ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI

AEES EXCELLENCE EXAMINATION - 2019

CLASS: VIII

MARKS : 75
DURATION: 2 HOURS

Read the following instructions carefully before you answer the questions.

1. Answers are to be given on the OMR sheet provided to you.

2. There are 75 questions in this test.
   Question number 1 to 10 are from English.
   Question number 11 to 20 are from Mathematics.
   Question number 21 to 35 are from Science.
   Question number 36 to 50 are from Social Science.
   Question numbers 51 to 55 are from Current affairs and
   Question number 56 to 75 are from Mental Ability.

3. All the questions are compulsory.

4. Please read the instructions given on the OMR before marking the answers.

5. Rough work can be done anywhere in the booklet but not on the OMR or loose paper.

   Rough pages are also provided at the end of the question paper.

6. Every correct answer will be awarded one mark. No negative mark for wrong answer.

7. Return only the OMR sheet to the invigilator at the end of the test. The test-booklet can be carried by the candidates after the exam.

Name:	
Class/Sec:	
Roll No.:	
UID Number:	
Student Sign:	
Invigilator's Sign:	

Choose the correct options to complete the sentences in questions 1 to 3.

1 "The prize was given to the girl --------------- they said stood first".
   A   who   B   whom
   C   whose   D   that

2 The choice is between glorious death --------------- shameful life.
   A   or   B   inspite of
   C   rather   D   and

3 The train --------------------- the platform an hour ago.
   A   could leave   B   has left
   C   left   D   had left

4 Three of the words given below are wrongly spelt. Pick the word with the correct spelling.
   A   amature   B   amateur
   C   amatuer   D   ameteur

5 Pick the correct option that gives the meaning of the expression 'To admonish.'
   A   Prevent   B   Doubt
   C   Censure   D   Clarify

6 Pick the correct option that gives the antonym of the word 'Vigilant.'
   A   Refined   B   Fixed
   C   Exalt   D   careless

7 Choose the correct option that completes the sentence "Sherlock Holmes --------------- everything from the smallest of clues."
   A   deduced   B   deducted
   C   inducted   D   dedicated

8 Bigotry is deep-rooted in the psyche of India. Choose the word that gives the meaning of the word 'Bigotry.'
   A   Corruption   B   social injustice
   C   deep materialism   D   religious intolerance

9 Pick the meaning of the expression 'Ad Interim' from the options given below.
   A   constantly   B   continually
   C   from the beginning   D   in the meantime

10 Choose the meaning of the word 'Biennial' from the options given below.
   A   once every two months   B   once every two years
   C   twice a month   D   twice a year

11 Which of the following is true?
   A $5/7 < 7/9 < 9/11 < 11/13$ B $11/13 < 9/11 < 7/9 < 5/7$
   C $5/7 < 11/13 < 7/9 < 9/11$ D $5/7 < 9/11 < 11/13 < 7/9$

12 There were two candidates in an election. One got 62% votes and was elected by
    margin of 144 votes. The total number of votes were
    A   500   B   600
    C   700   D   800

13 Match the following :

    Column 1   Column 2
    P) Construction of a quadrilateral is   1) Two unequal sides and included diagonals
      possible if at least   are given
    Q) Construction of quadrilateral must satisfy   2) Five independent elements are given
                                                         3) Four sides, four angles and two diagonals
    R) A kite can be drawn if its   are given
                                                         4) Triangle inequality and angle sum property
    S) A quadrilateral has   of a triangle

        P   Q   R   S
    A   3   2   4   1
    B   3   4   2   1
    C   2   4   1   3
    D   4   3   1   2

14 State T for true and F for false
        i) The square root of 0.9 is 0.3
        ii) The square root of perfect square of n digits will have (n+1)/2 digits if n is odd
        iii) All numbers of a Pythagorean triplet is odd.
        iv) There are 200 natural numbers between 100^2 and 101^2.
        (i)   (ii)   (iii)   (iv)
    A   T   F   T   F
    B   F   T   F   T
    C   T   T   F   F
    D   F   T   T   F

15 Difference of two perfect cubes is 189. If the cube root of the smaller of the
    two numbers is 3, find the cube root of the larger number.
    A   4   B   6
    C   8   D   20

16 Consider the following statements:
        I. Every rhombus is a kite.
        II. Every trapezium is a rhombus.
        III. Every rhombus is a parallelogram.
        IV. Every rhombus is a square.
    A   I and III are correct.   B   I and II are correct.
    C   All are correct.   D   III and IV are correct.

17 If a number x is 10% less than the another number y and y is 10% more than 125,
   then x is equal to?
    A   123.75   B   140.55
    C   143   D   150

18 If z/(z + 15) = 4/9 , then the value of 'z' is
    A   11   B   12
    C   13   D   14

19 If 31Q + 1Q3 = 502. Find the value of the digit Q
    A   9   B   7
    C   6   D   1

20 Statement S: If a side of square is tripled, it's area becomes 9 times of the original area.
    Reason R: Area of square is directly proportional to it's side.
    A   Both S and R are correct and R is correct explanation for S.
    B   S is correct but R is incorrect.
    C   both are correct but R is not correct explanation of S.
    D   Both are incorrect.

21 Some green seeds were soaked in water overnight . A few seeds floated in water and the other sank
    down.The floating seeds were sown in pot 'X'.The sunken seeds were divided into 2 two parts and sown in 'Y'
    and 'Z' pots respectively.Same soil sample were used in all 3 pots and same amount of water was given
    regularly.In pot 'Y' some cowdung was added and in pot 'Z' urea was added.Which of the following will be
    observed after 10 days?

    (i) Lot of growth in 'Z' with replenishment of all the nutrients
    (ii) Lot of growth in 'X' with replenishment of all the nutrients
    (iii) Lot of growth in 'Y' with replenishment of all the nutrients
    (iv) No growth in 'X'
    A   (i) and (ii)   B   (i) and (iv)
    C   (iii) and (iv)   D   (ii) and (iii)

22 Four children -Achu,Kichu, Michu and Chachu were suffering from the following diseases-
    Tuberculosis.Measles,Typhoid and Malaria respectively.Which of them could be administered with
    antibiotics to cure his disease?
    A   Achu and Kichu   B   Achu and Michu
    C   Kichu and Michu   D   Michu and Chachu

23 Sohan was heating a material.He observed that it was not catching fire,not getting melted and not getting
    deformed.The material could be
    A   Acrylic   B   PVC
    C   Wool   D   Melamine

24 Seema burnt a substance and collected the ash in a test tube.She added some water to that test tube and
    tested it with litmus paper. She observed that red litmus paper turned blue .Which of the following could be
    the burnt substance?
    A   Carbon   B   Sulphur
    C   Phosphorous   D   Magnesium

25 Four fuels X,Y,Z and R of 500 g,2 kg, 250 g and 4 kg were taken respectively.These fuels produced
    25000kJ,20000kJ,50000kJ and 50000kJ of energy respectively.Which among the following show desending
    order of their calorific values?
    A   Y ⟶ X ⟶ Z and R   B   Z ⟶ X ⟶ R ⟶ Y
    C   Y ⟶ R ⟶ X ⟶ Z   D   X ⟶ Z ⟶ Y ⟶ R

26 Different component of petroleum are separated by fractional distillation. What is the correct sequence of fractions obtained in the fractionalizing column from top to bottom?

A   Petroleum gas, gasoline, lubricating oil   B   Petroleum gas, lubricating oil, gasoline
C   gasoline, lubricating oil, Petroleum gas   D   lubricating oil, gasoline, Petroleum gas
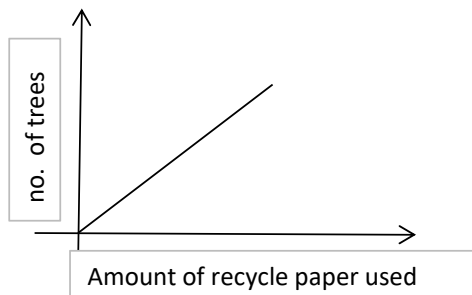
27 If we use more recycled paper instead of fresh ones,which of the following graphs shows the results that would be obtained after a few years?
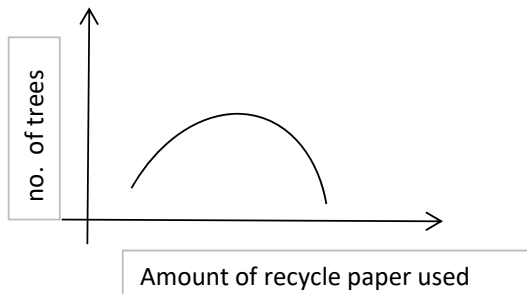
A
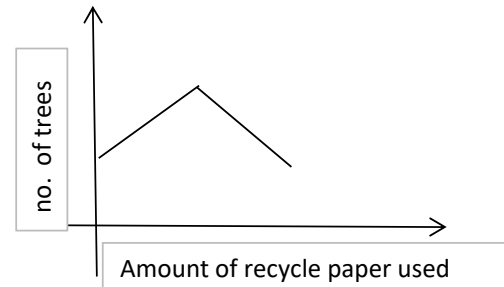
B

C
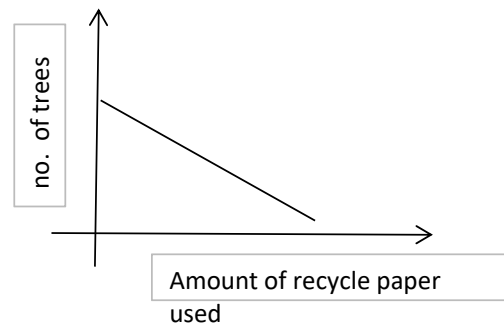
D

28 Four slides were observed by four students and noted the main features of each one as follows:-
   (i)   slide I---- disc shaped and no nucleus.
   (ii) slide II----Single long branch and short branches were coming out of cell body.
   (iii) slide III----slipper shaped with lots of hair like structures coming out of cell body.
   (iv) slide IV-cells with cell wall and nucleus.

   what would be the possible inference?

   A   slide I-WBC   B   slide I-RBC
       Slide II-Measles   Slide II-Nerve cell
       Slide III-Paramoecium   Slide III-Paramoecium
       Slide IV--- Check cell   Slide IV--- Onion cell
   C   slide I-WBC   D   slide I-WBC
       Slide II-Measles   Slide II-Nerve cell
       Slide III-Anoeba   Slide III-Amoeba
       Slide IV--- Onion cell   Slide IV--- Check cell

29 A child was chased by a dog,he got scared and started running very fast.Which hormone helped to initiate this action?
   A   Insulin   B   Testosterone
   C   Estrogen   D   Adrenaline

30 A frog laid eggs in distilled water kept in laboratory tank.The eggs hatched into tadpoles.
But tadpoles died after few days without developing into adult frog.
What could be the possible reason among the following?

  A Tadpoles cannot grow into frog in laboratory under any circumstances

  B Distilled water do not have insulin which is necessary for metamorphosis

  C Distilled water do not have iodine which is necessary for metamorphosis

  D Tadpoles do not undergo metamorphosis in water,they need land

31 Which of the following object with same mass,exerts the maximum pressure on the floor?

  A a cube with side of 5 cm

  B a cone with diameter 5 cm

  C a cuboid with sides 10 cm and 5 cm respectively

  D a cylinder with diameter 6 cm

32 A vehicle is moving towards west .Neglect any force due to air. The frictional force
on the vehicle by the road.

  A must be exerted towards west

  B must be zero

  C must be exerted towards east and west

  D must be towards east

33 Sound travels in air with a speed of 346 m/s. A child blows a whistle and hears its echo
after 1 second.The sound of the whistle got reflected from a wall.
The distance between the child and the wall is

  A 347 m

  B 346 m

  C 34.6 m

  D 3.46 m

34 A magnetic compass is placed above a copper wire when there is no current flowing in the wire.
If a current of 15 A is flowing through the wire what change will you observe?

  A copper wire melt

  B the needle of compass deflects

  C the compass will lose its magnetic property

  D no change is observed

35 Two plane mirrors are kept parallel to each other.An incident ray making an angle of 30 degree with the
mirror 1,reflected and falling on the miror 2,as shown in the figure.The angle of reflection(r_2) in the mirror 2
by the same incident ray.What will be r_2?
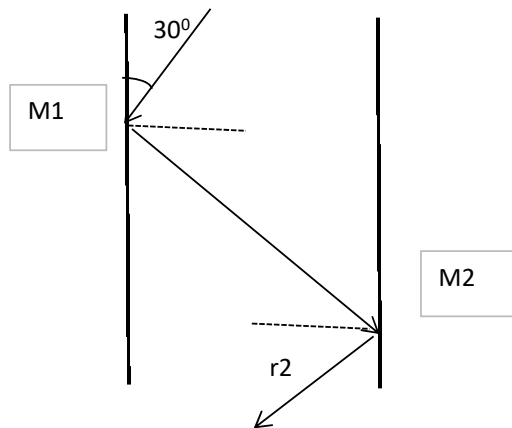
  A 30degree

  B 60 degree

  C 120 degree

  D 150 degree

36 Tipu Sultan established a close relationship with the_____ in India and modernised his
army with their help.

  A British

  B French

  C Dutch

  D Portuguese

37 Which Mughal Emperor blessed the " Revolt of 1857"?

  A Bahadur Shah Zafar

  B Mirza zafar

  C Bhakt Khan

  D Mir Qasim

38 Who said the " Education means all round drawing out of the best in child and man, body, mind and spirit"?

A   Rabindranath Tagore   B   Mahatma Gandhi
C   Swami Dayanand Saraswati   D   Subash Chandra Bose

39 Who supported the idea of "Self Respect Movement"?
A   Mumtaz Ali   B   Periyar
C   Rammohun Roy   D   Pandita Ramabai

40 Which place is associated with "Salt Satyagraha"?
A   Ahmedabad   B   Chauri Chaura
C   Dandi   D   Nagpur

41 Resources that are found everywhere are called _____.
A   Localised Resources   B   Ubiquitous Resources
C   Actual Resources   D   Potential Resources

42 Manganese is an example of _____.
A   Ferrous Minerals   B   Non-ferrous Minerals
C   Non-metallic Minerals   D   None of these

43 The leading producers of Copper in the World are_____.
A   Brazil and Peru   B   Chile and Peru
C   Chile and Venezula   D   Chile and Argentina

44 Thorium is found in large quantities in the _____ sands of Kerala.
A   Mountain   B   River
C   Monazite   D   None of these

45 Viticulture refers to the cultivation of _____.
A   Silk Worms   B   Fish
C   Flowers   D   Grapes

46 The illegal trade in humanbeing, particularly women and children termed as _____.
A   Human Exploitation   B   Child Labour
C   Bonded Labour   D   Human Trafficking

47 How many members are nominated to the Rajya Sabha by the President of India?
A   16   B   18
C   12   D   15

48 Which Article of the Constitution, ensures the every person has a fundamental right to
    be defended by a lawyer?
A   Article-15   B   Article-22
C   Article-21   D   Article-17

49 The Scheduled Caste and Scheduled Tribes (Prevention of Attrocities Act) was implemented in the
    year_____.

A   1989   B   1979
C   1969   D   1999

50
    _____, a Non-Government Organization has been working for decade to address the problems
    of Sanitation.
A   Sulabh   B   Anup
C   Milan   D   Mitraa

51 Which of these sets a record with 'supersonic' parachute for Mars 2020 mission?
A   ESA   B   ISRO
C   NASA   D   JAXA

52 Vision Document 2030 is long-term vision for the _____.
   A   Department of Aviation   B   Department of Health & human welfare
   C   Department of Forest   D   Department of Law and order

53 The world's largest neuromorphic supercomputer which was switched on for the first time is:
   A   Stampede   B   JuQueen
   C   SpiNNaker   D   Vulcan

54 Researches from this IIT institute developed a Decision Support System (DSS) to help
   maximise LPG connection in BPL households.
   A   IIT Kanpur   B   IIT Kharagpur
   C   IIT Guwahati   D   IIT Howrah

55 Which IIT has launched an app 'Roshni' to help blind identify notes?
   A   IIT Madras   B   IIT Roorkee
   C   IIT Hyderabad   D   IIT Ropas

56 Choose the word which is different from the rest.

   A   Tuberculosis   B   Small pox

   C   Cholera   D   Typhoid

57 Choose the word which is different from the rest
   A   Paper   B   Wool
   C   Wood   D   Plastic

58 BEGK : ADFJ :: PSVY : ?
   A   ROUX   B   ORUX
   C   LQUT   D   LOQT

59 Kishore after coming out of the school walked 400 m straight towards South. After he turned to the left and
   walked 300m. straight and stopped there. Then,
   What is the minimum distance from School to Kishore ?
   A   700 m   B   100 m
   C   200 m   D   500 m

60 Find the correct code from the following: If D E L H I is coded as C C I D D, then BOMBAY is coded as

   A   AJMTVT   B   AMJXVS
   C   MJXVSU   D   WXYZAX

61 Which one will replace the question mark ?

A_2	C_4	E_6
G_3	I_5	?
M_5	O_9	Q_{14}

   A L_{10} B K_{15}

   C I_{15} D K_8

62 Insert the missing characters   b e d f ? h j ? l

   A   im   B   mi
   C   in   D   jm

63 Kanmani ranked sixteenth from the top and twenty ninth from the bottom among those who passed an examination. Six boys did not participate in the competition and five failed in it. How many boys were there in the class?

A   35   B   45
C   50   D   55

64 Find the missing term :   3, 12, 27, 48, 75, 108, ?
A   147   B   157
C   163   D   182

65 Arrange the given words in a meaningful logical order and then select the appropriate sequence from the alternatives provided below each questions.
   1.Gold   2.Iron   3.Sand   4.Platinum   5.Diamond
A   4,5,1,3,2   B   2,4,3,5,1
C   3,2,1,5,4   D   5,4,3,2,1

66 Out of the four figures marked (1), (2), (3) and (4) , three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.
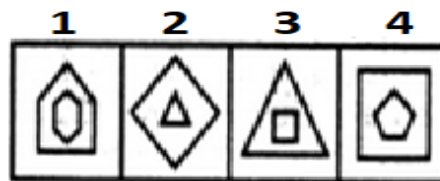
A   1   B   2
C   3   D   4

67 Out of the four figures marked (1), (2), (3) and (4) , three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.

A   1   B   2
C   3   D   4

68 In the following question which consists of five figures as the problem figure followed by four figures marked (a), (b), (c) and (d) as the answer figures. Select the correct answer figure which will continue the series as established by the problem figures.

           1   2   3   4   5
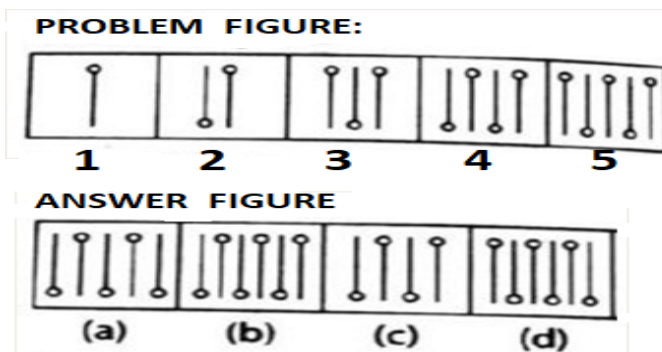
A   a   B   b
C   c   D   d

69   In the following question, complete the missing segment by selecting from the given alternatives, (a), (b), (c) and (d).

Problem Figure

(X)

Answer Figures

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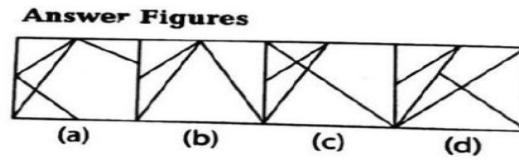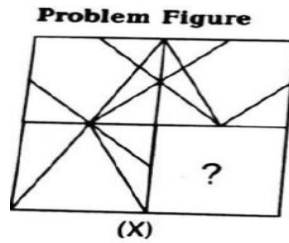
A   a   B   b
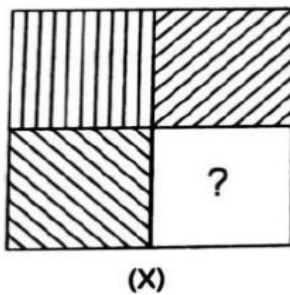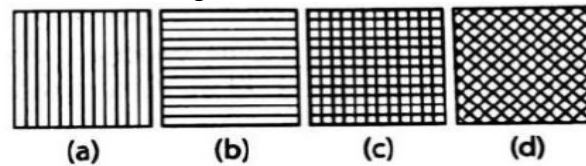C   c   D   d

70   Select a figure from amongst the Answer Figures which will continue the same series as established by the Problem Figures.
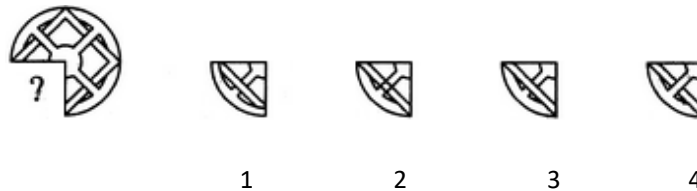
Problem Figures   Answer Figures:

(X)

(a)   (b)   (c)   (d)

A   a   B   b
C   c   D   d

71   Identify the figure that completes the pattern.

            1   2   3   4

A   1   B   2
C   3   D   4

72   Look at this series: 14, 28, 20, 40, 32, 64, ... What number should come next?
A   52   B   56
C   96   D   128

73   Look at this series: 9 11 33 13 15 33 17 , ... What number should come next?
A   19 33   B   33 35
C   33 19   D   19 21

74 Choose the picture that would go in the empty box so that the two bottom pictures are related in the same way as the top two are related.

A   1   B   2
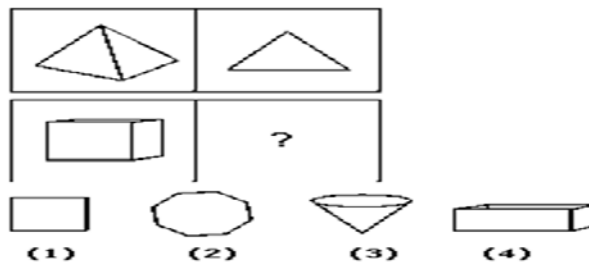C   3   D   4

75 Choose the picture that would go in the empty box so that the two bottom pictures are related in the same way as the top two are related.

A   1   B   2
C   3   D   4

◊◊◊

ROUGH WORK

ROUGH WORK

ROUGH WORK

ROUGH WORK

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CLASS-VIII	
ANSWER KEY	
Q.NO	CORRECT OPTION
1	A
2	D
3	C
4	B
5	C
6	D
7	A
8	D
9	D
10	B
11	A
12	B
13	C
14	B
15	B
16	A
17	A
18	B
19	QUESTION CANCELLED
20	B
21	C
22	B
23	D
24	D
25	B
26	A
27	C
28	B
29	D
30	C
31	C
32	D
33	B
34	B
35	B
36	B
37	A
38	B
39	B
40	C

41	B
42	A
43	B
44	C
45	D
46	D
47	C
48	B
49	A
50	A
51	C
52	C
53	C
54	B
55	D
56	B
57	D
58	B
59	D
60	B
61	B
62	A
63	D
64	A
65	C
66	B
67	C
68	B
69	B
70	B
71	D
72	B
73	A
74	B
75	A