



## ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI

### AEES EXCELLENCE EXAMINATION - 2019

**CLASS: VII**

**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.  
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.

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

- 1 Choose the correct antonym of the word 'Trivial'.
- A) Calm  
B) Important  
C) Dangerous  
D) paltry
- 2 Choose the correct tense form and fill in the blank:  
My cat ----- into the well yesterday.
- A) Had fallen  
B) Was falling  
C) Fell  
D) felled
- 3 Choose the most appropriate option and fill in the blank.  
India's highest -----award is the Bharat Ratna.
- A) Civic  
B) Civil  
C) Civilian  
D) Civilized
- 4 Choose the option with the correct spelling.
- A) Accommodation  
B) Accomodation  
C) Acommodation  
D) Accommadation
- 5 Choose the correct article and fill in the blank of the given sentence.  
I've -----one rupee coin but I can't give it to you.
- A) An  
B) A  
C) The  
D) No article
- 6 Choose the correct question tag.  
He is a voracious reader,-----
- A) Wouldn't it?  
B) Isn't it?  
C) Isn't he?  
D) Doesn't he?
- 7 The meeting will be held -----9.a.m. and 4 p.m.
- A) From  
B) Approximately  
C) Between  
D) Of
- 8 Choose the right option for the given definition.  
A person who looks upon the bright side of life
- A) Sceptic  
B) Pessimist  
C) Optimist  
D) Pacifist
- 9 Choose the correct option to complete a part of the dialogue.
- A) Loosen your tie  
B) Stick your boot in  
C) Keep your cap on  
D) pull your socks up
- 10 Choose the correct meaning of the phrase "Turn down"
- A) To remove  
B) To reject  
C) To reach  
D) To lose
- 11 An elevator descent into a mine shaft at the rate of 12 m / min. if the descend starts from 12 m above the ground level, how long will it take to reach -468 m?
- A) 30 mins  
B) 40 mins  
C) 50 mins  
D) 60 mins
- 12 The value of  $\left(1 - \frac{1}{2}\right)\left(1 - \frac{1}{3}\right)\left(1 - \frac{1}{4}\right) \dots \dots \left(1 - \frac{1}{100}\right) = \underline{\hspace{2cm}}$ .
- A)  $\frac{100}{101}$   
B)  $\frac{1}{9}$   
C)  $\frac{1}{100}$   
D)  $\frac{1}{2}$

13 If the mean of 18, 35, 27,  $x+1$  and 23 is 29, then the value of  $x$  is \_\_\_\_.

- A) 21  
 B) 42  
 C) 34  
 D) 41

14 Shweta has digit cards 2, 3 and 4. She makes 2-digit number using each card only once. The probability that a 2-digit number chosen at random is divisible by 2 is

- A)  $\frac{2}{3}$   
 B)  $\frac{1}{3}$   
 C)  $\frac{1}{2}$   
 D)  $\frac{1}{4}$

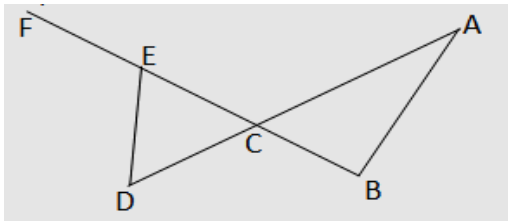
15 If  $\frac{3x}{1 + \frac{1}{1 + \frac{2x}{1 - 2x}}} = 1$  then find the value of  $x$ .

- A) 1  
 B)  $\frac{5}{2}$   
 C)  $\frac{2}{5}$   
 D)  $\frac{2}{3}$

16 If the sum of two third of a number, half of the same number and one seventh of same number is subtracted from double the number is, the result is 29. The number is

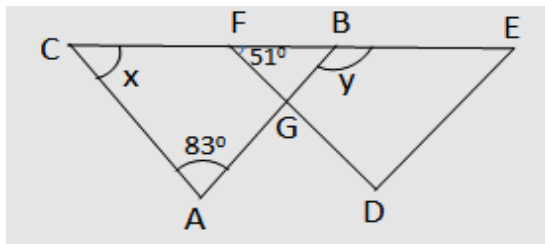
- A) 39  
 B) 42  
 C) 47  
 D) 25

17 In the given figure,  $CE = CD$ , find  $\angle DEF$  when  $\angle B = x$  and  $\angle A = 40^\circ - x$



- A)  $160^\circ$   
 B)  $150^\circ$   
 C)  $140^\circ$   
 D)  $130^\circ$

18 In the given figure, ABC and DEF are two triangles. CA is parallel to FD and CFBE is a straight line. Find the value of  $x+y$ .



- A)  $134^\circ$   
 B)  $148^\circ$   
 C)  $176^\circ$   
 D)  $185^\circ$

19 Aryan wants to plant a flower on the ground in the form of a rhombus. The diagonals of the rhombus measures 16 cm and 30 cm. Find the perimeter of the field.

- A) 63 cm  
 B) 57 cm  
 C) 68 cm  
 D) 72 cm

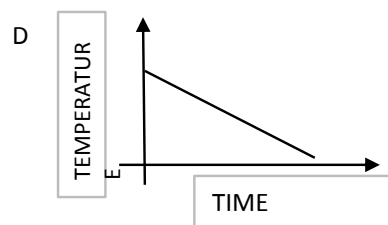
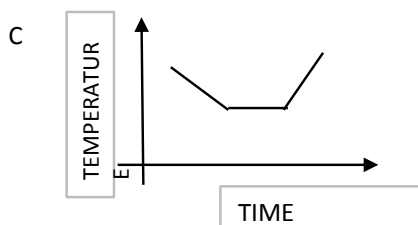
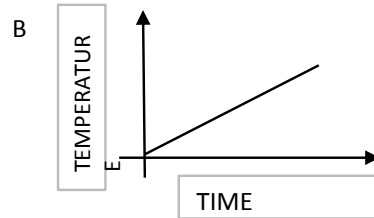
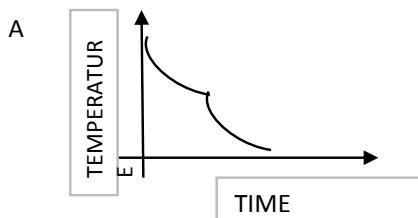
20 Simplify  $(3x + 2y - 9)(2x - 6y + 4) - [(2+2x-6y)(2y + 3x - 9)]$

- A)  $6x + 4y - 18$   
 B)  $3x + 4y - 9$   
 C)  $3x + 2y - 9$   
 D)  $6x - 4y + 18$

21 An experiment was demonstrated by using a submerged water plant called Hydrilla .10 gm Calcium bicarbonate is added to the water in which Hydrilla was in the experimental set-up.What would happen if they are getting enough sunlight?

- A) Calcium bicarbonate absorbs oxygen,so oxygen level is decreased  
 B) As Carbon di oxide released by Calcium bi carbonate is more,evolution of oxygen decreases.  
 C) Bicarbonate releases more Oxygen which hinders the process of photosynthesis and Hydrilla will die  
 D) Due to more photosynthesis , more oxygen is evolved to some extent

22 100 ml of water is taken in each of two beakers A and B.The temperature of water in beaker A is at 90 degree Celcius and of beaker B is at room temperature.Which one of the graphs below show the correct change in temperature over time when the water in the two beakers are mixed?



23 Kartik took a turmeric paper and tried to prepare a greeting card to his teacher's day with the help of cotton buds dipped in solutions A and B.The pictures drawn with solution A was red while one drawn with solution B was not visible.Solution A and B could be respectively

- A Vinegar and lime water  
 B lime water and vinegar  
 C common salt solution and sodium carbonate  
 D Tamarind juice and tomato juice

24 Pinki kept a copper spoon in mango pickle.After some days,she saw some black deposit on the spoon and tasted bitter.What could be the possible reason for this?

- A A chemical change occured due to reaction between copper and acid present in the pickle  
 B A physical change occurred due to reaction between copper and oil present in the pickle  
 C A chemical change occured due to reaction between copper and oil present in the pickle  
 D A physical change occurred due to reaction between copper and salt present in the pickle

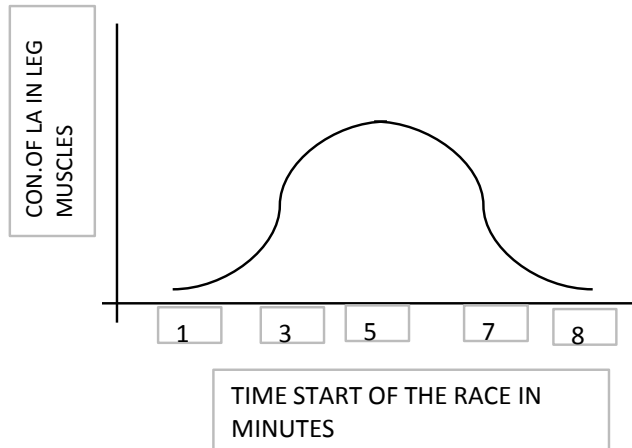
25 The elephant is well adapted to live in dense forests.Which function of its adaptations is incorrectly described?

Adaptation	Function
A Long tusk	To tear the bark of trees
B Large ears	to hear soft sound and keep cool
C Dark grey body	To keep it warm in cool conditions of tropical rain forests
D Long trunk	To pick food and for strong sense of smell

26 When high speed wind blows , the roof of a hut thatched with grass is blown away.The reason being High speed wind creates a high pressure zone

- A above and below the roof  
 B and high pressure zone below the roof  
 C High speed wind creates a low pressure zone below and high pressure zone above the roof  
 D High speed wind creates a no pressure change but exerts force on the roof

- 27 100 gm of soil samples A and B were taken in similar vessels and 100 ml of water was poured into each at the same time. The time taken for percolation in A was 25 minutes and for B was 10 minutes. Which of the following is the correct inference?
- A The percolation rate of A is 25 ml/minute and it is garden soil      B The percolation rate of B is 25 ml/minute and it is desert soil
- C The percolation rate of A is 4 ml/minute and it is garden soil      D The percolation rate of B is 4 ml/minute and it is desert soil
- 28 Rahul participated in the 800 m running race and the changes in the concentration of lactic acid in the muscles of Rahul is depicted in the graph given below. At what time did Rahul finish the race?



- A 3 minutes      B 5 minutes  
C 7 minutes      D 8 minutes
- 29 Which of the following show the flow of oxygenated blood from the heart to the body parts?
- |   |  |
|---|--|
| A | Left atrium → left ventricle → Aorta → Body organs       |
| B | Pulmonary vein → left ventricle → Aorta → Body organs    |
| C | Pulmonary vein → right ventricle → Aorta → Body organs   |
| D | Pulmonary artery → right ventricle → Aorta → Body organs |
- 30 Rupa collected two varieties of flowers A and B. The characteristic features of the two are given below
- | Features of A                   | Features of B                      |
|---------------------------------|------------------------------------|
| 1) Light weight pollen grains   | sticky spiny pollen grains         |
| 2) Huge number of pollen grains | Nectar at the bottom of the flower |
| 3) Feathery and branched stigma | Colourful and attractive petals    |
- Identify the flower pollinated by wind and insects
- |   |  |
|---|--|
| A | Flower A → Insect pollinated; Flower B → wind pollinated             |
| B | Flower A & B are insect pollinated but by different types of insects |
| C | Flower A → wind pollinated; Flower B → insect pollinated             |
| D | Flower A & B are pollinated only by wind                             |
- 31 A car started at 22:30 hours and reaches its destination point at 1:30 hours. The initial odometer reading was 35895 km. The final odometer reading was 36030 km. What is the speed of the car?
- A 85 km/hr      B 135 km/hr  
C 45 km/hr      D 60 km/hr
- 32 Keshu's mother bought serial garland of LED bulbs during Diwali containing 50 bulbs. The 49th bulb broke while Keshu was arranging it. Which among the following could be the correct inference?
- A All 48 bulbs before the 49th bulb will glow      B Only 50th bulb will glow  
C No bulb will glow      D All 48 bulbs before the 49th bulb and the 50th bulb will glow
- 33 A car driver is reversing his car at a speed of  $2.5 \text{ ms}^{-1}$ . The rear view mirror of the car is a plane mirror. The driver sees in his rear view mirror, the image of a tree behind his car. The speed at which the image of the tree appears to approach the driver will be
- A  $10 \text{ ms}^{-1}$       B  $5 \text{ ms}^{-1}$   
C  $25 \text{ ms}^{-1}$       D  $5.5 \text{ ms}^{-1}$

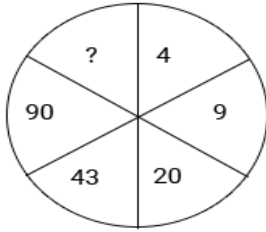




61 A man walks 5 km toward south and then turns to the right. After walking 3 km he turns to the left and walks 5 km. Now in which direction is he from the starting place?

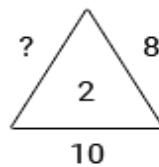
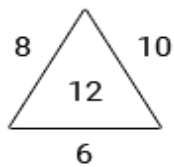
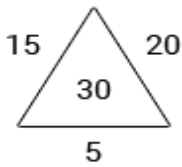
- A West  
 B South  
 C North-East  
 D South-West

62 Insert the missing number in the following



- A 185  
 B 126  
 C 239  
 D 145

63 Insert the missing number in the following



- A 4  
 B 6  
 C 22  
 D 12

64 How many pairs of letters are there in the word 'CASTRAPHONE' which have as many letters between them in the word as in the alphabet?

- A ONE  
 B TWO  
 C THREE  
 D FOUR

65 If the letters in the word RUTHENIUM are rearranged in the alphabetical order, which letter will be second to the right of middle letter?

- A I  
 B T  
 C N  
 D R

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.

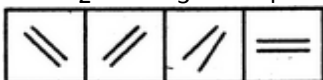
1      2      3      4



- 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.

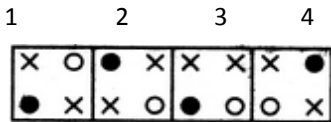
1      2      3      4



- A 1  
 B 2  
 C 3  
 D 4

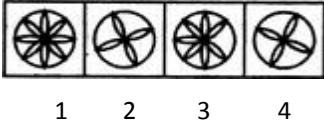


68 Choose the figure which is different from the rest.



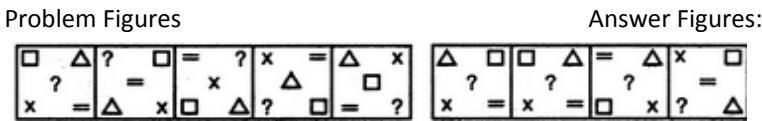
- |     |     |
|-----|-----|
| A 1 | B 2 |
| C 3 | D 4 |

69 Choose the figure which is different from the rest.



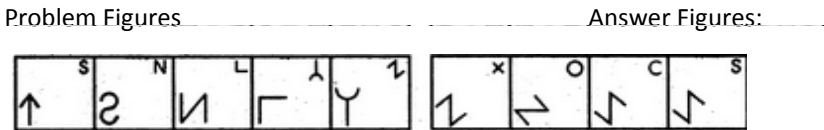
- |     |     |
|-----|-----|
| A 1 | B 2 |
| C 3 | D 4 |

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



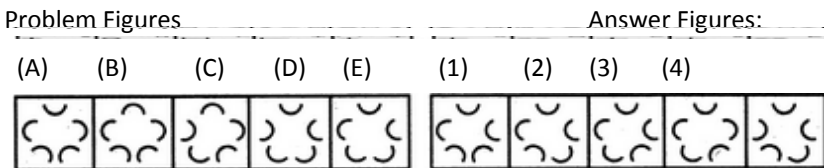
- |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| (A) | (B) | (C) | (D) | (E) | (1) | (2) | (3) | (4) |
| A 1 |     |     |     | B 2 |     |     |     |     |
| C 3 |     |     |     | D 4 |     |     |     |     |

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



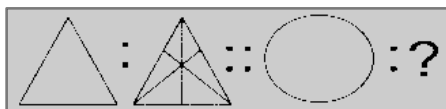
- |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| (A) | (B) | (C) | (D) | (E) | (1) | (2) | (3) | (4) |
| A 1 |     |     |     | B 2 |     |     |     |     |
| C 3 |     |     |     | D 4 |     |     |     |     |

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

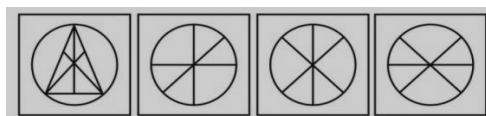


- |     |     |
|-----|-----|
| A 1 | B 2 |
| C 3 | D 4 |

73 Question Figures

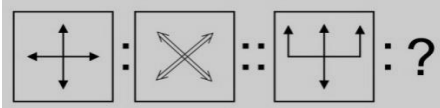


Answer Figures

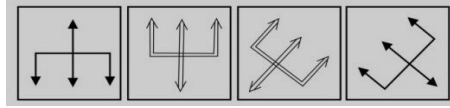


- |     |     |     |     |     |
|-----|-----|-----|-----|-----|
| A 1 | (1) | (2) | (3) | (4) |
| C 3 | B 2 |     |     |     |
|     | D 4 |     |     |     |

74 Question Figures



Answer Figures



- (1)      (2)      (3)      (4)

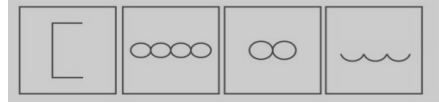
- A 1  
C 3

- B 2  
D 4

75 Question Figures



Answer Figures



- (1)      (2)      (3)      (4)

- A 1  
C 3

- B 2  
D 4

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Rough Page

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**AEES EXCELLENCE EXAMINATION 2019**

**CLASS VII**

**ANSWER KEY**

Q.No.	Answer
1	B
2	C
3	C
4	A
5	B
6	C
7	C
8	C
9	D
10	B
11	B
12	C
13	D
14	A
15	C
16	B
17	A
18	D
19	C
20	A
21	D
22	A
23	B
24	A
25	C
26	B
27	C
28	B
29	A
30	C
31	C
32	C
33	B
34	D
35	C
36	A
37	B
38	B
39	D

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