SMART SOCIETY INTERNATIONAL MATHEMATICS OLYMPIAD (SSIMO)

Organized by

Department of Basic Science and Humanities
INSTITUTE OF ENGINEERING & MANAGEMENT,
IEM-UEM GROUP and SMART SOCIETY, USA

III CLASS

TOTAL QUESTIONS: 35

DURATION: 1 HOUR

INSTRUCTIONS TO THE CANDIDATES:

1. The following question paper is divided into 3 sections
   a) Section A (Logical Reasoning) :10 Questions
   b) Section B (Mathematical reasoning) :10 Questions
   c) Section C (Achiever's Level Mathematics): 15 Questions
2. Each question of section A carries 2 mark. Each question of section B carries 2 marks and each question of section C carries 4 marks.
3. All questions are compulsory. There is no negative marking. Use of calculator is not permitted.
4. There is only one correct answer. Choose only ONE option.
5. Tick the correct answer in the question paper.
6. Rough work should be done in the blank space provided in booklet.
7. Please fill in your personal details in the space provided below.

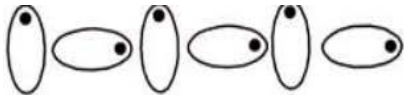NAME: ....

SCHOOL NAME: ....

CONTACT DETAILS OF GUARDIAN: ....

LOGICAL REASONING

1. Find the odd one out.

   a) River   b) Pond

   c) Lake   d) Rain

2. Look at this pattern of shapes.

   Which of these shows the same kind of pattern?

   a) ↑→↑→↑→   b) ↑↓↓↑↑↓

   c) ↑→↓←↑→   d) ↑→↓→↑→
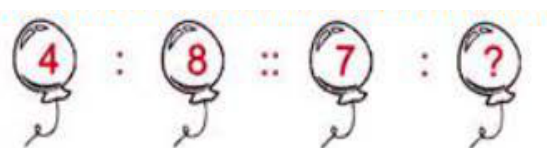
3. If Ball'is called 'Cap', 'Cap'is called 'Pencil, 'Pencil'is called Eraser', 'Eraser is called 'Bag', then Rohan will wear _____ in sunlight.

   a) Cap   b) Eraser

   c) Pencil   d) Bag
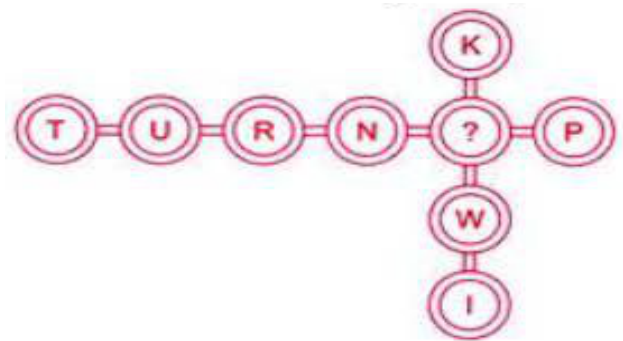
4. If : then :?

   a)   b)

   c)   d)

5. There is a certain relationship between the pair of numbers on either side of : : Identify the relationship of given pair and find the missing term.

   a) 10   b) 14

   c) 16   d) 21

6. Which letter from the given options will replace the question mark (?) to form one name of vegetable and one name of fruit?

   a) A   b) I

   c) L   d) E

7. Identify the category of the word formed after arranging the given letters. A M C H R

   a) Vegetable   b) Fruit

   c) Month   d) Flower

8. If teddy F is removed from the given arrangement, than which teddy is 4th from the right end?

   a) C   b) D

   c) B   d) E

9. Find the missing number in the given number series. 125 105 85 65 45?

   a) 44   b) 45

   c) 24   d) 46

10. If the code for 'RIGHT is 'SJHIU', then what is the code for 'FINDS'?

    a) GJOET   b) GINET

    c) GIOET   d) GJMEU

MATHEMATICAL REASONING

11. The place value of 8 in 9834 is _____ .
    a) 8x1   b) 8x 10
    c) 8 x 100   d) 8 x 1000

12. The weight of an apple is best measured in _____ .
    a) Inches   b) Millimetres
    c) Litres   d) Grams

13. If a month ends on a Wednesday, on what day does the next month begin?
    a) Thursday
    b) Monday
    c) Wednesday
    d) Tuesday

14. Which of the given shapes represents a triangle?

    a)   b)

    c)   d)

15. What is the another way to represent 6,204 ?

    a) 6+2+0+4
    b) 60+20+10+4
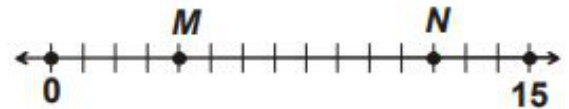   c) 600+200+100+4
    d) 6,000+200+4

16. I am greater than 260 but less than 290. When you add my first and third digits you will get 9. Which number am I ?

    a) 277   b) 257
    c) 279   d) 269

17. Which one of the following is true ?
    a) $1049 = 100 + 49$
    b) $6745 = 7000 - 255$
    c) $8465 = 8000 + 400 + 56$
    d) $5489 = 2000 - 489$

18. Which is closest distance from point M to point N on the number line?

    a) 5 units   b) 8 units
    c) 7 units   d) 6 units

19. Which letter cannot be folded in half so that its sides coincide?
    a) A   b) O
    c) L   d) U

20. What is the missing number that makes the number sentence true ?
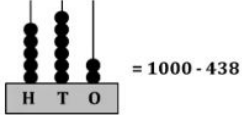
    $\boxed{?} + 192 + 78 = 330$

    a) 60   b) 70
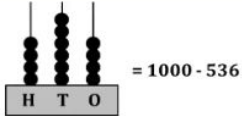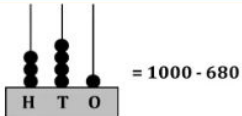   c) 58   d) 59

ACHIEVERS SECTION

21.

$$\triangle \times \triangle = \star$$
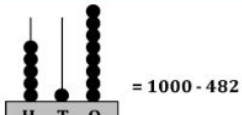
$$\triangle + \triangle + \triangle + \triangle = \star$$

What number does $\star$ represent?

a) 4 b) 16
c) 25 d) 36

22. Which of the following is the INCORRECT match?

a) = 1000 - 438

b) = 1000 - 536

c) = 1000 - 680

d) = 1000 - 482

23. There are 4 tables. Ajay put 6 plates on each table. What is the total number of plates Ajay put on the tables?

a) 12 b) 18
c) 6 d) 24

24. Chalien wants to change her 10 rupees note by 50 paise coins. How many coins will she get?

a) 30 b) 20
c) 40 d) 50

25. 650 paise + Rs. 3.50 = _____

a) Rs. 4.10 b) Rs. 11
c) Rs. 10 d) Rs. 9

26. Which of the following is different from other three?

a) kilometre b) metre
c) centimetre d) Millilitre

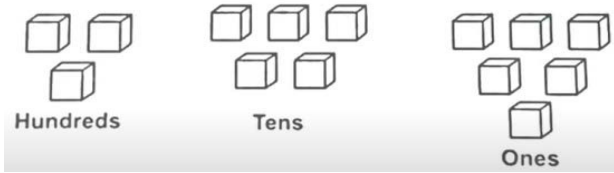27. How many two digit numbers less than 50 are there?

a) 20 b) 30
c) 40 d) 50

28. The given chart shows the number of eggs produced on a farm in the first five months of the year.

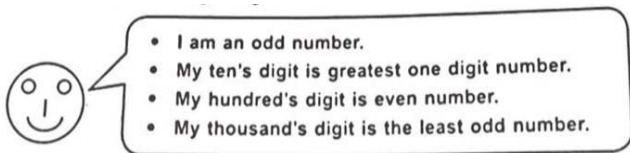| Month	Number of eggs produced
January	5961
February	4228
March	5879
April	4907
May	5164

Which of the following statements is CORRECT?

a) The number of eggs produced in April were less than in February.

b) The number of eggs produced in May were less than in March.

c) The number of eggs produced in January were less than in March.

d) The number of eggs produced in May were less than in February.

29. If represents 1, then write the number represented by the given diagram.

a) 356   b) 653

c) 123   d) 300

30. Identify the number using the given clues.

- I am an odd number.
- My ten's digit is greatest one digit number.
- My hundred's digit is even number.
- My thousand's digit is the least odd number.

a) 2497   b) 1495

c) 2698   d) 2785

31. Luisa's school starts at 9 am. Luisa arrived at school 80 minutes late. What time did she arrive?

a) 9:20am   b) 9:50am

c) 10:20am   d) 10:50 am

32. The given pictograph shows the number of hair clips 5 friends have. Study the picto carefully and answer the following question.
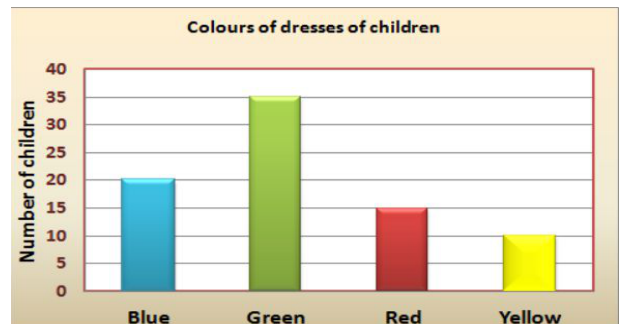

| Priya | Ekta | Riya | Pihu | Pooja |

Each stands for 6 hair clips.

What is the difference between the number of hair clips Priya and Pihu have?

a) 5   b) 10

c) 6   d) 15

33.

If 🌹 + 🌹 + 🌹 + 🌹 + 🌹 = 35, 🌹 × 🌷 = 21 and 🌷 + 🌼 = 11, then 🌼 = ?

a) 9   b) 8

c) 7   d) 6

34. The graph below shows the colours of dresses of children in a group. Study it carefully and answer the question.

How many children are there in the group?

a) 80   b) 100

c) 70   d) 60

35. A cricket match started at 6 p.m. The playing time was 4 hours and 15 minutes. In between there were 2 intervals of 10 minutes each.

What time did the game end?

a) 10 pm   b) 10:15 pm

c) 9:45 pm   d) 10:35 pm