INSTRUCTIONS TO CANDIDATES:
Read the following instructions before you answer the questions. Answers are to be given in a SEPARATE OMR ANSWER SHEET provided inside this booklet. Break the seal and start answering the questions once asked to do so.
1. Please write your Roll Number very clearly (only one digit in one block) as given in your Admission Card.
2. You have to answer 100 questions in this test.
3. Select the most suitable answer for each question and completely darken the circle corresponding to the correct alternative as shown below.

Correct Method
1 2 ● 4

Wrong Method
1 2 3 ⬜

4. All questions carry ONE MARK each.
5. There is no negative mark. Every correct answer will be awarded one mark.
6. Do not write your name on any part of the question booklet or the answer sheet.
7. Rough Work can be done in the space provided at the end of this booklet.

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Class – X

There are 100 questions in all. For each question four alternative answers are given marked as (1), (2), (3), (4). From these, find the most appropriate answer. The number denoting this answer is there in the answer sheet against the question number concerned. Darken the circle with Blue/Black Ball Pen only. Record the answers thus in the OMR answer sheet only. Do not write anything in the question booklet except your Roll Number on the cover page and rough work in the space provided for the purpose.

Directions (1 – 5): In each of the following letter series, some of the letters are missing. Find the missing letters in proper sequence from the four alternatives given.

1. A_AABB_BBB_BBB
   (1) BBBB (2) AABB
   (3) BBAA (4) ABAB

2. _prq_p_rqr_pr_r
   (1) ppppr (2) prrqp
   (3) prrrq (4) prppq

3. accb_a_c_ba_bc
   (1) abaca (2) babca
   (3) abbab (4) aabbc

4. nm_mm_nm_mm_mnm
   (1) mnnmn (2) mmnmn
   (3) mnmmnm (4) nmnmn

1. A_A_AABB_BBB_BBB
   (1) BBBB (2) AABB
   (3) BBAA (4) ABAB

2. _prq_p_rqr_pr_r
   (1) ppppr (2) prrqp
   (3) prrrq (4) prppq

3. accb_a_c_ba_bc
   (1) abaca (2) babca
   (3) abbab (4) aabbc

4. nm_mm_nm_mm_mnm
   (1) mnnmn (2) mmnmn
   (3) mnmmnm (4) nmnmn
5. In a certain code language the word NUMERICAL is written as LMUIREACN. How will the word FACTORISE be written?
   (1) EROCATISF
   (2) ECAROTSF
   (3) EACRITOSF
   (4) ESOCRAITF

6. Which of the following will get, when the word ‘LABOUR’ is written again by substituting each vowel with the third letter following it in the English alphabet and substituting each consonant with the immediate vowel following it?
   (1) OLERWU
   (2) UDESWU
   (3) NEESXU
   (4) ODERXU

Directions (7 – 8) : In a certain coding system “hafcb” means “the white cat frightened the mouse”
“fdhea” means “the frightened mouse ran away”
“gfba” means “the mouse was white”
“cda” means “the cat ran”

7. What is the code for “the cat was frightened”? 
   (1) hafbc
   (2) hgca
   (3) edch
   (4) hafc

8. “the cat was frightened” in this code is “hafbc”?”
   (1) hafbc
   (2) hgca
   (3) edch
   (4) hafc
8. What is the code for "away"?
   (1) e
   (2) d
   (3) f
   (4) h

9. Some words with jumbled letters are given below. Find the word which does not suit the group.
   (1) EUOBLS
   (2) KRTIS
   (3) REATEWS
   (4) HSIRT

10. Which of the following words cannot be formed from the letters of the word 'PERPENDICULAR'?
    (1) PENCIL
    (2) INDEPENDENCE
    (3) ERADICATE
    (4) CIRCULAR

Directions (11 - 14): Which of the following numbers should occupy the position of '?'

11.  

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   (1) 25
   (2) 14
   (3) 27
   (4) 9

12. Which of the following words is the odd one out?
    (1) EUOBLS
    (2) KRTIS
    (3) REATEWS
    (4) HSIRT

13. Which of the following cannot be formed from the letters of the word 'PERPENDICULAR'?
    (1) PENCIL
    (2) INDEPENDENCE
    (3) ERADICATE
    (4) CIRCULAR

14. Which of the following numbers should occupy the position of '?'

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   (1) 25
   (2) 14
   (3) 27
   (4) 9
12. (1) 4  
(2) 1  
(3) 3  
(4) 5  

13. (1) 189  
(2) 179  
(3) 159  
(4) 229  

14. If \(42 \times 7 + 5 = 300\), \(5 + 63 \times 9 = 35\) then \(56 \times 8 + 4 = ?\)  
(1) 28  
(2) 44  
(3) 36  
(4) 42  

Directions (15 - 17) : In each of the four groups of letters, one is different from the others. Find the odd one.  
15. (1) ABTU  
(2) RQST  
(3) IJSO  
(4) YXEF  

16. (1) AKU  
(2) CMW  
(3) DIS  
(4) EOY
17. (1) VWUZ (2) EHFG (3) ADBC (4) PNOM

18. Find the odd one
(1) 368047 (2) 640837 (3) 809467 (4) 304867

19. In a certain code language 63728 is written as 56483. Which number is represented by the code 34342?
(1) 45187 (2) 42617 (3) 41312 (4) 45528

Directions (20 – 22): There is a relationship between the two terms to the left of : : Find the pair for : ? from the four alternatives which holds the same relationship.

20. Writer : Book : : ?
(1) Poem : Poet
(2) Building : Architect
(3) Composer : Song
(4) Chair : Carpenter

21. Scales : Fish : : ?
(1) Trees : Leaves
(2) Skin : Man
(3) Bird : Feather
(4) Lady : Dress

(1) Cloth : Dresses
(2) Brush : Paint
(3) Ink : Colour
(4) Brick : Clay

17. (1) VWUZ (2) EHFG (3) ADBC (4) PNOM

18. സൂചനകളിൽ കാണേണ്ട ചോദ്യ?
(1) 368047 (2) 640837 (3) 809467 (4) 304867

19. എന്ന് (പരാമര്ശിച്ച കൂട്ടാഴ്ചകളിൽ 63728
gതാനത്തിൽ 56483 
(2) 34342 
(1) 45187 (2) 42617 (3) 41312 (4) 45528

ഗവര്‍ത്തകും അനുജനകളില്‍ പ്രവര്‍ത്തിക്കുന്ന: പെരുവന്റെ തുറന്നാഴ്ച പ്രാപ്തമില്ലാത്ത പെരുത്താഴ്ച. എന്ന് എല്ലാ പ്രവര്‍ത്തിക്കുന്ന സൂചനായിരുന്നു
(4) ഐറ്റ്: ഇഡ്

20. തെയ്യമാലക്കാരി: പുഷ്‌തസ്വരത: ?
(1) ജീവി: അലിഗ്
(2) കുന്ന് പി: വള്ളം
(3) പെരുത്താഴ്ച: മുഹൂൻ
(4) വെ‌ണ്ണം: വച്ചി

21. മനുഷ്യൻ: സ്ഥല: : ?
(1) പെരുന്തമര: പെരുന്തമര
g(2) കുളി: കുളി
(3) എല്ലാളി: ഇഡ്
(4) ഇഡ്: ഇഡ്

22. കല്ല്: കാരി: : ?
(1) ഗുണാതി: ഗുണാതി
(2) കുളി: ഇഡ്
(3) ഗുണാതി: ഗുണാതി
(4) ഇഡ്: ഇഡ്
Class – X

Directions (23 – 26) : Which term will replace the question mark (?) in the given series?

23. 93, 100, 114, 135, 163, ?
   (1) 198 (2) 195
   (3) 196 (4) 192

24. 12, 13, 17, 26, 42, 67, ?
   (1) 101 (2) 103
   (3) 97  (4) 107

25. TM7, YP42, CT79, ?
   (1) EW112 (2) DX110
   (3) FY118 (4) BY113

26. M2B, Q3E, T7G, X13J, ?
   (1) B21M (2) A27L
   (3) D18K (4) Y20K

Directions (27 – 29) : Find the number which does not fit in the group.

27. 7, 13, 18, 24, 29, 36, 40
   (1) 18  (2) 24
   (3) 36  (4) 40

28. 35, 37, 41, 47, 65, 97
   (1) 35  (2) 47
   (3) 55  (4) 37

29. 3, 4, 7, 9, 14, 19, 21, 39
   (1) 7   (2) 14
   (3) 19  (4) 21
Class – X

Directions (30 – 31): In each of the following questions insert the right sign to get the required results.

30. \(18 \div 3 \times 6 \div 5 = 36\)
   
   (1) \(-, +, \times\)
   (2) \(\div, +, \times\)
   (3) \(\div, \times, +\)
   (4) \(-, \times, +\)

31. \(13 \div 4 \div 2 \div 7 = 12\)
   
   (1) \(+, -, \div\)
   (2) \(-, \times, +\)
   (3) \(+, \times, -\)
   (4) \(+, \times, \div\)

32. Find the number suitable for ‘?’ if the two numbers on the left of ‘:’ obey a certain relation in \(5 : 50 : : ? : 162\)
   
   (1) 9
   (2) 8
   (3) 11
   (4) 7

33. The independence day of India was celebrated on Friday in 2014. On which day will it be celebrated in 2022?

   (1) Wednesday
   (2) Monday
   (3) Friday
   (4) Saturday
34. Prakash starts walking towards the south. After walking 20 metres, he turns towards the north. After walking 25 metres, he turns towards the east and walks 15 metres. He then turns south and walks 5 metres. How far is he from his original position and in which direction?

(1) 15 metres North, East
(2) 15 metres South, East
(3) 15 metres, East
(4) 15 metres, West

35. Find the order in which the following words are arranged in a dictionary?
   a) transplant
   b) translate
   c) transmission
   d) transform
   e) transistor

(1) dbeca
(2) debca
(3) ebdca
(4) cdeba

36. How many such pairs of letters are there in the word COMPUTERS which have as many letters between them as in the English alphabet?

(1) 6
(2) 4
(3) 5
(4) 3
37. Ajay borrowed Rs. 200 from Ganesh. Sanju borrowed Rs. 100 from Ajay and gave Rs. 50 to Ganesh. Rs. 350 was stolen from Ganesh and he was left with no money. How much money did Ganesh have initially?

1. 450  
2. 300  
3. 500  
4. 250

38. In a group of people, 50% people read newspaper A and 1/5 of the rest read newspaper other than B. Which figure out of the following will best depict the people who read newspaper B?

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

39. A - B means B is the son of A, A × B means A is the brother of B, A ÷ B means B is the sister of A and A + B means A is the mother of B. Which of the following is definitely TRUE about R × S - Q ÷ P?

1. S is the mother of P and Q  
2. P is the daughter of S and is the niece of R  
3. Q is the uncle of S's brother R  
4. S is the father of Q and P
40. Kiran and Sanju practice swimming. Kiran practises in the morning and noon on the alternate day starting from Monday. Sanju practises in the morning on Tuesday and Thursday and in the noon on Saturday and Sunday. On how many days in a particular month of 30 days starting on Tuesday, Kiran and Sanju would meet each other?

(1) 2
(2) 4
(3) 5
(4) None of these

41. In a row of girls Shoba and Geetha occupy 9th place from the right end and 10th place from the left end respectively. If they interchange their places, Shoba and Geetha occupy 17th place from the right and 18th place from the left respectively. How many girls are there in the row?

(1) 26
(2) 25
(3) 27
(4) 28
43. A paper of rectangular shape is cut into two halves. The two pieces are put together one above the other and again cut into halves. How many pieces will be there after 9 cuttings?

(1) 256  (2) 512  (3) 1024  (4) 2048

44. When Amit was born his father was 29 years older than his brother and his mother was 22 years older than him and his mother is 4 years younger than his father. If Amit’s brother is 5 years older than his sister, how old was Amit’s sister when he was born?

(1) 10  (2) 7  (3) 9  (4) 8

45. A student got thrice as many sums right as he got wrong. He got three marks for each correct answer and one mark for each correct answer. How many did he solve correctly?

R = 2x
x + 3x = 72
x = 18

Correct answers = 3x = 54
45. If the perimeter of a square and a rectangle is equal to 80 cms each and difference of their areas is 100 sq. cms, length of the sides of the rectangle are

1. 35 cm, 15 cm
2. 28 cm, 12 cm
3. 30 cm, 10 cm
4. 26 cm, 14 cm

46. 'Doctor' relates to 'Patient' in the same way as 'Lawyer' relates to

1. Accused
2. Magistrate
3. Customer
4. Client

47. In a certain code DARK is written as 11-5-39-25. How will the word NOSE be written in that language?

1. 31-33-41-13
2. 32-35-37-15
3. 28-30-38-10
4. 28-33-36-12

48. If 'book' is called 'newspaper', 'newspaper' is called 'dictionary', 'dictionary' is called 'directory', directory is called 'magazine', 'magazine' is called 'computer' which of the following is needed to find a telephone number?

1. directory
2. magazine
3. computer
4. dictionary
Class – X

Directions (49 – 50): In the question given below, there are 2 statements followed by 4 conclusions numbered I, II, III and IV. You have to decide which of the given conclusions logically follows from the given statement.

49. Statements:

All dancers are singers
No singer is an artist

Conclusions:

I. No dancer is an artist
II. All singers are artists
III. Some artists are singers
IV. Some singers are artists

(1) Only II follows
(2) Only IV follows
(3) Only I follows
(4) Only II and III follow

50. Statements:

All rats are cats
All cats are dogs

Conclusions:

I. Some dogs are rats
II. All rats are dogs
III. No cat is a dog
IV. Some dogs are cats

(1) Only III and IV follow
(2) Only IV follows
(3) Only II, III, IV follow
(4) Only I, II, IV follow

51. Find the mirror image of the word ‘GEJDPSNQ’

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

P.T.O.
Class – X

Directions (52 – 55): In a college, the Library is 300 m to the North of the office room. Maths Department is 300 m North of the Physics Department. Chemistry Department is 500 m East of the Physics Department. Lab is 200 m to the East of the office room and 400 m North of the Chemistry Department. English Department is 200 m North of the office room.

52. Which of the two places are the farthest?
   (1) Library and Physics Department
   (2) Library and Chemistry Department
   (3) English Department and Physics Department
   (4) Lab and Physics Department

53. Which places are in straight line?
   (1) Physics Department, Maths Department, Lab
   (2) Library, Maths Department, Chemistry Department
   (3) Library, English Department and Office
   (4) Office, Maths Department, Physics Department

54. What is the distance between the Library and the Maths Department?
   (1) 400 m   (2) 500 m
   (3) 350 m   (4) 200 m
55. In which direction is the Lab from the Maths Department?

(1) North-West
(2) South-West
(3) South-East
(4) North-East

Directions: (56-58) Questions are based on the following diagrams marked 1, 2, 3, and 4. Select the diagram that best represents the relationship among the items mentioned in the questions.

56. Female, Mothers, Doctors
57. Fruit, Flower, Apple
58. Dogs, Pets, Cats

Directions: (59-61) Questions are based on the following series:

59. What is the ratio between the numbers of numerals and symbols? If a number or symbol occurs more than once it has to be counted as one only.

(1) 7 : 6
(2) 7 : 9
(3) 8 : 2
(4) 4 : 3

55. പ്രകാശ്യമായ രാത്രിയിൽ പീഡിയോകഥയുടെ
ഡെൻഡു ഇളവുകളാണ്?

(1) പ്രകാശം - പീഡിയോ
(2) പ്രകാശം - കഥയുടെ
(3) പ്രകാശം - ഇളവുകൾ
(4) പ്രകാശം - ഇളവുകൾ

56. പെൺരാത്രി, മാതാറാത്രി, ഡോക്ടർ
57. ഫ്രൂട്ട്, ഫ്ലൂവർ, എപ്പിൾ
58. ഡോഗ്സ്, പെട്സ്, കാട്ടു്

59. ലിപികളുടെ സംഖ്യയും ചിഹ്നങ്ങളുടെ
ബന്ധത്തിലെ ശതക്കന്ദിയാണ്?

(1) 7 : 6
(2) 7 : 9
(3) 8 : 2
(4) 4 : 3
Class – X

60. How many letters have a symbol either on their left or on their right?
   (1) 5
   (2) 7
   (3) 8
   (4) 3

61. How many letters have numbers on their left and right which when added together make a total of 10?
   (1) 3
   (2) 2
   (3) 4
   (4) 1

62. The positions of A, B and C in a circular playground are as shown in the figure. They run along the circle in clockwise direction and stop after covering \( \frac{3}{4} \) of the perimeter of circle. Now which of the following statement is true?

   (1) B is to the South-West of C
   (2) B is to the South-East of A
   (3) A is to the East of B
   (4) B is to the North-East of A
Class – X

Directions : (63-64) : Study the following figure carefully and answer the questions.

63. How many triangles are there in the figure ?
   (1) 14  
   (2) 10  
   (3) 8  
   (4) 12

64. How many pentagons are there ?
   (1) 5  
   (2) 12  
   (3) 10  
   (4) 8

63. മൂന്ന് ത്രികോണം ഉണ്ടോ എന്നോ ? 
   (1) 14  
   (2) 10  
   (3) 8  
   (4) 12

64. പിന്തുണയും കണ്ടോ എന്നോ ? 
   (1) 5  
   (2) 12  
   (3) 10  
   (4) 8
Class – X

Directions: (65 – 66): Find the suitable figure for the place marked by ‘?’ if the sequence is continued.

65. Problem figures:

Answer figures:

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

66. Problem figures:

Answer figures:

(1) (2) (3) (4)
67. In the given question figure (X) is followed by four alternative figures 1, 2, 3, 4 such that figure (X) is embedded in one of them. Trace out the alternative figure which contains Figure (X).

68. The following figure (X) is folded into a cube. Find the correct form of the cube from the four alternatives.
Class – X

Directions (69 – 70) : In the question figure, figures A and B follow a definite relationship. Establish the same relationship between the figures C and D by selecting suitable figures from the answer figures.

69. Question figures :

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Answer figures :

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70. Question figures :

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Class – X

Directions (71-72) : Of the four figures given, three are similar in a certain manner. Choose the figure which is different.

71.
(1) (2) (3) (4)

72.
(1) (2) (3) (4)

73. In the following question, figure (X) is followed by four alternatives. Which of the figures fits into figure (X) to form a perfect square?

Figure X

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

Directions (74 – 76) : Read the following information and answer the questions based on them:

1. The length, breadth and height of a rectangular piece of wood are 3 cm, 4 cm, and 5 cm respectively.
2. Sides with measures 5 cm x 4 cm are coloured white.
3. Sides with measures 4 cm x 3 cm are coloured black.
4. Sides with measures 5 cm x 3 cm are uncoloured.

Now the piece is cut in such a way that cubes of 1 cm x 1 cm x 1 cm are made.
74. How many cubes are there with two sides coloured?

(1) 12
(2) 8
(3) 16
(4) 20

75. How many cubes are there with only one side coloured?

(1) 40
(2) 24
(3) 36
(4) 42

76. How many cubes will not have any colour?

(1) 8
(2) 10
(3) 12
(4) 16

**Directions (77 – 78):** In the given questions there exists some relationship between the terms to the left of the sign :: . Find the correct pair from the alternatives which holds the same relationship from the options given.

77. CFH : IRX :: ?

(1) ACD : CJL
(2) DEF : LOR
(3) GIK : MOQ
(4) DGI : LOR

78. CFH : IRX :: ?

(1) ACD : CJL
(2) DEF : LOR
(3) GIK : MOQ
(4) DGI : LOR
Class - X

78. BEGD : DONL : : ?
   (1) DFHI : HLJL
   (2) CFGJ : BKLN
   (3) CFID : FRRL
   (4) SRON : VSTN

79. In a class Ajay is 6th rank from the top and Vineeth is 18th from the bottom. Raju is 14 ranks below Ajay and 15 ranks above Vineeth. How many students are there in the class?
   (1) 52
   (2) 55
   (3) 53
   (4) 54

80. Find the set of numbers from the alternatives which is almost like the set (4, 9, 17).
   (1) (5, 9, 24)
   (2) (8, 17, 65)
   (3) (6, 12, 35)
   (4) (9, 19, 78)

81. Find the number of three digit even numbers that can be formed with the digits 3, 4, 7 and 8 if no digit is repeated.
   (1) 24
   (2) 12
   (3) 15
   (4) 16
82. Reena is 4 years older than Maya. Sunil is 4 years younger to Suja but \( \frac{1}{4} \) times as old as Reena. If Suja is 8 years old, find the age of Maya.

(1) 20  
(2) 18  
(3) \( \frac{1}{2} \)  
(4) 16

83. Prakash bought 100 oranges for Rs. 360 and he found that 10 are rotten. At what price should he sell an orange in order to get Rs. 90 as profit?

(1) 5.2  
(2) 5.4  
(3) 5.5  
(4) 5

84. What number should be subtracted from each of the numbers 23, 30, 57 and 78 so that the reminders are in proportion?

(1) 4  
(2) 3  
(3) 6  
(4) 7

85. The sum of six consecutive odd numbers is 540. Then the sum of the smallest and the largest number is

(1) 180  
(2) 168  
(3) 172  
(4) 196
Class - X

Directions (86-88): are based on the following sequence:

bbdddbbdbbbdbdbd

86. How many b's are preceded by d and followed by b?
   (1) 2    (2) 3
   (3) 4    (4) 1

87. How many b's are preceded and followed by b?
   (1) 3
   (2) 1
   (3) 2
   (4) None of these

88. How many b's are preceded by b and not followed by b?
   (1) 3
   (2) 2
   (3) 1
   (4) 4

89. Find the number of dots on the face opposite to the face with one dot.

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

MAT

গব্যেরণ: (86 – 88) প্রতিটি হাতে অ্যাল্লার্সে যার গব্যেরন কিছুটা বিলাপ কাজ করে? (a)

bbdddbbdbbbdbdbd

86. যুগুলিতে d যুগুলি বিলাপের মধ্যে b যুগুলি বিলাপের মূল করা হয়?
   (1) 2    (2) 3
   (3) 4    (4) 1

87. যুগুলিতে বিলাপের মধ্যে b যুগুলি বিলাপ করা হয় কিনা?
   (1) 3
   (2) 1
   (3) 2
   (4) None of these

88. যুগুলিতে b যুগুলি বিলাপের মধ্যে বিলাপ করা হয়?
   (1) 3
   (2) 2
   (3) 1
   (4) 4

89. মান অস্তিত্বের বলারিয়া অনুসারে বলারিয়া মূল কাজ করে বলারিয়া করা হয়?

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

P.T.O.
Class - X

90. In the question find out, which of the answer figure 1, 2, 3, 4 completes the figure matrix?

Problem figures:

Answer figures:

Directions (91-94): Find the correct figure from the answer figures if the problem figure continues in series.

91. Problem figures:

Answer figures:

(1)  (2)  (3)  (4)
92. Problem figures:

\[
\begin{array}{c|c|c|c|c|}
\times & + & = & S & + \\
+ & = & \times & = & + \\
S & = & + & + & S & \times & + \\
\end{array}
\]

Answer figures:

\[
\begin{array}{c|c|c|c|c|}
\times & + & = & = & + \\
S & = & + & + & S & \times & + \\
\end{array}
\]

93. Problem figures:

\[
\begin{array}{c|c|c|c|c|}
\bigcirc & \times & \square & \bigcirc & \bigcirc \\
\bigcirc & \times & \bigcirc & \bigcirc & \times \\
\bigcirc & \times & \bigcirc & \bigcirc & \times \\
\bigcirc & \times & \bigcirc & \bigcirc & \times \\
\end{array}
\]

Answer figures:

\[
\begin{array}{c|c|c|c|c|}
\bigcirc & \times & \bigcirc & \bigcirc & \times \\
\bigcirc & \times & \bigcirc & \bigcirc & \times \\
\bigcirc & \times & \bigcirc & \bigcirc & \times \\
\bigcirc & \times & \bigcirc & \bigcirc & \times \\
\end{array}
\]

94. Problem figures:

\[
\begin{array}{c|c|c|c|c|}
\rightarrow & \downarrow & \uparrow & \leftarrow & \rightarrow \\
\uparrow & \leftarrow & \uparrow & \rightarrow & \downarrow \\
\leftarrow & \rightarrow & \downarrow & \rightarrow & \downarrow \\
\leftarrow & \rightarrow & \downarrow & \rightarrow & \downarrow \\
\end{array}
\]

Answer figures:

\[
\begin{array}{c|c|c|c|c|}
\uparrow & \rightarrow & \leftarrow & \rightarrow & \rightarrow \\
\leftarrow & \rightarrow & \downarrow & \rightarrow & \downarrow \\
\leftarrow & \rightarrow & \downarrow & \rightarrow & \downarrow \\
\leftarrow & \rightarrow & \downarrow & \rightarrow & \downarrow \\
\end{array}
\]
Directions (95-99): In a class, students are practicing four games, Football, Tennis, Basketball, Cricket and this is represented in the following diagram. Study the diagram carefully and find the region represented for each question given below.

95. The letter denoting those students practicing all the four games.
   (1) j  (2) g  (3) h  (4) i

96. The letter denoting those students practicing tennis, cricket, football but not basketball.
   (1) m  (2) c  (3) e  (4) g

97. The letter denoting those students practicing football but not basketball or cricket.
   (1) k  (2) b  (3) m  (4) f
98. The letter denoting those students practicing only football and cricket.
   (1) m  (2) b
   (3) l  (4) c

99. Students practicing neither Basketball nor Tennis?
   (1) Union of region b, m, c
   (2) Union of region c, e, d
   (3) Union of region b, c
   (4) Union of region g, e, b

100. Directions: The following question consist of a set of three figures A, B, and C showing a sequence of folding a piece of paper. Figure (C) shows the manner in which the folded paper has been cut. These figures are followed by four answer figures from which you have to choose a figure which would resemble the unfolded form of figure (C).

Problem figures:

(A)  
(B)  
(C)  

Answer figures:

(1)  
(2)  
(3)  
(4)
NTSE - 2018
Class - X
Part - I
SCHOLASTIC APTITUDE TEST (SAT)

Time : 120 Minutes
Maximum Marks : 100

INSTRUCTIONS TO CANDIDATES:
Read the following instructions before you answer the
questions. Answers are to be given in a SEPARATE
OMR ANSWER SHEET provided inside this
booklet. Break the seal and start answering the
questions once asked to do so.

1. Please write your ROLL NUMBER very clearly
   (only one digit in one block) as given in your
   Admission Card.
2. There are 100 questions in this test. The
   questions are arranged in the following order:
   - Questions 1 to 40 belong to Science
     Subjects.
   - Questions 41 to 60 are on Mathematics
     Subjects.
   - Questions 61 to 100 are on Social
     Science.
3. Select the most suitable answer for each
   question and completely darken the circle
   corresponding to the correct alternative as
   shown below.

<table>
<thead>
<tr>
<th>Correct Method</th>
<th>Wrong Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  2  3  4</td>
<td>1  2  3  4</td>
</tr>
</tbody>
</table>
4. All questions carry ONE MARK each.
5. There is no negative mark. Every correct
   answer will be awarded one mark.
6. Do not write your name on any part of the
   question booklet or on the answer sheet.

The copyright of the contents of this booklet rests with the Institution and no part of it should be used
by anybody in any manner whatsoever without the prior permission of the Institution. The items are
prepared with best expertise. In case of any dispute the opinion of the experts appointed by Institution
will be final.
Class – X
There are 100 questions in all. For each question four alternative answers are given marked as (1), (2), (3), (4). From these, find the most appropriate answer. The number denoting this answer is there in the answer sheet against the question number concerned. Darken the circle with Blue/Black Ball Pen only. Record the answers thus in the OMR answer sheet only. Do not write anything in the question booklet except your Roll Number on the cover page and rough work in the space provided for the purpose.

1. A protein present in myofibril is
   (1) Tubulin
   (2) Actin
   (3) Keratin
   (4) Chondrin

2. The plant group that bear naked seeds is
   (1) Angiosperms
   (2) Pteridophyta
   (3) Bryophyta
   (4) Gymnosperms

3. Choose the correctly matched organism and its excretory organ.
   (1) Insects – Kidney
   (2) Earthworm – Nephridia
   (3) Frog – Skin
   (4) Amoeba – Malpighian tubules

P.T.O.
4. Choose the wrong statement about glycolysis.
   (1) Glucose is converted to carbon dioxide and water
   (2) Takes place in cytoplasm
   (3) Does not require oxygen
   (4) The first phase of cellular respiration

5. Which one of the following is a sexually transmitted disease?
   (1) Kala-azar
   (2) Syphilis
   (3) Sleeping sickness
   (4) Typhoid

6. Identify the macro nutrient obtained by plants from the soil.
   (1) Molybdenum
   (2) Zinc
   (3) Boron
   (4) Phosphorus

7. Fungal cell wall is made up of
   (1) Chitin
   (2) Peptidoglycan
   (3) Protein
   (4) Amino acid

8. The number of layers in meninges is
   (1) 2
   (2) 1
   (3) 4
   (4) 3
9. Delta cells in pancreas secrete
   (1) Glucagon
   (2) Somatostatin
   (3) Insulin
   (4) Pancreatic polypeptide

10. Quickwilt in pepper is caused by
    (1) Bacteria
    (2) Nematode
    (3) Virus
    (4) Fungus

11. The products of light reaction are
    (1) Oxygen, ATP, NADPH
    (2) ATP, CO₂, NADPH
    (3) CO₂, Oxygen, ATP
    (4) ADP, Oxygen, NADPH

12. An organ that has the capacity to regenerate its damaged cells is
    (1) Lungs
    (2) Heart
    (3) Liver
    (4) Kidney

13. A plant hormone known as stress hormone is
    (1) Gibberellin
    (2) Cytokinin
    (3) Auxin
    (4) Abscisic acid
14. Which one of the following is correct about vein?
   (1) Valves are present
   (2) Thick wall
   (3) Carries blood in high speed and high pressure
   (4) Carries blood from the heart

15. Which of the following is the correct electronic configuration of Gadolinium (Z = 64)?
   (1) [Xe] 4f⁹ 5s¹
   (2) [Xe] 4f⁷ 5d¹ 6s²
   (3) [Xe] 4f⁶ 6d²
   (4) [Xe] 4f⁶ 5d² 6s²

16. The method used to extract oils which give fragrance to flowers is
   (1) Fractional distillation
   (2) Steam distillation
   (3) Sublimation
   (4) Crystallisation

17. Which of the following pairs have the same number of atoms?
   (1) 16 g of O₂(g) and 4 g of H₂(g)
   (2) 16 g of O₂(g) and 44 g of CO₂(g)
   (3) 28 g of N₂(g) and 16 g of O₂(g)
   (4) 12 g of C(s) and 23 g of Na(s)
18. The elements with atomic numbers 16, 34, 52 are all
   (1) noble gases
   (2) halogens
   (3) chalcogens
   (4) heavy metals

19. Identify the correct statement(s) in relation to the following reaction:
    Zn + 2HCl → ZnCl₂ + H₂
    a. Zinc is acting as an oxidant ×
    b. Chlorine is acting as a reductant
    c. Hydrogen ion is acting as an oxidant
    d. Zinc is acting as a reductant ✓

20. Which of the following alkali metal is least reactive when treated with water?
    (1) Li  (2) Na
    (3) K  (4) Cs

21. The correct IUPAC name for
    CH₂ = C(CH₃) - CH = CH₂ is
    (1) 2-methylbutane
    (2) 2-methyl, 1, 3-butadiene
    (3) 1, 3-pentadiene
    (4) 2-methylbutene ✗
22. Which of the following is an aerosol?
   (1) Automobile exhaust
   (2) Shaving cream
   (3) Milk
   (4) Rubber

23. An element 'X' has the electronic configuration 2, 8, 8, 2. What is the formula and nature of its oxide?
   (1) XO, Neutral
   (2) XO₂, Acidic
   (3) XO₂, Amphoteric
   (4) XO, Basic

24. Match the following:

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. HgS</td>
<td>P. Pyrolusite</td>
</tr>
<tr>
<td>b. Fe₂O₃</td>
<td>Q. Cinnabar</td>
</tr>
<tr>
<td>c. PbS</td>
<td>R. Haematite</td>
</tr>
<tr>
<td>d. MnO₂</td>
<td>S. Galena</td>
</tr>
</tbody>
</table>

   (1) a-Q b-R c-S d-P
   (2) a-P b-Q c-R d-S
   (3) a-Q b-R c-P d-S
   (4) a-S b-R c-Q d-P

25. What is the mass of hydrochloric acid required to neutralize 500 ml of 0.5 molar sodium hydroxide?
   (1) 9.125 g
   (2) 18.5 g
   (3) 36.5 g
   (4) 40 g

\[ 0.5 \times \frac{x \times 10^{-2}}{2} \times \frac{1}{5} = 0.25 \]

22. പ്രത്യേകിക്കുക! 
   (1) കാലുകൾക്ക് പുകൾ
   (2) വിരിന്തെടുക
   (3) പാല
   (4) പ്രത്യേക

23. 'X' അകന്ത മൂലകം. തുറച്ചിറക്കം 2, 8, 8, 2 എണ്ണം. അകന്തം വിഭാഗത്തിൽ മുടിക്കണൽ മൂലകം എന്താണ്?
   (1) XO, സിന്യിലി
   (2) XO₂, വാല്യിലി
   (3) XO₂, ഓമാൻ
   (4) XO, ബാൾ

24. താപിച്ചിക്കൂട്ടുക.

<table>
<thead>
<tr>
<th>കൊണ്ടു A</th>
<th>കൊണ്ടു B</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. HgS</td>
<td>P. പനലൂസൈറ്റ്</td>
</tr>
<tr>
<td>b. Fe₂O₃</td>
<td>Q. കിനാബാർ</td>
</tr>
<tr>
<td>c. PbS</td>
<td>R. ഹെമമ്പിൾ</td>
</tr>
<tr>
<td>d. MnO₂</td>
<td>S. ഗാലെന ട്</td>
</tr>
</tbody>
</table>

   (1) a-Q b-R c-S d-P
   (2) a-P b-Q c-R d-S
   (3) a-Q b-R c-P d-S
   (4) a-S b-R c-Q d-P

25. 500ml; 0.5 മോൾ സാൾവാൾഡാ മലകാകലെ മൂലകം പ്രത്യേകിക്കുക! 
   (1) 9.125 g
   (2) 18.5 g
   (3) 36.5 g
   (4) 40 g
26. Which of the following compounds gives effervescence with sodium bicarbonate solution?

(1) \( \text{C}_2\text{H}_4\text{O} \)
(2) \( \text{C}_2\text{H}_4\text{O}_2 \)
(3) \( \text{C}_6\text{H}_6\text{O} \)
(4) \( \text{C}_3\text{H}_6\text{O} \)

27. A colourless solution changes gradually blue, when we put some copper turnings into it. The solution is most likely to be

(1) Ferrous sulphate solution
(2) Magnesium nitrate solution
(3) Silver nitrate solution
(4) Copper sulphate solution

28. A boy moving along a circular path of radius 10 m completes \(\frac{3}{4}\) of the circle in 10 sec. The magnitude of speed and velocity are

(1) 4.71 m/s and 47.1 m/s
(2) 4.71 m/s and 1.41 m/s
(3) 1.41 m/s and 4.71 m/s
(4) 1.41 m/s and 1.41 m/s

29. Two objects have masses in the ratio 1 : 2. If the forces acting on them are in the ratio 2 : 1 the ratio of their accelerations is

(1) 1 : 1
(2) 1 : 2
(3) 2 : 1
(4) 4 : 1
30. A current of 2 mA is flowing through a circuit for 10 sec. The number of electrons flowing through the circuit during this time will be about

(1) $6 \times 10^{18}$  (2) $120 \times 10^{18}$
(3) 20  (4) $120 \times 10^{15}$

31. The smallest unit of length among the following is

(1) Micrometer
(2) Nanometer
(3) Millimeter
(4) Light year

32. Resistivity depends on

(1) Length of the conductor
(2) Area of cross section of the conductor
(3) Nature of the conductor
(4) All the above

33. An object is kept at a distance of 1 m from a convex lens of power 2 dioptre. The image is formed at a distance ________ from the object.

(1) 0.5 m  (2) 1 m
(3) 2 m  (4) 0.75 m

34. An object is dropped from a height $h$, find the height from the ground at which the kinetic energy and potential energy are in the ratio 3 : 4.

(1) $\frac{3h}{4}$  (2) $\frac{4h}{3}$
(3) $\frac{4h}{7}$  (4) $\frac{3h}{7}$
35. Which of the following colour combination of light gives white light?
(1) Cyan and red
(2) Blue and red
(3) Magenta and red
(4) Yellow and red

36. The speed with which the earth revolves round the sun is about
(1) 1 km/s
(2) 11.2 km/s
(3) 30 km/s
(4) 8 km/s

37. The voltage supplied to a bulb is halved. Then the power consumed becomes
(1) Two times
(2) Four times
(3) Halved
(4) One-fourth

38. The net force acting on a book placed on a table is
(1) Force of gravity
(2) Force exerted by table on the book
(3) Frictional force
(4) Zero

35. (പരമ്പര നിരക്കിലെ വിഷയം പരാംബിഗ്രാമത്തിൽ വില്പാന്തിക്കാനുള്ള പദാർഥക്കൊമ്പാടിയാണ് ഇത്?
(1) കാർട്ടോൺ പുസ്തകം
(2) തെക്കേ പുസ്തകം
(3) തുറന്നിയ പുസ്തകം
(4) പരമ്പരയുള്ള പുസ്തകം

36. (വൃത്താകൃതിയിലെ വാണിജ്യ സംവിധാനത്തിൽ ഉള്ള ദൃശ്യാലം എത്ര കിളീടുകൾ ഉണ്ടാണ്?
(1) 1 km/s
(2) 11.2 km/s
(3) 30 km/s
(4) 8 km/s

37. (സൈന്യാടിയിലെ പെപ്പർകൊണ്ട് സംവിധാനത്തിൽ ഉള്ള കിളീടുകൾ എത്ര കിളീടുകൾ ഉണ്ടാണ്?
(1) 2 കിളീടുകൾ
(2) തെറ്റായ കിളീടുകൾ
(3) പെപ്പർബ്ലസ്ക്കൾ
(4) മെഡിക്യൂട്ടർ സ്റ്റാൻഡുകൾ

38. (കാര്യാലയത്തിലെ സ്ഥാനപ്പെട്ട വിഷയം മുൻകൂട്ടി പരാമ്രാണ്യാണ് ഇത്?
(1) മെഡിക്യൂട്ടർ സ്റ്റാൻഡുകൾ
(2) സാധ്യമായ സംവിധാനം (സ്ഥാനപ്പെട്ട) സ്റ്റാൻഡുകൾ
(3) ശ്രദ്ധിച്ച സ്റ്റാൻഡുകൾ
(4) പെപ്പർബ്ലസ്
39. Three identical resistors connected in parallel and connected to a source dissipates a power \( P \). The power dissipated in each resistor when they are connected in series and connected to the same source will be

1. \( 3P \)  
2. \( 9P \)  
3. \( \frac{P}{3} \)  
4. \( \frac{P}{9} \)

40. The velocity-time graph of an object thrown vertically up is

1. \[ \text{Diagram of a triangle} \]
2. \[ \text{Diagram of a triangle} \]
3. \[ \text{Diagram of a parabola} \]
4. \[ \text{Diagram of a straight line} \]
Class – X

41. Which of the following is the ones place of the product $3^{33} \times 8^{45}$?
   (1) 1    (2) 2
   (3) 3    (4) 4

42. India has a run rate of 3.2 in the first 10 overs. What should be the run rate in remaining 40 overs to win a game of target 282 runs?
   (1) 6.25   (2) 5.5
   (3) 7.25   (4) 8

43. If the figure given below has three identical squares, then what is the value of $\sin x$?

   \[ \frac{3}{3} \]

   (1) $\frac{3}{10}$   (2) $\frac{3}{3}$
   (3) 1    (4) $\frac{1}{\sqrt{10}}$

44. If A(2, 3), B(5, 7), C(11, 15) are three collinear points, then B divides the line joining A, C in the ratio
   (1) 1 : 1   (2) 1 : 3
   (3) 1 : 2   (4) 3 : 1
45. Consider a line passing through A(1, 2) and B(7, 10). Find a point on the above line which is 15 units away from the point A.

(1) (-7, -10)
(2) (10, 14) ✗
(3) (4, 6) ✗
(4) (-2, -2)

46. The figure shows a circle passing through the points A(0, 2), O(0, 0) and B(4, 0). What is the centre of the circle?

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

47. How many cubes, each of edge 6 cm can be cut from a Prism of dimension 42 cm x 36 cm x 24 cm?

(1) 134
(2) 224
(3) 186
(4) 168

45. A(1, 2), B(7, 10) വൃത്തനിഘാതിയുടെ കാര്യ്

എന്നാണ്‌ എന്നാണ്‌ പരിസ്ഥിതിക്കൊക്ക്‌. A നി

ഗോരുവ്വു 15 റുപ്പിയാണ്‌ കലക്കരിയായി

മാറ്റിയാണ്‌ ദേശീയുടെ അനുഗ്രഹം കൊക്ക്‌?

(1) (-7, -10)
(2) (10, 14)
(3) (4, 6)
(4) (-2, -2)

46. പെട്ടികളും A(0, 2), O(0, 0), B(4, 0) വൃത്തി

നിഘാതിയുടെ കാര്യ് എന്നാണ്‌ എന്നാണ്‌

പരിസ്ഥിതിക്കൊക്ക്‌. പരിസ്ഥിതിക്കൊക്ക്

ആരാണ്‌ എന്നാണ്‌?

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

47. 42 cm, 36 cm, 24 cm ബിഡുവുകൾ

ആലു മിശ്രിതപുല്ലിയിൽ നിന്ന്‌ 6 സെ. മി

ഗോരുവ്വു എന്നാണ്‌ മുള്ളായതൊക്കെ വുപൊന്നിയും?

(1) 134
(2) 224
(3) 186
(4) 168
48. Three bells commence tolling together and each toll after 30 minutes, 1 hour and 45 minutes. After what interval will they again toll together?

(1) 3 hrs
(2) 150 mts
(3) 2 hrs and 40 mts
(4) 200 mts

49. In the figure AB is 50 cm. What is the length of the side DC?

(1) $50\sqrt{3}$ cm
(2) $25\sqrt{3}$ cm
(3) $25 \over \sqrt{3}$ cm
(4) $50 \over \sqrt{3}$ cm

50. If Jan. 1, 2018 is Monday, what day of the week was Jan. 1, 2015?

(1) Tuesday
(2) Wednesday
(3) Thursday
(4) Friday
51. If 12 men or 16 women can do a work in 172 days, how long will 21 men and 15 women together do the same work?

(1) 64 days
(2) 70 days
(3) 80 days
(4) 95 days

52. If the surface area and volume of a sphere are equal, then what is the volume of the smallest box in which it can be placed?

(1) 81 cubic. units
(2) 32 cubic. units
(3) 27 cubic. units
(4) 64 cubic. units

53. Tickets numbered 1 to 50 are mixed and one ticket is drawn from it. What is the probability that the ticket drawn is a multiple of 5 and an even number?

(1) \( \frac{1}{5} \)
(2) \( \frac{1}{10} \)
(3) \( \frac{1}{2} \)
(4) \( \frac{1}{3} \)
54. If the selling price of 40 articles is equal to cost price of 50 articles, then the gain percent is

1. 25%
2. 15%
3. 20%
4. 24%

55. What is the value of
\[ \frac{1}{\sqrt{1} + \frac{1}{\sqrt{2} + \sqrt{3}} + \frac{1}{\sqrt{4} + \sqrt{5}} + \cdots + \frac{1}{\sqrt{8} + \sqrt{9}}} \]

1. 0
2. 1
3. -1
4. 2

56. If the sum of 3 numbers in AP is 18 and the sum of their square is 158, what are the numbers?

1. 1, 6, 11
2. 3, 6, 9
3. 0, 6, 12
4. -1, 6, 13

57. In the figure, A, B, C, D, E, F are midpoints of the sides of equilateral triangles. What is the ratio of the areas of largest triangle to the smallest triangle?

1. 4 : 1
2. 8 : 1
3. 32 : 1
4. 16 : 1
58. If \[1^2 + 2^2 + 3^2 + \ldots + 10^2 = 385\], then what is the value of \[2^2 + 4^2 + 6^2 + \ldots + 20^2\]?

- (1) 1540
- (2) 770
- (3) 1925
- (4) 1000

59. The figure shows a regular pentagon inscribed in a circle with centre C. The value of \(x\) is

- (1) 54°
- (2) 36°
- (3) 72°
- (4) 80°

60. What is the ratio of areas of incircle to circumcircle of an equilateral triangle?

- (1) 1 : 4
- (2) 1 : 2
- (3) 1 : 3
- (4) 2 : 3
61. The Khilafat Movement was started
(1) To protest against the partition of Bengal
(2) To protest against the Jallianwalla Bagh incident
(3) To defend the power of the Khalifa
(4) To protest against the First World War

62. Some events related to India’s National Movement are given below. Identify the correct chronological order.
A. Salt Satyagraha
B. Swadeshi Movement
C. Lahore Congress
D. Chauri-Chaura Incident
(1) B, C, D, A
(2) B, D, C, A
(3) B, A, C, D
(4) B, A, D, C

63. Which among the following is wrongly related?
(1) Long March – Chinese Revolution
(2) Tennis Court – French Oath
(3) Boston Tea – American war of Independence
(4) Bloody Sunday – Latin American Revolution
64. Name the British Prime Minister who participated in the Munich Conference of 1938.
   (1) Winston Churchill 
   (2) Neville Chamberlain 
   (3) Stanley Baldwin 
   (4) Ramsay Mac Donald

65. The Rebellion held in the kingdom of Bastar is an example of
   (1) Rebellion in the forest 
   (2) Peasant rebellion 
   (3) Rebellion of sepoys 
   (4) Poligar revolt

66. Which among the following is the correct pair?
   (1) Bengali – Surendranath Banerji 
   (2) Voice of India – Mahatma Gandhi 
   (3) New India – Lala Lajpath Rai 
   (4) Nation – Dadabhai Naoroji

67. The Second International was held in Paris on the centenary of
   (1) The declaration of the rights of man and of the citizen 
   (2) Formation of the National Convention 
   (3) End of the Reign of Terror 
   (4) Fall of the Bastille Prison

68. 'Mein Kampf', written by Hitler, was published in
   (1) 1924 
   (2) 1925 
   (3) 1933 
   (4) 1928

64. 1938 ലെ മൺ‌ഹറ മുഖ്യമന്ത്രിയായ പ്രദക്ഷിണമായ ഇന്റർന്റൽ (അന്തർദേശീയ) നടത്തിയ വാക്യത്തിൽ
   (1) വില്ലീന്റി ബെന്നേർജി
   (2) നാവീൽ ചെയ്മ്ബൽലേൻ
   (3) സ്റ്റാൻലീ ബാല്യ്ഡ്
   (4) രാമ്സ്യ മാക്കാലോ

65. ബസ്ടാർ രേഖയുടെ മക്കായായ കൊപ്പി ഇന്ത്യയുടെ പ്രകാശകാലക്കാലത്തിൽ
   (1) ഭര്ത്താരായ ഇന്ത്യനിൽ
   (2) പ്രസാദപുര ഇന്ത്യനിൽ
   (3) വൈറ്റോർജിയുടെ ഇന്ത്യനിൽ
   (4) ബോയിനോഡ് ഇന്ത്യനിൽ

66. വ്യാപാരസാമൂഹ്യത്തിലെ കുപ്പിക്കലുകൾ എത്രെയാണ്?
   (1) പരാസാമൂഹിക കുപ്പിക്കൽ
   (2) മാരാളത്തിലെ കുപ്പിക്കൽ
   (3) മുക്താനന്തര കുപ്പിക്കൽ
   (4) മാദ്രാസ് - മാഹിത്തമായ കുപ്പിക്കൽ

67. മോണ് മുഖ്യമന്ത്രിയായ പ്രദക്ഷിണമായ ഇന്ത്യയുടെ പ്രകാശകാലം എത്ര വർഷം ഒരുക്കിയും?
   (1) ക്കെറ്റിൽ - ഇന്ത്യൻ താമസിത്തിൽ
   (2) മാരാളത്തിലെ - മാരാളത്തിലെ താമസിത്തിൽ
   (3) മാദ്രാസ് - മാദ്രാസ് താമസിത്തിൽ
   (4) മാദ്രാസ് - മാദ്രാസ് താമസിത്തിൽ

68. മീൻ കംഫ്യി, ഹിറ്റ്ലർ എഴുതിയ വാക്യം, എന്താണ് പ്രസിദ്ധമായി?
   (1) 1924 
   (2) 1925 
   (3) 1933 
   (4) 1928
69. The Spanish civil war is considered as the 'dress rehearsal' of
(1) The First World War
(2) The Russian Revolution
(3) The Second World War
(4) The Chinese Revolution

70. The names of some writers and their works are given below. Match them correctly.

<table>
<thead>
<tr>
<th>Writers</th>
<th>Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Omar Khayyam</td>
<td>I. Rajatharangini</td>
</tr>
<tr>
<td>B. Al-Firdausi</td>
<td>II. Geethagovindam</td>
</tr>
<tr>
<td>C. Kalhana</td>
<td>III. The Rubaiyyat</td>
</tr>
<tr>
<td>D. Jayadeva</td>
<td>IV. Shahnamah</td>
</tr>
</tbody>
</table>

(1) A - IV B - III C - I D - II
(2) A - IV B - III C - II D - I
(3) A - III B - IV C - II D - I
(4) A - III B - IV C - I D - II

71. Name the Iron and steel industrial firm started, with the assistance of Germany, in India.
(1) Bhilai
(2) Bocaro
(3) Rourkela
(4) Durgapur
72. Consider the following statements and identify the correct response from the options given.

**Statement – I:** The council called Ashtapradhan helped the Maratha ruler Sivaji in administration.

**Statement – II:** Chawth and Sardeshmukhi were the two kinds of taxes that existed in the Maratha kingdom.

- (1) Statement – I is true and Statement – II is false
- (2) Statement – I is false and Statement – II is true
- (3) Both the statements are true but Statement – II is not the correct explanation of Statement – I
- (4) Both the statements are true and Statement – II is the correct explanation of Statement – I

73. Name the state through which the tropic of cancer passes?

- (1) Rajasthan
- (2) Bihar
- (3) Odisha
- (4) Assam

74. Identify the correct pair.

- (1) Tapti – Mahabaleswar hills
- (2) Godavari – Baithul district
- (3) Krishna – Nasik district
- (4) Kaveri – Brahamagiri hills

75. Which are the mountain ranges of the Peninsular plateau?

- (1) Siwalik ranges
- (2) Karakoran ranges
- (3) Satpura ranges
- (4) Khasi hills

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72. പരാജയപ്പാദനത്തിന് (സ്ഥാനപ്പാദനത്തിന് വിജയപ്പാദനത്തിന്) ആയി പുരോഹിതനായ ചാവഥ്ത് സരശ്രീകുളി നടത്തി കാരണം സാർത്ഥവും മരിയയായി തന്നെ അനുഭവിച്ചു.

- (1) വാസ്തുവികത അല്ല (വാസ്തുവികത തുടരുന്നു)
- (2) വാസ്തുവികത തുടരുന്നു (വാസ്തുവികത അല്ല)
- (3) അന്യ സ്ഥാനപ്പാദനത്തിന് വിജയപ്പാദനത്തിന്. ജന്മ സാറ്റിമും വാസ്തുവികത എന്നായിരുന്നു വാസ്തുവികത എന്നായിരുന്നു
- (4) വാസ്തുവികത അല്ല (വാസ്തുവികത തുടരുന്നു) (വാസ്തുവികത തുടരുന്നു വാസ്തുവികത എന്നായിരുന്നു)

73. എന്താണ് താഴ്ച്ചിലെ പ്രധാനത്തിന്റെ ദീപികാ ഇരുക്കുന്നത്?

- (1) ഓസ്ലത്തിന്റെ തീർത്ഥാടനം
- (2) മുൻനടയിൽ
- (3) ചത്തറൻ
- (4) തെയ്യ്യം

74. ആംബോയി അതിനിടയ്ക്ക്?

- (1) തെലുങ്കിൽ – തെലുങ്കിൽ എന്നായിരുന്നു
- (2) തെലുങ്കിൽ എന്നായിരുന്നു
- (3) അന്യവിധായിക
- (4) കലാസാരിൽ

75. മാസിലെ പാലിഡിവേഷൻ തുടരുന്നത് എന്നതാണെങ്കിൽ?

- (1) മാസിലെ പാലിഡിവേഷൻ
- (2) മാസിലെ പാലിഡിവേഷൻ
- (3) മാസിലെ പാലിഡിവേഷൻ
- (4) മാസിലെ പാലിഡിവേഷൻ
Class – X

76. A peculiar characteristics of the retreating monsoon season
   (1) October heat
   (2) Loo the hot wind
   (3) The onset of the cyclone which forms in the Mediterranean sea
   (4) Mango showers

77. Identity the statement related to laterite soils.
   (1) Type of soil in Deccan trap region
   (2) Found in regions of high rainfall and intermittent high temperature
   (3) The colour of this soil is due to the presence of iron
   (4) Major soil of the North India plains

78. The term ‘Arabica’ indicates
   (1) A crop season of India
   (2) A type of tea cultivated in Kerala
   (3) A type of rice seeds
   (4) High quality coffee produced in India

79. The Indian state which produces the largest quantity of manganese is
   (1) Jharkhand
   (2) Odisha
   (3) Chhattisgarh
   (4) West Bengal
80. Match the correct pair of the major nuclear power stations in India and the states in which they are located?
   1. Tharapur a. Tamil Nadu
   2. Narora b. Rajasthan
   3. Kalpakkum c. Uttar Pradesh
   4. Rawatbhata d. Maharashtra
   (1) 1 - d  2 - c  3 - a  4 - b
   (2) 1 - d  2 - a  3 - b  4 - c
   (3) 1 - c  2 - d  3 - a  4 - b
   (4) 1 - b  2 - d  3 - a  4 - c

81. Which waterway in India is considered as National Water Way - 2 (NW - 2) ?
   (1) The waterway in River Ganga which connects Allahabad and Haldia
   (2) Western coastal canal in Kerala
   (3) The waterway in Bhramaputra river which connects Sadia and Dhubri
   (4) The Mandovi and Zuari rivers

82. Classify the following resources suitably.
   i. Wind
   ii. Metals
   iii. Fuels
   iv. Forest

   (1) i and ii renewable
   (2) i and iv renewable
   (3) iii and iv non-renewable
   (4) i and ii non-renewable
83. The correct description of magnetite
(1) The major ore of Manganese
(2) The ore of Aluminium
(3) The high quality iron ore
(4) None of the above

84. The Manikaran in Himachal Pradesh is famous for
(1) Geothermal project
(2) Oil refinery ×
(3) Lignite mining ×
(4) Wind mills ×

85. Two countries have the same National Income, but having different average incomes. Pick out the correct reason from the following answers.
(1) The size of population is equal ×
(2) The country with higher average income country is less populated
(3) In the country with lower average income, the working population is less
(4) In the country with higher average income the size of the juvenile population is lower

86. Human development index is measured on the basis of
(1) Education, Health and Social Security
(2) Education, Health and Income inequality
(3) Education, Health and National average income
(4) Education, BMI and Social status of individuals
Class - X

87. During the initial stages of economic growth, the major contributor to the GDP is
(1) The tertiary sector
(2) The manufacturing sector
(3) The public sector
(4) The agriculture sector

88. In one of the following states of Indian Union, the IMR is higher than that in some of the poorest regions of the world. Pick the answer, from the options given below:
(1) Bihar
(2) Orissa
(3) Madhya Pradesh
(4) Uttar Pradesh

89. Credit can be obtained without collateral securities from
(1) Co-operative Banks
(2) Regional Rural Banks
(3) SHGs
(4) Grameen Banks

90. In India, the informal credit-sector activities are supervised by
(1) The director of informal credit
(2) The finance department of the Government
(3) The Rural Inspectorate of credit
(4) None of the above

87. ആരോഗ്യപ്രവൃത്തിക്ക് മുന്നോട്ടുള്ളവയ്ക്ക് നല്ലതുള്ള സാമൂഹ്യസാധനങ്ങളിലെ സേവന മുഖ്യക്കാരന്റെ പ്രവൃത്തി
(1) സേവനവിദ്യാ
(2) വിദ്യാകാരാം
(3) വിദ്യാം
(4) സേവനവിദ്യാ

88. പ്രകൃഷ്ടൽ പ്രവൃത്തികൾ എന്നിവ പ്രവര്‍ത്തിക്ക് അവധി അനുസരിച്ചെത്തിയ പ്രവൃത്തികളിലെ എന്നിവ, എന്ന്. കൃഷ്ണ. മാധവ. കുണ്ഠിപ്പത്തി, നാലാം വികസന ആന്റർ‌വേഴ്സിയിൽ എന്നിവയുടെ പുറത്തിപ്പെട്ട തല എന്നായിരുന്നു.
(1) തല
(2) തല
(3) തല
(4) തല

89. കുഞ്ഞിമാവിന്റെ പാല ആഗദ്ധ്യം ആവർത്തിക്കുന്നത്
(1) സേവനവിദ്യാ
(2) പേര്‍മാത്രം (അകാംഭി ഭാഷക്കാരന്റെ
(3) ഭാഷ. മു. ശ. കാന്ത
(4) ശുചിത്താനി ഭാഷാകോണ്ട

90. പ്രകൃഷ്ടൽ പ്രവൃത്തികൾ എന്നിവയ്ക്ക് അനുമതി നല്‍കുന്ന പ്രദേശത്ത് (ആന്റർ‌വേഴ്‌സിയിലെ കൊള്ളെന്ന്)
പ്രവൃത്തികളുടെ പ്രവൃത്തി
(1) സേവനവിദ്യാ
(2) പേര്‍മാത്രം (അകാംഭി ഭാഷക്കാരന്റെ
(3) ഭാഷ. മു. ശ. കാന്ത
(4) ശുചിത്താനി ഭാഷാകോണ്ട
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>92. COPRA is</td>
<td>(1) A judicial set-up (2) A quasi-judicial organisation</td>
<td>(2) A quasi-judicial organisation</td>
</tr>
<tr>
<td>93. Who acts as the connecting link between the executive head of the nation and the Council of Ministers in India?</td>
<td>(1) Prime Minister (2) Speaker of Lok Sabha (3) Cabinet Secretary (4) Vice-President</td>
<td>(1) Prime Minister</td>
</tr>
<tr>
<td>94. Why do MNCs prefer to work under the conditions of cheap unskilled labourers?</td>
<td>(1) Proximity to markets (2) Strict labour laws (3) Costly skilled labourers (4) Enacted during 1985</td>
<td>(4) Enacted during 1985</td>
</tr>
</tbody>
</table>
95. Who has the power to enlarge the jurisdiction of the Supreme Court of India?

(1) Parliament by law

(2) The President of India

(3) Chief Justice of India

(4) The President in consultation with the Chief Justice of India

96. Which of the following is NOT an All India Service?

(1) Indian Administrative Service

(2) Indian Police Service

(3) Indian Foreign Service

(4) Indian Forest Service

97. Who has the power to create or abolish the state Legislative Council?

(1) Parliament on the recommendation of the Governor

(2) President on the recommendation of the Governor

(3) President on the recommendation of the State Assembly

(4) Parliament on the recommendation of the State Assembly
98. Constitutionalism does NOT mean

(1) Government based on Constitution
(2) Government limited by Constitution
(3) Government not limited by Constitution
(4) Government which functions according to law

99. Which of the following committee is related to electoral reforms in India?

(1) Singhvi Committee
(2) Indrajit Gupta Committee
(3) Sarkaria Commission
(4) Ashok Mehta Committee

100. Which of the following is NOT a feature of a Democratic System?

(1) Commitment of the Government to the people
(2) Tolerance to consider opposite points of view
(3) Enhancement of the dignity of citizens
(4) Daniel of freedom of expression