in cm) is
(A) 12 cm   (B) 16 cm   (C) 8 cm   (D) 10 cm

110. In right angled triangle $\triangle ABC, \angle B = 90^\circ, AB = 5cm, BC = 12cm$, then the area of in circle of this triangle ABC will be
(A) $4\pi cm^2$ (B) $2\pi cm^2$ (C) $13\pi cm^2$ (D) $17\pi cm^2$

History

111. Why was the Vietnam was called the first television war?
(A) Brought home stories from soldiers
(B) Led to increase sale of television sets
(C) Battle scenes were shown on daily news
(D) Televisison was invented.

112. Who said these lines "whether I am a Hindu, a Mohammedan, a Parsi, a Christian or of any other creed, I am above all an Indian. Our country is India. Our nationality is Indian."
    (A) Dada Bhai Naoroji   (B) Surenderanath Banerjee
    (C) Gopal Krishan Gokhale   (D) Pherozeshah Mehta

113. Under which rules the sculpture of four lions was built on Sarnath's Pillar?
    (A) Samudragupta   (B) Ashoka
    (C) Chandragupta   (D) Harsharvardhana

114. Who was the first Viceroy of India?
    (A) Lord Clive   (B) Warren Hastings
    (C) Lord William Bentinck   (D) Lord Canning

115. To whom, Guru Gobind Singh Ji had written Zafarnama?
    (A) Babur   (B) Aurangzeb
    (C) Humayun   (D) Jahangir

116. During India's freedom struggle which one of the following led to the first 'All India Hartal'?
    (A) Protest against Jallianwala Bagh Massacre
    (B) Protest against Row Latt Act
    (C) Trial of Mahatm Gandhi
    (D) Arrival of Simon Commission

117. In 1878 the Vernacular Press Act was modelled on the
    (A) French Press Laws   (B) British Press Laws
    (C) Irish Press Laws   (D) Scottish Press Laws

118. Who was the famous Sultan of Lodhi Dynasty?
    (A) Sikander Lodhi   (B) Ibrahim Lodhi
    (C) Dilawar Khan Lodhi   (D) Daulat Khan Lodhi

119. When was Nazi Party founded?
    (A) 1917   (B) 1918
    (C) 1920   (D) 1909

120. Who had started Masand system?
    (A) Guru Har Rai Ji   (B) Guru Angad Dev Ji
    (C) Guru Nanak Dev Ji   (D) Guru Ramdas Ji

121. "Who said these words, 'Tremble, therefore, tyrants of the world'"?
    (A) Robert Darnton   (B) James Lackington
    (C) Louise/Sebastien Mercier   (D) Thomas Paine

Geography

122. Which among the following does not belong to the list of leading sugarcane producing states?
    (A) Uttar Pradesh   (B) Andhra Pradesh
    (C) Madhya Pradesh   (D) Maharashtra

123. In which union Territory maximum area is under forest?
    (A) Dadra and Nagar Haveli   (B) Andaman and Nicobar Islands
    (C) Delhi   (D) Puducherry

124. Which agent causes the formation of V-shaped valley?
(A) Snow
(B) Wind
(C) Birds and animals
(D) Water

125. What type of soil is also known as 'Tea soil'.
(A) Mountain soil
(B) Marshy soil
(C) Desert soil
(D) Saline and alkaline soil

126. Which of the following state has the highest density of roads?
(A) Goa
(B) Jammu and Kashmir
(C) Kerala
(D) Haryana

127. What is the extent of 'Tropical Heat Zone'?
(A) $23\frac{1}{2}^{\circ}$ North to $23\frac{1}{2}^{\circ}$ South
(B) $23\frac{1}{2}^{\circ}$ North to $66\frac{1}{2}^{\circ}$ North
(C) $23\frac{1}{2}^{\circ}$ South to $66\frac{1}{2}^{\circ}$ South
(D) $66\frac{1}{2}^{\circ}$ North to $66\frac{1}{2}^{\circ}$ South

128. For which of the following industry, 'Dhariwal' is famous as an important centre/place.
(A) Cotton Textile Industry
(B) Woolen Industry
(C) jute industry
(D) Silk Industry

129. Which of the major port of India is located in Sundarbans Delta?
(A) Kandla
(B) mumbai
(C) Chennai
(D) Haldia

130. Which of the following place is influenced by retreating or eastern monsoon?
(A) Amritsar
(B) Chennai
(C) Mumbai
(D) Shimla

131. Which of the following states are the major products of copper?
(A) Rajasthan and Madhya Pradesh
(B) Odisha and Rajasthan
(C) Maharashtra and Gujarat
(D) Madhya Pradesh and Gujarat

132. Hyderabad is the capital of which state?
(A) Telangana
(B) Andhra Pradesh
(C) Karnatka
(D) Tamil Nadu

Civics

133. Who give the idea to establish the 'Lok Adalat'?
(A) Sh. P.N. Bhagwati
(B) Dr. B.R. Ambedkar
(C) Sh. Lal bahadur Shastri
(D) Dr. T.N. Sheshan

134. Which words were included in preamble in of Indian constitution by 42nd amendment in 1976 -
(A) Directive Principles
(B) Democratic and Republic
(C) We the people of India
(D) Socialist, secular and unity of country

135. Which fundamental right is considered as the 'Pillar of Democracy'.
(A) Right to equality
(B) Right to religious freedom
(C) Right to freedom
(D) Right to constitutional remedies

136. How many members does Punjab send for Lok Sabha and Rajya Sabha -
(A) Lok Sabha -13   Rajya Sabha – 7
(B) Lok Sabha - 7   Rajya Sabha – 13
(C) Lok Sabha - 117   Rajya Sabha – 245
(D) Lok Sabha - 545   Rajya Sabha – 12

137. Which rights are not given to foreigners?
(A) Economic Rights   (B) Social Rights
(C) Political Rights   (D) Civil Rights

138. Who is the chairman of the Rajya Sabha?
(A) Speaker   (B) Vice-President
(C) President   (D) Prime-minister

139. Who can transfer a Governor from one state to another?
(A) Prime-minister   (B) Parliament
(C) President   (D) Supreme Court

140. Which Indian Leader gave the idea of two nations (partition) before independence?
(A) Mahatma Gandhi   (B) Jawahar Lal Nehru
(C) Liakat Ali   (D) Mohd. Ali Jinah

141. How many countries are the member of U.N.O. (United Nations) at present?
(A) 193   (B) 150
(C) 51   (D) 182

142. India opposes strongly –
(A) United Nations   (B) World peace
(C) Racialism and Apartheid policy   (D) Common Wealth of Nations

Economics

143. Which equation is true?

(A) Real Wages = $\dfrac{\text{Price Index}}{\text{Money wages}} \times 100$ (B) Real Wages = $\dfrac{\text{Money wages}}{\text{Price Index}} \times 100$

(C) Real Wages = $\dfrac{\text{Money wages} \times \text{Price Index}}{100}$

(D) Real Wages = $\dfrac{\text{Money wages}}{\text{Price Index}}$

144. Economic activities are not related to: -
(A) Production, consumption and work of House wife.
(B) Production, consumption and exchange.
(C) Production, exchange and distribution.
(D) Consumption, exchange and distribution.

145. Socialist Economy has features: -
(a) Govt. Control   (b) Collective ownership
(c) Competition   (d) Freedom of market forces
(e) Social welfare
(A) a, b and c   (B) a, b and d
(C) a, b, and e   (D) b, c and d

146. On the basis of ownership types of Economics are: -
(A) Developed, mixed & capitalistic. (B) Capitalistic, developed and socialistic
(C) Mixed, developed and under developed. (D) Socialistic, capitalistic and mixed.

147. In India which one is not indicator of level of economic development: -
(A) Per capita income (B) Expectation of life
(C) Population (D) Literacy rate

148. How many banks were nationalized by Govt. of India in 1980?
(A) 12 (B) 14 (C) 7 (D) 8

149. Which of the following organisations looks after the credit needs of Agriculture and Rural Development in India?
(A) FCI (B) IDBI (C) NABARD (D) ICAR

150. When there is investment made in the form of education, training and medical care the population becomes: -
(A) Working capital (B) Human capital
(C) Fixed capital (D) Capital growth

LANGUAGE TEST
English
Q. (151-154) Read the comprehension passage carefully and answer the following questions -
There are over a quarter of a million plant species. Only 600 or so are carnivorous who call, attract and eat bugs. They live in bogs and places where the soil lacks

151. Which statement does the author most likely agree with?
(A) There are too many species of carnivorous plants.
(B) There are a few plant species in the world.
(C) Only a small number of plants are carnivorous.
(D) A majority of plants are carnivorous.

152. Which plants traps bugs in its stem and forces them to walk forward?
(A) Corkscrew plants (B) Sundews
(C) Bladderworts (D) Pitcher plants

153. Which event happens last when Sundews eats a meal?
(A) The Sundews create mucilage.
(B) The Sundew's tentacles curl in response to the prey.
(C) The bug is attracted to the mucilage.
(D) The Sundew releases enzymes.

154. Which best defines the word treacherous?
(A) Something that provides nutrients.
(B) Something that is very bright.
(C) Something that tastes delicious.
(D) Something that has a hidden danger.

Q. (155-158) Read the comprehension passage carefully and answer the following questions: -

In 1848, gold was found in California. Thousands of people rushed there to get some. Many people liked living there and decided to stay. At that time there was no train line. In 1860 and 1861, the Pony express was the fastest way to get news to and from the West. It could make the trip in just ten days. The Pony Express had 184 stations along the trail. The stations were around ten miles apart. This is about how far a horse could run at a gallop before tiring. The rider would switch to a new horse at each station and before resting the would give his mail pouch to new rider. The mail never stopped moving, even while the horses and riders rested. Each rider had to weigh less than 125 pounds. Speed was the key. Most of the riders were teenage boys who rode at a fast pace for upto 100 miles a day. If there was an emergency one might have to ride 200 miles in a day. In its time running, the Pony Express only lost one mail pouch. The Pony Express played an important role for a time but it did not last.

155.   Which best explains why Pony riders had to weigh less than 125 pounds?
        (A) Heavier men were more expensive
        (B) Horses were scared of heavier men.
        (C) Heavier men scared customers.
        (D) Horses could make quicker with lighter men.
156.   How fast could the Pony Express take a letter from California to Massoorie?
        (A) 24 hours   (B) Ten days
        (C) Twenty days   (D) One month
157.   About how far did Pony Express riders travel on a usual day?
        (A) 10 miles   (B) 200 miles
        (C) 100 miles   (D) 2000 miles
158.   How many pouches did the Pony Express lose?
        (A) Never lost a pouch   (B) One
        (C) Two   (D) Too many to keep track

Q. (159-162) Read the following passage and answer the questions based on it.

Nehru was a many sided personality. He enjoyed reading and writing books as much as he enjoyed fighting political and social evils or residing tyranny. In him, the scientist and the humanist were held in perfect balance. While he kept looking at special problems from a scientific stand point, he never forgot that we should nourish the total man. As a scientist, he refused to believe in benevolent power interested in men's affairs. But, as a self proclaimed non-believer, he loved affirming his faith in life and the beauty of nature. Children he adored. Unlike Wordsworth, he did not see him trailing clouds of glory from the recent sojourn in heaven. He saw them as a blossoms of promise and renewal, they only hope for mankind.

159.   Nehru thought that children
        (A) Were trailing clouds of glory.
        (B) Held promise flowers to be loved and admired.
        (C) Were like flowers to be loved and admired.
        (D) Held no hope for mankind.

160. Nehru enjoyed
    (A) Reading and writing books
    (B) Fighting political and social evils
    (C) Resisting tranny
    (D) Doing all the above and much more
161. Which of the statements reflects Nehru's point of view?
    (A) Humanism is more important than science.
    (B) Science is supreme and humanism is subordinate to it.
    (C) Science and Humanism are equally important.
    (D) There is no ground between science and humanism.
162. A many sided personality means
    (A) A complex personality
    (B) A secretive person
    (C) A person having varied interests
    (D) A capable person

Q. (163-166) Read the comprehension passage carefully and answer the following questions.

Tigers are the largest and most powerful of all the cat species. Despite all of the tiger's strength, the future of the species is uncertain. It is estimated that at the start of the 20th century, there were over 1,00000 tigers living in the wild whose number has dwindled to just over 3,000. Serious threats that tigers face come from Homo-sapiens better known as humans. Tigers are hunted for many reasons like their striped skin, which is worth $10,000 in the black market. Though the fur would be an incentive for poachers, other parts of tiger can fetch pretty penny. Some people in China and other Asian countries believe that tigers parts have heling properties. Traditional Chinese medicine calls for the use of tiger bones in some prescriptions. Tigers have also been hunted for the sake of thrill in a game. Humans have done considerable damage through the destruction of habitat. Over the past 100 years tigers have lost 93% of their historic range. A major obstacle to preserve tigers is the enormous amount of territory that each tiger requires. There is no way to preserve the wild tiger population without making large sacrifices.

163. Which of the following is not a reason in the paragraph explaining why tigers are hunted?
    (A) Because tiger's skin is worth a lot of money.
    (B) Because tiger's parts are used as medicine in some cultures.
    (C) Because some tigers attach local villagers.
    (D) Because tigers are hunted for enjoyment by some people.
164. Which number is closed to the estimation of the wild tiger population in 2003?
    (A) 3000   (B) 1,00,000
    (C) 140   (D) 30,000
165. Which best explains why tigers have lost so much of their habitat according to the text?
    (A) Because humans are afraid of tigers.
    (B) Because tiger's skin is very valuable.
    (C) Because humans have changed the land.
    (D) Because tigers need so much space to survive.

166. Based on information in the text, which best explains why tigers are poached?
    (A) Poachers hunt tigers to protect their families from dangerous animals.
    (B) Poachers hunt tigers for medicine to cure sick family members.
    (C) Poachers hunt tigers to earn a large amount of money.
    (D) Poachers hunt tigers because they enjoy killing dangerous animals.

Q. (167-168) The following five sentence come from a single paragraph. The first and last sentence are given. Choose the right order in which the sentences (PQR) should appear to complete the paragraph.

167. S1. While talking to a group, one should feel self confident and courageous.
    S2. _____
    S3. _____
    S4. _____
    S5. It is like the ability to play golf.

    P. It is not as difficult as most men imagine.
    Q. One should also learn how to think calmly and clearly.
    R. Nor is it a gift bestowed by providence on only a few.

    Choose from the options given below:
    (A) RPQ   (B) PQR
    (C) QPR   (D) QRP

168. S1. Once king Shantanu met a fisher girl.
    S2. _____
    S3. _____
    S4. _____
    S5. King Shantanu did not agree to the condition.

    P. The fisherman agreed to it on one condition that his daughter's son should become the heir to the throne.
    Q. He fell in love with the girl.
    R. He went to fisherman to ask for her hand.

    Choose from the options given below:
    (A) RPQ   (B) PQR
    (C) QPR   (D) QRP

Q. (169-170) The following questions have the second sentence missing. Choose the appropriate sentence from the given options to complete it.

169. I. In order to raise company profit, the employees worked hard.
II. _____.
III. However they offer to work over time without any compensation.
(A) They decided to raise the cost of raw material.
(B) They decided to pay attention on quality.
(C) They store and black market the manufactured items.
(D) They demanded two additional increments.

170. I. Nothing comes out of nothing.
II. _____
III. A person who thinks that luck would favour him without lifting his finger even, is living in a fool's paradise.
(A) So, we should work hard.
(B) Fate is supreme and everything can be gained by it.
(C) So, we should sit idle and hope for the best.
(D) We should not worry at all and pay attention only for our welfare.

Q. (170-171)

171. Fill in the blanks with the most appropriate option from the given alternatives.
The economic _____ has affected our sales tremendously.
(A) Touch down   (B) Show down
(C) Slow down   (D) Crack down

172. Now the management graduate can expect to have a _____ life in the city.
(A) Menial   (B) Tedious
(C) Boring   (D) Prosperous

173. The village was _____ by the earthquake.
(A) Dazed   (B) Razed
(C) Fused   (D) Bemused

174. The committee decided to _____ a new member in the organization.
(A) Appoint   (B) Commit
(C) Detain   (D) Suggest

175. The teacher _____ his students.
(A) Survived   (B) Laughed
(C) Berated   (D) Shunted

176. The gypsies do not live _____ at a particular place.
(A) Broadly   (B) Willingly
(C) Voluntarily   (D) Permanently

177. She was remarkably _____ in singing and dancing.
(A) Conducive   (B) Cooperative
(C) Accomplished   (D) Fluctuating

178. _____ following all the instructions closely, he missed out an important guidelines.
(A) Instead of   (B) Inspite of
(C) Although   (D) Otherwise

179. Google is one of the most popular search engines, it is _____ by the internet users.
(A) Utilized   (B) Examined
(C) Effected   (D) Flabbergasted

180. Her silence was taken as _____ agreement.
(A) Concluded   (B) Aggravated
(C) Tacit   (D) Repented

Q. (181-185) Select the meaning of the underlined phrase/ idiom:

181. Being the head of a family, he finds it difficult <u>to keep his head above water.</u>
(A) To take rest   (B) To work properly
(C) To avoid quarrel   (D) To survive easily

182. On the eve of inspection, everything was kept <u>in apple pie order.</u>
(A) In random order   (B) In perfect order
(C) Carelessly   (D) Timely

183. Land has always been an <u>apple of discord</u> between two brothers.
(A) Cause of quarrel   (B) Cause of happiness
(C) Cause of ill health   (D) Cause of contentment

184. Mohan had to look <u>high and low</u> before he could find his scooter key.
(A) Everywhere   (B) No where
(C) Some where   (D) Always

185. We <u>kept our fingers crossed</u> till the final results were declared.
(A) Felt scared   (B) Kept praying
(C) Kept hopeful   (D) Waited anxiously

Q. (186-192) In the following passage, there are some numbered blanks. Fill in the blanks by selecting the most appropriate word from each blank from the given options:

The term "broadband" refers to telecommunication in which a wide band of frequency is ready to send (186) _____. It (187) _____ users to (188) _____ Internet at (189) _____ speed than traditional (190) _____. High-speed Internet allows users to (191) _____ data processing and high-speed (192) _____ technologies.

186. (A) Quotes   (B) Signals
     (C) Alarms   (D) Clues
187. (A) Agrees   (B) Disables
     (C) Allows   (D) Instigates
188. (A) Access   (B) Digress
     (C) Regress   (D) Supress

189.	(A) Lower	(B) Higher
	(C) Regular	(D) Normal
190.	(A) Keypads	(B) Mouse
	(C) Monitor	(B) Modems
191.	(A) Irregular	(B) Advance
	(C) Optional	(D) General
192.	(A) Transferred	(B) Transmission
	(C) Fundamental	(D) Transcendental

Q. (193-198) Choose the correct antonym from the options given below:

193. Abdicate
     (A) Join   (B) Search
     (C) Abandon   (D) Advance
194. Rectify
     (A) Bear   (B) Correct
     (C) Validate   (D) Destroy
195. Respite
     (A) Break   (B) Commencement
     (C) Fatigue   (D) Continuation
196. Upheaval
     (A) Harmony   (B) Radical change
     (C) Miracle   (D) Dynamic
197. Change the voice –
     He kept us waiting.
     (A) We had kept waiting by him.
     (B) We were kept waiting by him.
     (C) We had been kept waiting by him.
     (D) Were we kept waiting by him.
198. Who is laughing at the beggar?
     (A) By whom are the beggar being laughed at?
     (B) By whom is the beggar being laughed at?
     (C) Whom are the beggar being laughed at?
     (D) By whom were the beggar laughed at?

Q. (199-200)

199. Choose the synonym of the underlined word from the given options.
     It is very difficult to <u>retain</u> all that you hear in the class.
     (A) Keep   (B) Preserve
     (C) Recall   (D) Conserve
200. The story is too fantastic to be <u>credible.</u>
     (A) False   (B) Readable
     (C) Believable   (D) Praise worth

Answer Key

National Talent Search Examination – 2016

State Level Test – 2016
Class – X
MENTAL ABILITY AND SCHOLASTIC APTITUDE TEST

MENTAL ABILITY

1.	B	2.	D	3.	A	4.	B	5.	B	6.	D	7.	D
8.	D	9.	C	10.	A	11.	C	12.	C	13.	D	14.	B
15.	B	16.	A	17.	D	18.	D	19.	C	20.	D	21.	B
22.	C	23.	C	24.	A	25.	B	26.	D	27.	B	28.	C
29.	B	30.	B	31.	D	32.	B	33.	C	34.	D	35.	A
36.	C	37.	B	38.	D	39.	D	40.	B	41.	A	42.	D
43.	B	44.	D	45.	D	46.	B	47.	A	48.	D	49.	D
50.	C												

SCHOLASTIC APTITUDE TEST
PHYSICS

51.	C	52.	C	53.	C	54.	A	55.	C	56.	B	57.	C
58.	B	59.	C	60.	C	61.	D	62.	B	63.	B		

CHEMISTRY

64.	C	65.	D	66.	C	67.	D	68.	B	69.	B	70.	A
71.	B	72.	B	73.	C	74.	D	75.	B	76.	D		

BIOLOGY

77.	D	78.	D	79.	D	80.	A	81.	D	82.	A	83.	A
84.	C	85.	D	86.	B	87.	C	88.	B	89.	A	90.	B

MATHEMATICS

91.	B	92.	A	93.	C	94.	B	95.	B	96.	D	97.	D
98.	C	99.	C	100.	B	101.	C	102.	B	103.	A	104.	D
105.	D	106.	B	107.	A	108.	A	109.	C	110.	A		

HISTORY

111.	C	112.	A	113.	B	114.	D	115.	B	116.	B	117.	C
118.	A	119.	B	120.	D	121.	C						

GEOGRAPHY

122.	C	123.	B	124.	D	125.	A	126.	C	127.	A	128.	B
129.	D	130.	B	131.	A	132.	A						

CIVICS

133.	A	134.	D	135.	C	136.	A	137.	C	138.	B	139.	C
140.	D	141.	A	142.	C								

ECONOMICS

143.	B	144.	A	145.	C	146.	D	147.	C	148.	C	149.	C
150.	B												

LANGUAGE TEST
ENGLISH

151.	C	152.	A	153.	D	154.	D	155.	D	156.	B	157.	C
158.	B	159.	B	160.	D	161.	C	162.	C	163.	C	164.	A
165.	D	166.	C	167.	C	168.	D	169.	C	170.	A	171.	C
172.	D	173.	B	174.	A	175.	B	176.	D	177.	B	178.	C
179.	A	180.	B	181.	D	182.	B	183.	B	184.	A	185.	D
186.	B	187.	C	188.	A	189.	B	190.	D	191.	B	192.	B
193.	C	194.	B	195.	A	196.	B	197.	B	198.	B	199.	A
200.	B												