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

National Talent Search Examination – 2015

State Level Test – 2015
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 ਵਿਖ ਰਿਣਾਤਮਕ (ਨੈਗੇਟਿਵ) ਮਾਰਕਿੰਗ ਨਹੀਂ ਹੈ।

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

MENTAL ABILITY

Directions (Q.1-2): There is a number series following a pattern. One place is left blank. Find the correct answer from the options.

1. 1, 2, 4, 8, ………?........, 32
    (A) 10   (B) 12   (C) 14   (D) 16
2. 16, 33, 65, 131, (?), 523
    (A) 261   (B) 521   (C) 613   (D) 721
3. Find the odd number
    3, 7, 9, 28, 27, 84, 81, 448, 243
    (A) 84   (B) 81   (C) 28   (D) 7

Directions (Q.4-5): The letters given below follow a definite pattern. Find out the missing letters to complete the pattern.

4. -xyx-xxy-xxx-xx
    (A) yxyx   (B) xxxy   (C) yyyy   (D) xyxy
5. gfe-2g-e22-fe2-gf-22
    (A) 2f2ge   (B) e2fg2   (C) f2g2e   (D) 2fg2e
6. In a certain code language 'INVITED' is written as 'LPWISCA'. How will 'LETTERS' be written in that code language?
    (A) OUGTDPQ   (B) OUGTPQ   (C) OUGTPDQ   (D) OGUTDPP
7. In a certain code language "GREAT" is written as "79512". How will "DOWRY" be written in that code language?
    (A) 41523   (B) 46897   (C) 46597   (D) 42315

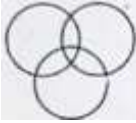**Directions (Q.8-9):** What will come in place of question mark(?)

8.
    (A) 3   (B) 4   (C) 5   (D) 6
9.
    (A) 9   (B) 10   (C) 11   (D) 12
10. Abhijot walks 6 km to the west then he turns to his right and moves 8 km then he turns to his left and moves 9 km then turns to right and moves 12 km. Now in which direction is he from his starting point and how far?
    (A) 15 NE   (B) 35 NE   (C) 25 NW   (D) 45 SE

Directions (Q.11-12): Read the following information carefully and answer the questions given below. In a certain code " her idea has merit" is written as " fa lu boo ma", "merit list has been displayed" is written as "go he lu si ma", "her name displayed there" is written as " ya si boo zo", and "name in merit list" is written as " ma ya jho he"

11. What is the code for "been"?
     (A) he   (B) lu   (C) go   (D) si

12. What is the code for "in"?
     (A) jho   (B) ma   (C) zo   (D) boo

13. If blue is called red, red is called green, green is called black, and black is called white, what is the colour of grass?
     (A) Red   (B) Black   (C) White   (D) Green

14. Which of the following operations will result in 22?
     (A) 16 +12−8×13÷15   (B) 16 −12×8 ÷13+15
     (C) 16 ÷12+8 −13×15   (D) 16×12÷8 +13−15

15. If, + means -, - , means ÷, ' ÷'means 'x' and x means +, what is the value of 125−5×10 ÷13+28 =?
     (A) 129   (B) 127   (C) 149   (D) 150

16. Which figure represents Rhombus, quadrilaterals, Polygons?
     (A)   (B)   (C)   (D)

17. Select the combination of numbers so that the letters arranged accordingly will from a meaningful word

R	T	A	N	U	E
1	2	3	4	5	6

     (A) 1, 3, 2, 6, 4, 5   (B) 4, 6, 5, 2, 3, 1   (C) 4, 3, 2, 5, 1, 6   (D) 4, 3, 2, 5, 6, 1

18. Which of the following words cannot be made from the letters given in question.
     TRANSFORM
     (A) FORT   (B) ROAM   (C) TRAIN   (D) RANSOM

19. Arrange the given words in the alphabetical order and choose the word that comes in the second place.
     (A) Reserve   (B) Real   (C) Rest   (D) Repeat

20. Which will be that next leap year after 2020?
     (A) 2026   (B) 2029   (C) 2103   (D) 2024

21. P, Q, R, S, T, U, V, W are sitting around table in same order, for group discussion at equal distances. Their positions are clockwise. If V sits in the North, then what will be the position of S?
     (A) East   (B) South-East   (C) South   (D) South-West

22. Yuvraj said, "My mother is sister of Vinod's brother." How is Vinod related to Yuvraj?
     (A) Brother-in-law   (B) Uncle   (C) Maternal Uncle   (D) Cousin

Directions (Q.23-24): Read the following information and answer the questions given below it.

Anju is older than Manju. Gopal is older than Manju but younger that Anju. Kapil is younger than Ramesh and Manju. Manju is older than Ramesh.

23.   Who is the oldest?
        (A) Anju   (B) Manju   (C) Kapil   (D) Gopal
24.   Whose age is between Gopal and Ramesh?
        (A) Manju   (B) Kapil   (C) Alka   (D) None of these
25.   Find out the connection/relation of the given row/columns with each other in some way.

ROWS		COLUMNS		
1	73	12	21	48
2	121	13	22	136
3	84	28	46	517
4	512	87	141	224

   (A) Columns   I&II   (B) Columns   III & IV
        (C) Columns   II&IV   (D) Columns   II & III
26.   A tree always has
        (A) Branches   (B) Leaves   (D) Fruits   (D) Roots
27.   How many 5's are there in the following number sequence which are immediately
        preceded by 7 and immediately followed by 6?
        755945764598756764325678
        (A) One   (B) Two   (C) Three   (D) Four

Directions (Q.28-29): In these questions one of the rules is applicable, find out the rule and correct alternative
        (A) Multiply the number by 3 and add 3 to the result.
        (B) Subtract twice the number from the square.
        (C) Multiply the number by 5 and subtract 3.
        (D) Add the number to its square.
28.   12, 20, 30, 42
29.   47, 52, 57, 62
30.   In the given question symbols do not stand for their actual meaning but indicate
        some relationship. Understand the relationship and find correct alternative
        24+33=99

        40+23=115

        16+25= 50

        64+13=?
        (A) 74   (B) 28   (C) 58   (D) 104

31. Visiting the historical monument, a tourist asked "How old is this monument?" The guide replied" The age of monument was square number two years ago and will be cube after two years. What is the age of historical monument?
(A) 343   (B) 216   (C) 123   (D) 66

Directions (Q.32-34): Some bricks of the same size have been arranged in a block in figure kept on table. All the exposed faces have been painted with colour. Answer the question given below.
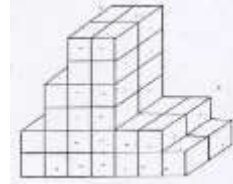
32. How many bricks are there in the figure?
(A) 40   (B) 38   (C) 46   (D) 52
33. How many faces of these bricks kept on the table, have been painted?
(A) 40   (B) 84   (C) 80   (D) 78
34. How many bricks are there whose only one face is painted?
(A) 16   (B) 28   (C) 24   (D) 20
35. It was 9:35 am by Sachin's watch, which kept correct time, when Abhinoor informed him that the last bus left the bus stop at 9:25 am Abhinoor's watch is 5 minute fast. The frequency of the bus is every 20 minutes. For how long must Sachin wait to catch the next bus?
(A) 15 minutes   (B) 10 minutes   (C) 25 minutes   (D) 5 minutes

Directions (Q.36-37): Find the odd alternative

36. (A) 25   (B) 36   (C) 49   (D) 64
37. (A) CEFH   (B) MOQS   (C) ACEG   (D) ZBDF

Directions (Q.38-39): In each of the following questions, there is a relationship between two Letters/Word/Number on the left of the sign (::). The same relationship exists between the two to right of the sigh (::) of which one is missing. Find out the missing from the alternative.
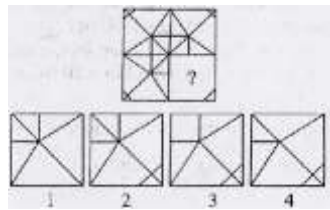
38. PI: $\dfrac{4}{?}$ ::DY:? 3

(A) $\dfrac{3}{5}$ (B) $\dfrac{4}{5}$ (C) $\dfrac{6}{5}$ (D) $\dfrac{2}{5}$
39. CIRCLE : RICELC :: SQUARE : ?
(A) QSUERA   (B) QUSERA   (C) UQSAER   (D) UQSRA
40. Gourav is fourteenth from the right end in a row of 40 boys. What is his position from the left end?
(A) 27th (B) 26th (C) 25th (D) 24th

Directions (Q.41-42): In these questions problem figure is incomplete. Find correct alternative to complete problem figure.
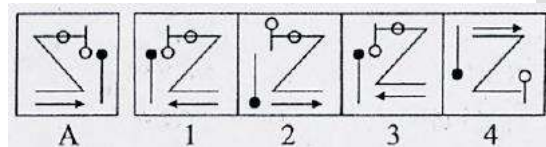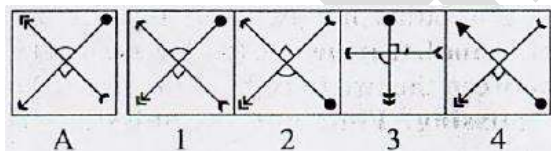
41.
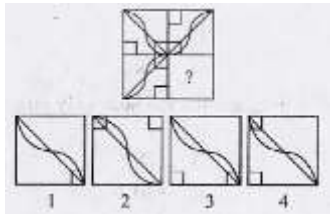
42.

43.   Find the mirror image of figure A.
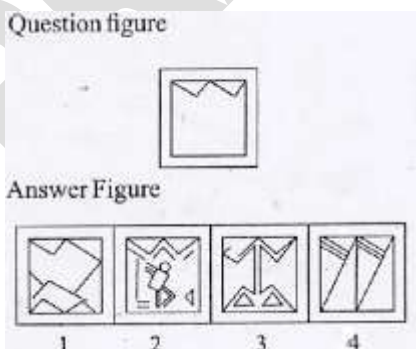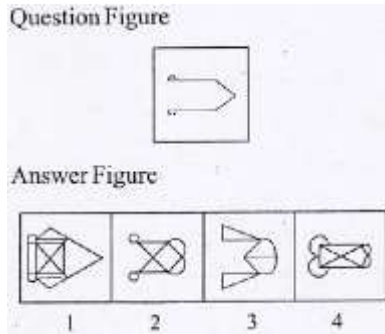

44.   Find the water image of figure A.

Directions (Q.45-46): In these questions figure is embedded in one of the answer figure. Find the correct one in which it is embedded.

45.   Question figure

Answer Figure

46.

Question Figure

Answer Figure

1	2	3	4

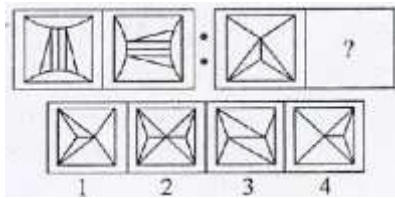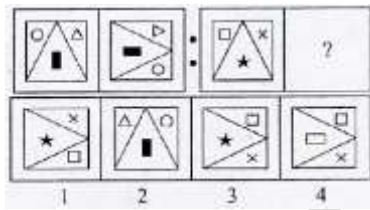**Directions (Q.47-48):** In each of the following questions there is a relationship between two figures on the left side of the sign::, The same relationship exists between the two, to the right side of sign::, Find the correct alternative.
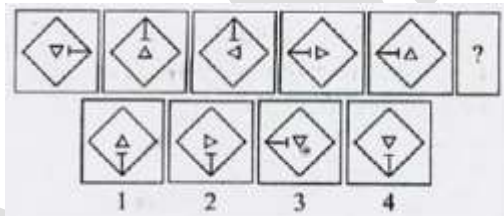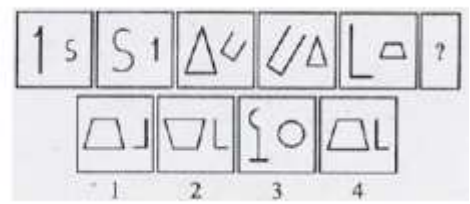
47.

48.

Directions (Q.49-50): The figures in each of the questions follow a series select the figure from the given alternatives which would continue the series.
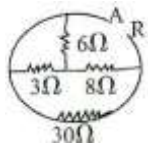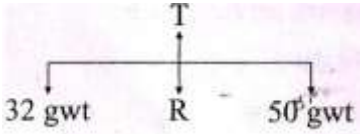
49.

50.

SCHOLASTIC APTITUDE TEST
Physics

51. Tail of a comet points away from the sun due to
    (A) Gravitational force   (B) Electrical force
    (C) Attraction of comet due to other planet
    (D) Radiation Pressure

52. Find the effective resistance between points A and B
    (A) 7.5Ω
    (B) 10.5Ω
    (C) 12.5Ω
    (D) 14.5Ω

53. In the given equation identify the particle X, $^9_4Be +_2^4 He \longrightarrow _6^{12} C + X$

    (A) Proton   (B) Neutron   (C) Electron   (D) Positron

54. What should be the new radius of earth in order to reduce escape velocity to half of the present value without changing the mass of the earth.
    (A) R/2   (B) 2R   (C) 3R   (D) 4R

55. The nature of image formed when an object is placed between Principal focus and optical centre of convex lens
    (A) Virtual, diminished   (B) Real, Magnified   (C) Virtual, Magnified
    (D) Real, Diminished

56. A person is running along a circular track of area $625\pi m^2$ $(\pi = 22/7)$ with a constant speed. Find the displacement in 15 seconds if he has to complete the race in 30 sec.
    (A) 200 m   (B) 100 m   (C) 25 m   (D) 50 m

57. A particle of mass M in a circle of radius R moves with a constant speed v. The work done when it completes one circle is

    (A) $\dfrac{Mv^2}{R} \times 2\pi R$ (B) $\dfrac{1}{2}Mv^2$ (C) $\dfrac{Mv^2}{R} \times \pi R$ (D) Zero

58. Two forces acts on the either side of the rigid body of negligible mass suspended by string as shown in figure. If R is the resultant force then the tension (T) in string will be

    (A) 26 gwt   (B) 41 gwt   (C) 82 gwt   (D) 16 gwt

59. Magnetism in a magnet is mainly due to
    (A) Orbital motion of electron (B) The spin motion (C) The nuclear charge (D) Nucleus density

60. The part of eye which changes in focal length of eye lens.
    (A) Iris   (B) Cornea   (C) Pupil   (D) Ciliary muscles

61. An anchored boat is rocked by waves whose crests are 100 m apart and whose velocity is 25 m/s. How often do the crest reach in boat.
    (A) 0.35 sec   (B) 4 sec   (C) 75 sec   (D) 2500 sec

62. The atmospheric pressure at the surface of earth is about.
    (A) 10^3 N/m^2 (B) 10^5 N/m^2 (C) 10^{-3} N/m^2 (D) 10^{-5} N/m^2

63. The electric device which works on the phenomenon of force on a current carrying conductor in magnetic field is
    (A) Generator   (B) Accelerator   (C) Motor   (D) Transformer

Chemistry

64. Which of the following will show Tyndall effect:
    (A) Milk + H_2O (B) Salt + H_2O (C) $CuSO_4$ + H_2O (D) Alcohol + H_2O

65. Which of the following equilibrium shifts in backward direction by applying high pressure?

    (A) $N_2O_4 (g) \rightleftharpoons 2NO_2 (g)$ (B) $H_2 (g) + Cl_2 (g) \rightleftharpoons 2HCl (g)$

    (C) $PCl_3 (g) + Cl_2 (g) \rightleftharpoons PCl_5 (g)$ (D) $N_2 (g) + 3H_2 (g) \rightleftharpoons 2NH_3 (g)$

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

66. Non-metals react with oxygen to form….. or …. Oxides
    (A) Acidic, Neutral (B) Acidic, Basic (C) Basic, neutral (D) Basic, Acidic

67. Which sample at STP has same number of molecules as 5L of NO_2(g) has at STP
    (A) 5g of H_2(g)   (B) 5L of methane (g)

    (C) 5 moles of O_2 (g)   (D) 5×10^{23} molecules of $CO_2 (g)$

68. Arrange the gases present in air in increasing order of boiling points.
    (A) $N_2 < Ar < O_2$ (B) $Ar < N_2 < O_2$ (C) $O_2 < Ar < N_2$ (D) $N_2 < O_2 < Ar$

69. How many electrons are present in 0.1 moles of $[PO]_4^{-3}$ ions.

    (A) $50 \times 6.023 \quad 10^{23}$ (B) $5 \times 6.023 \quad 10^{23}$

    (C) $1 \times 6.023 \quad 10^{23}$ (D) $3 \times 6.023 \quad 10^{23}$

70. Esters are sweet-smelling substances. These when treated with NaOh then:
    (i) Formation of alcohol and sodium salt
    (ii) Formation of carboxylic acid and water
    (iii) This reaction is known as sponification

    (A) (i) and (ii) are wrong (B) (ii) and (iii) are wrong (C) Only (ii) is wrong (D) Only (iii) is wrong

71. Arrange Li, C, B and Be according to increasing order of their atomic radii.
    (A) $B < Be < Li < C$ (B) $C < B < Be < Li$ (C) $Be < C < B < Li$ (D) $B < C < Be < Li$

72. Which of the following salt when dissolved in distilled water will give pH less than 7

    (A) Na_2SO_4 (B) CH_3COONa (C) $(NH_4)_2 SO_4$ (D) NaCl

73. Match the following:
    (i) Ant sting   (A) Oxalic acid
    (ii) Tomato   (B) Latic acid
    (iii) Tamarind   (C) Methanoic acid
    (iv) Sour Milk (Curd)   (D) Tartaric acid
    (A) (i)-C, (ii)-A, (iii)-B, (iv)-D   (B) (i)-C, (ii)-A, (iii)-D, (iv)-B
    (C) (i)-A, (ii)-C, (iii)-D, (iv)-B   (D) (i)-A, (ii)-C, (iii)-B, (iv)-D

74. Which of the following statements are correct about α (alpha) particle scattering experiment.
    (A) Most of the fast moving α particles passed straight through gold foil.
    (B) Some of α -particles were deflected by the foil by small angles.
    (C) Surprisingle one out od every 10 particles appeared to rebound.

    (A) (i) and (iii) are correct (B) (i) and (ii) are correct (C) (i), (ii) and (iii) are correct (D) Only (ii) is correct

75. Match the following correctly:
    (i) Washing soda   (w) Hygroscopic substance
    (ii) Sulphuric Acid   (x) Have water of crystallization
    (iii) Suspension   (y) Coagulation takes place on addition of salt.
    (iv) Colloid   (z) Particles settle down on standing
    (A) I (w) II (x) III (y) IV (z)   (B) I (x) II (w) III (z) IV (y)
    (C) I (z) II (y) III (x) IV (w)   (D) I (x) II (z) III (w) IV (y)

76. In an open vessel, the liquid keeps on evaporating. The particles of liquid absorb energy from surrounding to regain the energy lost during evaporation. This absorption of energy from the surrounding make the surroundings………. (i) Hot (ii) Cold (iii) No change in temperature of surrounding (iv) It depends upon the nature of liquid.

    Out of (i), (ii), (iii), (iv) which is correct to fill the above statement.

    (A) Only (i) is correct (B) (i) and (ii) are correct (C) (ii) is correct (D) All are correct

Biology

77. Which one of the following statements is not true about Darwin theory.

    (A) Rapid Multiplication (B) Struggle for Existence (C) Environmental effect (D) Origin of new species

78. The end product of respiration in plants are

    (A) CO_2, H_2O and energy (B) Starch and Oxygen (C) Sugar and Oxygen (D) H_2O and energy

79. Which one of the following is known as energy currency of a cell
    (A) ATP   (B) ADP   (C) Pyruvate   (D) Glucose

80. F_1 particle or oxysome are present in
    (A) Endoplasmic reticulum   (B) Chloroplast
    (C) Mitochondria   (D) Golgi complex

81. DNA replication mainly takes place in
(A) G_1 Phase (B) G_2 Phase (C) S Phase (D) M Phase

82. Out of the following which hormone regulates carbohydrates protein and fat metabolism in the body so as to provide the best balance for growth
(A) Insulin   (B) Thyroxin   (C) Oestrogen   (D) Adrenaline

83. In human beings, if the egg is not fertilized, it lives for about
(A) One day   (B) Three days   (C) Five days   (D) Eight days

84. The cell wall of fungi is made of tough complex sugar called
(A) Cellulose   (B) Chitin   (C) Pectin   (D) Lignin

85. Lung fish is connecting link between
(A) Fishes and arthropods (B) Fishes and annelids (C) Fishes and molluscs (D) Fishes and amphibians

86. The virus causing Japanese encephalitis or brain fever will enter the body through
(A) Sexual Organs   (B) Mosquito bite   (C) Lungs   (D) Air

87. The direction of Impulse in a typical neuron is from
(A) Dendron to axon   (B) Axon to Dendron
(C) Axon to nucleus   (D) Axon to medullary sheath

88. A human female with Turner's syndrome.
(A) Has one additional X chromosome   (B) Has 45 chromosome with XO
(C) Exhibits male character
(D) Is able to produce children with normal husband

89. The correct pathway of blood in circulatory system is
(A) Auricles ⟶ Ventricles ⟶ Arteries ⟶ Veins
(B) Ventricles ⟶ Auricles ⟶ Veins ⟶ Arteries
(C) Ventricles ⟶ Veins ⟶ Arteries ⟶ Auricles
(D) Veins ⟶ Ventricles ⟶ Auricles ⟶ Arteries

90. In lining organisms, an active immune system recruits many cells to the affected tissue to kill off the disease causing microbes. This recruitment process is called
(A) Syphilis   (B) Inflammation   (C) Encephalitis   (D) SARS

Mathematics

91. If a, b, c be the first, second and the last term of an A.P., then the sum of this A.P.
(A) is $\dfrac{(a-c)(b+c-2a)}{2(b-a)}$ (B) is $\dfrac{(a+c)(b+c+2a)}{2(b-a)}$
(C) is $\dfrac{(a\pm c)(b+c-2a)}{2(b-a)}$
(D) Cannot be determined unless some more information is given about the AP.

92. For what value of k, $(4-k)x^2+(2k+4)x+(8k+1)=0$ is a perfect square?
(A) 0   (B) 3   (C) 0, 3 both   (D) −3,3 both

93. If one of the zeros of the cubic polynomial x^3+ax^2+bx+c is −1, then product of the other two zeroes is
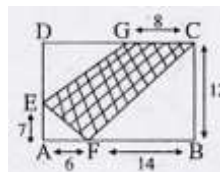(A) $b-a+1$ (B) $b-a-1$ (C) $a-b+1$ (D) $a-b-1$

94. For how many values of n (where n is an integer), the expression $\frac{\left(n_3 - 3n_2 + 5\right)}{2n - 1}$ is an integer

    (A) 8   (B) 4   (C) 11   (D) 28

95. In the given figure ABCD is a rectangle and all measurements are in centimeters. Find the area of the shaded region

    (A) 240 cm^2

    (B) 205 cm^2

    (C) 105 cm^2

    (D) 95 cm^2

96. If $\tan^2 \phi = \left(1 - e^2\right)$ then $\sec \phi + \tan^3 \phi \, \text{cosec} \phi$ is equal to

    (A) $\left(2 + e_2\right)^{3/2}$ (B) $\left(2 - e_2\right)^{3/2}$ (C) $\left(1 - e_2\right)^{3/2}$ (D) $\left(1 + e_2\right)^{3/2}$

97. If a, b, c, d, e are five consecutive odd numbers then their average is

    (A) $\left(\frac{5a + 4}{}\right)$ (B) $\frac{abcde}{5}$ (C) $\left(\frac{5a + b + c + d + e}{}\right)$ (D) a + 4

98. A number when divided by 342 gives a remainder 47. When the same number is divided by 19, what would be the remainder?

    (A) 9   (B) 8   (C) 18   (D) 11

99. A sphere and a cube have the same surface area. Find out the ratio of the volume of the sphere to that of the cube.

    (A) 6:π (B) $\sqrt{6} : \sqrt{\pi}$ (C) $\sqrt{6} : \pi$ (D) $6 : \sqrt{\pi}$

100. ABCD is a square whose vertex A lies on the origin. The coordinates of the mid-point of the diagonal AC are (p/2,1). Find the value of P the area of square ABCD is 20 sq. units

    (A) ± 6 (B) ± 20 (C) ± 10 (D) ± 36

101. The set of values of k for which the roots of the equation $3x^2 + 2x + \left(K - 1\right)K = 0$ are of opposite sign is

    (A) $\left(0,1\right)$ (B) $[0,1]$ (C) $\left(-1,1\right)$ (D) $\left(-1,0\right)$

102. The value of $4\sqrt{3} + \sqrt{129 - 72\sqrt{3}}$ is

    (A) $9\sqrt{3}$ (B) 9   (C) $9 + \sqrt{3}$ (D) $9 - \sqrt{3}$

103.
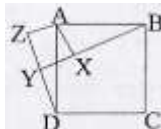
    In above figure, X is a point in the interior of square ABCD. AXYZ is also a square. IF DY = 3cm, AZ = 2 cm then length of BY is

    (A) 5 cm   (B) 6 cm   (C) 7 cm   (D) 8 cm

104. If every side of a triangle is increased 3/2 times of its original length, then the percentage increase in the area of the triangle is

    (A) 125%   (B) 150%   (C) 300%   (D) 50%

105. If one angle of a rhombus is 60°, then the ratio of the lengths of its diagonals is

    (A) $\sqrt{6} : 1$ (B) 2:1   (C) 2: 3   (D) $\sqrt{3} : 1$

106. In a right angle triangle, the sides of the right angle are of lengths 16 cm and 8 cm, then the side of the largest square that can be inscribed in the triangle is

(A) $\dfrac{16}{3}$ (B) $8\sqrt{3}$ cm   (C) $8\sqrt{5}$ cm   (D) 8 cm

107. If a, b, c, d are the sides of a right angle triangle, where c is the hypotenuse, then the radius 'r' of the incircle of this triangle is

(A) $r = \dfrac{a+b+c}{2}$ (B) $r = \dfrac{a-b+c}{2}$ (C) $r = \dfrac{a+b-c}{2}$ (D) $r = \dfrac{a-b-c}{2}$

108. A person wrote 15 numbers on a circle. Each number was the arthimetic mean of its two neighbours. If one of these numbers was 6, then the sum of all the numbers written on the circle is

(A) 120   (B) 189   (C) 100   (D) 90

109.

In above figure, diagonals of a cyclic quadrilateral ABCD intersect at point P. Area of triangle APB is $24\,cm^2$. If AB = 8 cm and CD = 5 cm, calculate the area of $\triangle DPC$

(A) $20\,cm^2$ (B) $12\ cm^2$ (C) $9\dfrac{3}{8}\,cm^2$ (D) $9.5\ cm^2$

110. Two dice are tossed. The probability that the total score is a prime number is

(A) $\dfrac{1}{6}$ (B) $\dfrac{5}{12}$ (C) $\dfrac{1}{2}$ (D) $\dfrac{7}{9}$

History

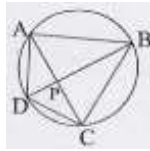111. The act of Union between England and _____ resulted in the formation of the United Kingdom of the Great Britain.
(A) Northern Ireland   (B) Wales   (C) Scotland   (D) Jersey

112. Who led the Scholar's Revolt?
(A) Pham Boi Chau   (B) Phan Chu Trinh
(C) The official at the imperial court   (D) The people of Mekong Delta

113. The Poona Pact was signed between _____ & _____.
(A) Mahatma Gandhi _____ Motilal Nehru
(B) Mahatma Gandhi _____ Lord Irwin
(C) Mahatma Gandhi _____ B.R. Ambedkar
(D) Mahatma Gandhi _____ Mount batten

114. The oldest Japanese book Diamod Sutra was printed in
(A) AD 686   (B) AD 868   (C) AD 668   (D) AD 866

115. How many years did it take to form Republic of Vietnam?
(A) 30   (B) 29   (C) 19   (D) 25

116. Consider the following events of 1919 A.D.
    1. Rowlatt Act   2. Hunter Report   3. Jallianwala Bagh Massacre
    4. Return of Knighthood by Rabindranath Tagore
    Their correct sequence is
    (A) A, B, C, D   (B) A, C, D, B   (C) B, A, C, D   (D) C, A, B, D

117. What was the aim of temperature movement?
    (A) Decrease unemployment   (B) Introduce Rent control
    (C) To stop criminal activities
    (D) To reduce the consumption of alcoholic drinks

118. Which French artist prepared a series of four prints visualizing his dream of a world made up of 'Democratic and Social Republics'?
    (A) Frederic Sorrieu   (B) Andreas Rebmann
    (C) Karl Kaspar Fritz   (D) Giuseppe Mazzini

119. By the 18th century, which of the following commodities were produced on large plantations in America by slave labour and exported to other countries?
    (A) Grains such as wheat and barley
    (B) Tropical fruits such as bananas and oranges.
    (C) Animal products such as wool and beef.
    (D) Cash crops such as sugar and cotton.

120. By which treaty Clive secured and Diwani of Bengal, Bihar and Orissa?
    (A) Treaty of Plassey   (B) Treaty of Allahabad
    (C) Treaty of Bengal   (D) Treaty of Baskar

121. Who is the author of Jane Eyre?
    (A) Jane Austen   (B) Charlotte Bronte
    (C) William Hogarta   (D) Samuel Richardson

Geography

122. Which of the following is correct about the Konkan coastal plain?
    (A) Stretches from Mumbai to Goa.
    (B) Stretches from Daman to Goa.
    (C) Stretches from Goa to Mangalore
    (D) Stretches from Mangalore to Kanya Kumari

123. Ravi, Jehlum and Chenab are the distributaries of which river?
    (A) Ganga   (B) Brahamputra   (C) Indus   (D) Godavari

124. Which state of India has more percentage of area under forest?
    (A) Haryana   (B) Punjab   (C) West Bengal   (D) Tripura

125. Which of the following is not a part of SAARC (South Asian Association for Regional Cooperation)
    (A) India   (B) Nepal   (C) Bangla Desh   (D) China

126. IN which category does the Kailash mountain range fall in?
    (A) Block Mountain   (B) Folded Mountain   (C) Doem Mountain   (D) Relict Mountain

127. What is the other name of Mangroves?
(A) Mountainous Vegetation   (B) Dry Vegetation
(C) Monsoonal Vegetation   (D) Littoral Vegetation

128. Sindri is famous for
(A) Fertilizer Industry   (B) Paper Industry
(C) Silk Industry   (D) Cement Industry

129. Which soil is formed differently from the other three soils?
(A) Bhabar   (B) Bangar   (C) Regur   (D) Khadar

130. Parkland, Steppes, Pampas, Campos and Veld are kept in which of the following categories?
(A) Mountains   (B) Plateaus   (C) Deserts   (D) Grassland

131. Which of the following fact is correct for straight line drawn between Arunchal Pradesh and Rann of Kachchh?
(A) 3293 kilometers (B) 2933 kilometers (C) 2393 kilometers (D) 2923 kilometers

132. Which region normally experiences the convectional type of rainfall?
(A) Equatorial Region (B) North Polar Region (C) South Polar Region (D) Glaciated Region

Civics

133. How many duties are registered in 51st article of Indian Constitution by 42nd amendment?
(A) 10   (B) 6   (C) 12   (D) 11

134. The President cannot proclaim General Emergency without directive from..............
(A) The Attorney General   (B) The Cabinet
(C) The Chief Justice of Supreme Court.   (D) The Chief Election Commissioner.

135. Provision of President's Emergency powers is taken from the constitution of ....
(A) South Africa   (B) Ireland   (C) Germany   (D) Australia

136. Who decides whether a particular Bill is Money Bill or an Ordinary one
(A) The President   (B) The Finance Minister
(C) The Speaker of Lok Sabha   (D) The Prime Minister

137. Match the following:

A.	West Bengal	1.	United Democratic Party
B.	Uttar Pradesh	2.	Muslim League
C.	Meghalaya	3.	Rashtriya Lok Dal
D.	Kerala	4.	Forward Block

138. Amendment Act of 2003 limits the size of the ministry to ....
(A) 15% of the length of the legislative Assembly.
(B) 16% of the length of the legislative Assembly.
(C) 17% of the length of the legislative Assembly.
(D) 18% of the length of the legislative Assembly.

139. Which statement is True: -
    (A) Union list has 47 subjects, State list has 97 subjects, concurrent list has 66 subjects.
    (B) Union list has 66 subjects, State list has 47 subjects, concurrent list has 97 subjects.
    (C) Union list has 97 subjects, State list has 66 subjects, concurrent list has 47 subjects.
    (D) Union list has 47 subjects, State list has 66 subjects, concurrent list has 97 subjects.

140. Who cannot participate in the electoral process of Vice President?
    (A) Elected members of Lok Sabha.
    (B) Elected members of Rajya Sabha.
    (C) Elected members of Legislative Assembly.
    (D) Nominated members of Lok Sabha & Rajya Sabha.

141. There are _____ members elected for Parliament from Punjab.
    (A) 13   (B) 14   (C) 10   (D) 15

142. Naturalised Citizenship cannot be acquired by
    (A) Long stay   (B) Adoption   (C) Jus-Sanguinis   (D) Conquest

Economics

143. What is marginal propensity to save (M.P.S.)
    (A) $\dfrac{\Delta Y}{\Delta C}$ (B) $\dfrac{\Delta S}{\Delta Y}$ (C) $\dfrac{\Delta Y}{\Delta S}$ (D) $\dfrac{\Delta C}{\Delta Y}$

144. Workers in the ……… sector do not produce physical goods.
    (A) Primary Sector (B) Secondary sector (C) Tertiary Sector (D) Final Sector

145. To grow more than one crop on a piece of land during a year is known as
    (A) Kharif crop (B) Multiple Cropping (C) Rabi Crop (D) Good Crop

146. Who is the chairman of the Planning Commission
    (A) N.S.S.O   (B) Chief-Minister   (C) President   (D) Prime Minister

147. Factors of production and their Price is given below
    I. Land ------- Wages   II. Capital ------ Rent
    III. Labour ------ Interest   IV. Entrepreneur ------- Profit
    Which matching is wrong?
    (A) I, II, IV   (B) II, III, IV   (C) I, II, III   (D) II, III, IV

148. From the following groups which has all the economics activities
    (A) Production, Consumption, Social Service, Distribution.
    (B) Production, Consumption, Exchange, Distribution.
    (C) Production, Consumption, Exchange, Social Service.
    (D) Consumption, Exchange, Distribution, Social Service.

149. On the basis of ownership types if economy are
    (A) Capitalistic, Socialistic, Developed-Economy.
    (B) Socialistic, Mixed, Developed-Economy.
    (C) Capitalistic, Socialistic, Mixed-Economy.
    (D) Mixed, Developed, Developing-Economy

150. In India who directly controls the "Monetary Policy"?
(A) Finance Department of India
(B) Reserve Bank of India
(C) State Bank of India
(D) Prime Minister of India

LANGUAGE TEST
English

Directions (Q.151-155): Read the comprehension passage and answer the following questions:

At this stage of civilization, when many nations are brought in to close and vital contact for good and evil, it is essential, as never before, that their gross ignorance of one another should be diminished, that they should begin to understand a little of one another's historical experience and resulting mentality. It is the fault of the English to expect the people of other countries to react as they do, to political and international situations. Our genuine goodwill and good intentions are often brought to nothing, because we expect other people to be like us. This would be corrected if we knew the history, not necessarily in detail but in broad outlines, of the social and political conditions which have given to each nation its present character.

151. According to the author 'Mentality' of a nation is mainly product of its……
(A) Present character (B) International position (C) Politics (D) History

152. The character of a nation is the result of its…
(A) Gross ignorance (B) Cultural heritage (C) Socio-political conditions (D) Mentality

153. The need for a greater understanding between nations…
(A) Is more today than ever before
(B) Was always there
(C) Is no longer there
(D) Will always be there

154. Englishmen like others to react to political situations like….
(A) Others   (B) Us
(C) Themselves   (D) Each other

155. According to the author his countrymen should…
(A) Read the story of other nations
(B) Not react to other actions
(C) Have a better understanding of other nations
(D) Have vital contacts with other nations

Directions (Q.156-162): Read the comprehension passage and answer the following questions:

Marie curie was one of the most accomplished scientists in history. Together with her husband, Pierre, she discovered radium, and element widely used for treating cancer, and studied uranium and other radioactive substances. Pierre and Marie's amicable collaboration later helped to unlock the secrets of the atom.

Marie was born in 1867 in Warsaw, Poland, where her father was a professor of Physics. At an early age, she displayed a brilliant mind and blithe personality. Her great exuberance for learning prompted her to continue with her studies after high school. She became disgruntled, however, when she learned that the university in Warsaw was closed to women, Determined to receive a higher education, she defiantly left Poland and in 1891 entered the Sorbonne, a French university, where she earned her master's degree and doctorate in Physics.

Marie was fortunate to have studies at the Sorbonne with some of the greatest scientists of her day, one of whom was Pierre Curie. Marie and Pierre were married in 1895 and spent many productive years working together in the physics laboratory. A short time after they discovered radium, Pierre was killed by horse drawn wagon in 1906. Marie was stunned by this horrible misfortune and endured heartbreaking anguish. Despondently she recalled their close relationship and joy that they had shared in scientific research. The fact that she had two young daughters to raise by herself greatly increased her distress.

Curie's feeling of desolation finally began to fade when she was asked to succeed her husband as a Physics professor at the Surbonne. She was the first woman to be given Professorship at the world famous university. In 1911 she received the Noble prize in chemistry for isolating radium. Although Marie Curie eventually suffered a fatal illness from her long exposure to radium, she never become disillusioned about her work, Regardless of the consequence, she had dedicated herself to science and to reveling the mysteries of the physical world.

156.   The Curies _____ collaboration helped to unlock the secrets of the atoms.
        (A) Friendly (B) Competitive (C) Courteous (D) Industrious

157.   Marie had a bright mind and a _____ personality.
        (A) Strong (B) Lighthearted (C) humorous (D) Strange

158.   When she learned that she could not attend the university in Warsaw, she felt _____
        (A) Hopeless (B) Annoyed (C) Depressed (D) Worried

159.   Marie _____ by leaving Poland and traveling to France to enter the Sorbonne.
        (A) Challenged authority (B) Showed intelligence (C) Behaved (D) Was distressed

160.   _____ she remembered their joy together.
        (A) Dejectedly (B) Worried (C) Tearfully (D) Happily

161. Her _____ began to fade when she returned to the Sorbonne o succeed her husband.
    (A) Misfortune   (B) Anger
    (C) Wretchedness   (D) Disappointment
162. Even though she became fatally ill from working with radium, Marie Curie was never

    _____
    (A) Troubled   (B) Worried
    (C) Disappointed   (D) Disturbed

Directions (Q.163-167): Read the comprehension passage and answer the following questions:

Waste management are a set of activities that include collection, transportation, treatment and disposal of waste material. There are four methods of managing waste. The first one is Recycling which means turning waste into new material but some argue that collecting, processing and converting waste uses more energy than land filling. The second method Land filling is compacting garbage and burning it in a hole. Large levers are placed in the bottom of landfills to avoid toxic garbage juice to go into ground water but these levers always don't work. Composting, the third method is piling up of organic matter and decomposing it to make the soil rich but plastic garbage makes it hard to compost on a large scale. The last method Incinerate waste can be done either by creating or harvesting a fuel and burning it or by burning the waste directly. Unfortunately burning garbage pollutes the air.

163. What is the main purpose behind the author's writing this?
    (A) To convince the readers to recycle and compost
    (B) To persuade readers that recycling is a waste of resources.
    (C) To compare and contrast recycling and land filling.
    (D) To inform readers of methods of waste management.
164. Why composting is not feasible on a large scale?
    (A) People wouldn't want to touch all of that gross rotting food.
    (B) It would smell too bad in densely populated cities
    (C) It would attract rodents that would spread disease
    (D) Plastic would get into the compost and turn it into a pollutant
165. What of the following expresses the best meaning of the word 'compacted'?
    (A) Garbage is burned before it is thrown in a hole
    (B) Garbage is put in trucks before it is thrown in a hole
    (C) Garbage is crushed before it is thrown in a hole
    (D) Garbage is put in a can before it is thrown in a hole
166. What expresses the main idea in the second paragraph?
    (A) Land fills take up a lot of space.
    (B) Composting is good for the soil but it can be hard to do
    (C) The process of composting is very complicated and scientific.
    (D) There is lot of plastic garbage in landfills

167. Which conclusion could be best supported with text from the passage?
(A) Each method of waste management has its draw backs.
(B) Recycling is without a doubt the best way to handle waste.
(C) Incineration is the best way to process waste.
(D) All large cities should create massive compost piles.

Directions (Q.168-169): The following six sentences come from a paragraph. The first and the last sentences are given. Choose the order in which the four sentences (PQRS) should appear to complete the paragraph.

168. S1: In 1945, America faced two powerful enemies in the world war.
S2: ……………………………….
S3: ……………………………….
S4: ………………………………..
S5: ……………………………….
S6: ………………………………..
S6: This was the weapon that ended the second World War.
P: America found conventional weapons insufficient to crush them.
Q: These were Germany and Japan who posed strong opposition to America.
R: The result of this was the production of the atom bomb.
S: The government ordered the scientists to conduct research and produce a new deadly weapon.
The proper sequence should be
1. QPRS   2. QPSR   3. PQRS   4. PQSR

169. S1: We are what our thoughts have made us.
S2: ………………………………..
S3: ………………………………..
S4: ……………………………….
S5: ………………………………..
S6: ……………………………….
S6: If good impressions prevail, the character becomes good, if bad it becomes bad.
P: And so take care of what you think.
Q: Every man's character is determined by the sum total of these impressions.
R: Every work we do, every thought that we think, leaves an impression on the mind-stuff.
S: Thought lives, they travel far.
The proper sequence should be
1. SPRQ   2. RQSP   3. PRSQ   4. RQPS

Directions (Q.170-171): The following questions have the second sentence missing. Choose the appropriate sentence from the given options to complete it.

170.   A smoke oozed up between the planks.
        B --
        C Everyone now knew there was fire in board.
        (A) People stayed wherever they were to enjoy the scene.
        (B) Flames broke out here and there.
        (C) People were ready to go for sky diving.
        (D) It was a mesmerizing site.

171.   A- When a satellite is launched, the rocket begins by going slowly upwards through the air.
        B ---------------------------------------
        C However the higher it goes, the less air it meets.
        (A) As a result there is less friction.
        (B) Consequently, the rocket does not become too hot.
        (C) As a result the atmosphere become thinner.
        (D) As the rocket goes higher, it travels faster.

Directions (Q.172-180): Choose the word which best fills the blank from the four options given below.

172.   The terrorists were arrested for their ------------   activities
        (A) Subservient   (B) Subordinate
        (C) Subsidiary   (D) Subversive

173.   The role of Zoo is preserve --------- animals.
        (A) Extinct   (B) Common
        (C) Rare   (D) Dead

174.   The manner in which bombs exploded in five trains within a short span of time suggested that it was part of a ----------
        (A) Game   (B) Villainy
        (C) Conspiracy   (D) Sabotage

175.   The non-cooperative attitude of the members can only ------ the image of the society.
        (A) Improve   (B) Degrade
        (C) Defame   (D) Spoil

176.   The volcanic --------- was cause of great devastation.
        (A) Outburst   (B) Eruption
        (C) Erosion   (D) Movement

177.   ----------- Eye-witness, the news reporter gave a graphic description of how fire broke out.

        (A) Reporting (B) Observing (C) Seeing (D) Quoting

178. Diseases are ------ through contact with infected animals.
    (A) Transmitted (B) Transported (C) Transferred (D)
    Transplanted

179. The Prime Minister --------- the states that the unrevised policy was not meant to infringe upon their rights.
    (A) Assured   (B) Declared
    (C) Attributed   (D) Suggested

180. He ------- friends has come back.
    (A) And his   (B) Along with his
    (C) or his   (D) along with them

Directions (Q.181-182): Choose the appropriate phrasal verb to complete the sentences.

181. Has the advertising agency ------- the new promotional material yet?
    (A) Dropped off (B) Dropped in (C) Dropped out (D)
    Dropped by

182. We have decided to ---------- billboards and use more double page spreads instead.
    (A) Back off (B) Come down with (C) Cut back on (D) Drop off

Directions (Q.183-184): In the following passage there are some numbered blanks. Fill in the blanks by selecting the most appropriate word for each blanks from the given options:

Jamshedji Tata is ----- 183 ------ to be the path-finder of modern industrial builders. He is known as the grandfather of the Indian industry for his acumen and enthusiasm. Nobody else could have ------ 184 ----- of the new industries started by Jamshedji at that time when industrial ------ 185 ---- and revolution was yet to come to India. Jamshedji's father Nasarvanji Tata used to trade in jute with China and Britain. He started ----- 186 -----from India. Jamshedji started a cloth mill in Nagpur more than hundred years ago. At that time almost all the ----- 187 ------used to come from Lancashire in England. What Jamshedji ----- 188 ----- was praiseworthy.

183.	(A) Reward	(B) Agreed	(C) Empowered	(D) Considered
184.	(A) Absolved	(B) Thought	(C) Ventured	(D) Set
185.	(A) Imports	(B) Acts	(C) Machinery	(D) Awakening
186.	(A) Export	(B) Industries	(C) Import	(D) Trade
187.	(A) Goods	(B) Imports	(C) Cloth	(D) Machines
188.	(A) Did	(B) Dreamt	(C) Agreed	(D) Told

Directions (Q.189-195): Select the meaning of given phrases/idioms from the given options.

189. Real friends never leave us alone in close quarters.
    (A) Close examination (B) Live near to each other (C) Live far to each
    other (D) In love

190. One the eve of inspection everything was kept in apple pie order.

    (A) In random order (B) Related to fruits packing (C) Related to dry fruits packing. (D) In perfect order.

191. To have passed with 'flying colours'

    (A) Has excelled in art (B) Has got mediocre grades (C) Has just scraped through (D) Has done very well

192. Reenu is very popular for her above board conduct.

    (A) Boasting person (B) Honest and straight forward (C) A man with arrogance (D) A dishonest person

193. Once in blue moon, we meet each other.
    (A) Frequently   (B) Hardly ever
    (C) Very seldom indeed   (D) In the light of a blue moon.

194. The officer took him to task.
    (A) Promoted him   (B) Rebuked him
    (C) Dismissed him   (D) Praised him

195. Why do you wish to tread on the toes?
    (A) To give offence to them
    (B) To follow them grudging
    (C) To treat them indifferently
    (D) TO be kicked by them

Directions (Q.196-197): Choose the correct antonyms for the underlined words.

196. I want to pursue my studies

    (A) Prolong (B) Discontinue (C) Continue (D) Discomfort

197. The student's constant and diligent efforts brought him great success.

    (A) Lucky (B) Constant (C) Lazy (D) Slow

Directions (Q.198-200): Choose the correct synonyms for the underlines words.

198. He changed his statement so many times that his entire message became ambiguous.
    (A) Clear   (B) Impressive   (C) Unimpressive   (D) Unclear

199. Don't live under the fallacy that luck will for everything for you.
    (A) Wrong belief   (B) Weakness   (C) Pleasure   (D) Right belief

200. Quarrelling people created a lot of cacophony as so nobody was able to hear us.
    (A) Bitterness   (B) Noise   (C) Hearing   (D) Fighting

National Talent Search Examination – 2015

State Level Test – 2015
Class – X
MENTAL ABILITY AND SCHOLASTIC APTITUDE TEST

MENTAL ABILITY

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

SCHOLASTIC APTITUDE TEST
PHYSICS

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

CHEMISTRY

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

BIOLOGY

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

MATHEMATICS

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

HISTORY

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

GEOGRAPHY

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

CIVICS

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

ECONOMICS

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

LANGUAGE TEST
ENGLISH

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