SC**O**RE

Sri Chaitanya Outstanding Achiever Reward Examination

6th OCTOBER 2024

For Class **5th, 6th, 7th, 8th, 9th & 10th**

PREVIOUS YEAR PAPER
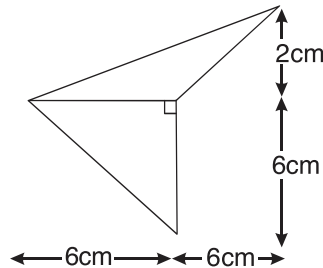
CLASS 6th

Sri Chaitanya

MATHS

1.   How many natural numbers less than 20 can be written as sum of two distinct prime numbers?

     A) 10   B) 11

     C) 12   D) 13

2.   The area of the figure is

     A) $24\,cm^2$ B) $22\,cm^2$

     C) $25\,cm^2$ D) $26\,cm^2$

3.   To fill a square of side 9 cm how many square of side 3 mm are required to cover it.

     A) 90 squares   B) 900 squares

     C) 9000 squares   D) 9 squares

4.   How many prime numbers exist between 20 & 60 and what is the average of these prime numbers?

     A) 7, 41.5   B) 9, 40.33

     C) 8, 39.5   D) 10, 42.33

5.   Riu has hidden a Smiley behind some of the grey boxes. The numbers state how many Smileys there are in the neighbouring boxes. Two boxes are neighbouring if they have one side or one corner in common.

     How many Smileys has Riu hidden?

     A) 4   B) 5

     C) 7   D) 6

6.   Which one of the following can't be square of natural number?
     A) 30976   B) 75625
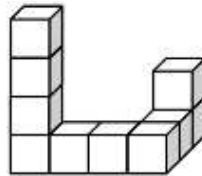   C) 28561   D) 143642

7.   Saksham glues 10 cubes together so that the following object is formed:

     He paints all of it, even the bottom.

     How many cubes then have exactly 4 faces coloured in?

     A) 6   B) 7
     C) 8   D) 9

8.   In a camp there was a food for 1000 soldiers for one month. After 10 days 1000 more
     soldiers joined the garrison. How long would the soldiers be able to carry on with the
     remaining food?
     A) 25 days   B) 20 days
     C) 15 days   D) 10 days

9.   The greatest number that will divide 455, 582 & 710 leaving remainders 14, 15 & 17
     will be
     A) 7   B) 63
     C) 21   D) None of these

10. Shivam wants to cut a piece of wire into 9 equally long pieces and makes marks where
     he needs to make his cuts. Molina wants to cut the same piece of wire into 8 equally
     long pieces and makes marks where she needs to make her cuts. Gigu cuts the piece of
     wire at every mark. How many pieces does Gigu get?
     A) 15   B) 16

     C) 17   D) 72

11. Let $P = 7 \times 11 \times 13 + 13$ & $Q = 7 \times 6 \times 5 \times 4 \times 3 \times 2 + 5$ then
     A) P is Prime, Q is Composite   B) P is Composite Q is Prime
     C) P is Composite Q is Composite   D) P is Prime Q is Prime

12. When a number is increased by 8, it is divisible by 35. What is the remainder when the
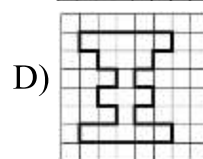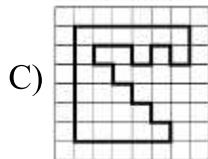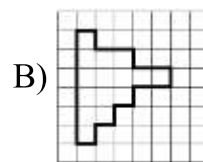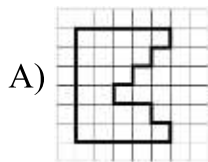   same number is divided by 5?
     A) 2   B) 4
     C) 3   D) 0

13. X is the sum of factors of 84. Then the value of x is
    A) 222   B) 223
    C) 224   D) 225

14. The sum of $1 - 2 + 3 - 4 + 5 - 6 + \ldots\ldots\ldots + 19 - 20$
    A) −6   B) −7
    C) −8   D) −10

15. A 4 digit number of the form ABCD where A, B, C & D are its digits is such that ABCD < 2000 and is expressed as power of 2 then $A + B + C + D = ?$
    A) 7   B) 8
    C) 9   D) 10

16. Which of the following figure has largest parameter?

    A)   B)

    C)   D)

17. Which of the following is correct for all integers consider x, y, z as integers
    A) If $x < y \Rightarrow xz < yz$ B) If $x < y \Rightarrow xz > yz$
    C) If $x = y \Rightarrow xy = zx$ D) None of these

18. There are 86,400 prints in 1 hour of time. How many prints are there per second?
    A) 25 prints   B) 24 prints
    C) 864 prints   D) 1440 prints

19. Consider a class of 40 students whose average weight is 40 kgs. m new students join this class whose average weight is n kgs. If it is known that m + n = 50, what is the maximum possible average weight of class now?
    A) 40.18 kgs   B) 40.56 kgs
    C) 40.67 kgs   D) 40.49 kgs

20. How many factors of 1080 are perfect square ?
    A) 4   B) 6
    C) 3   D) 5

21.   Sarvesh Mehtani, IIT-JEE AIR-1, 2017, needs 3 pieces to build this shape. Each piece is made out of 4, equally sized cubes of the same colour as shown here. What is the shape of the white piece?

A)   B)

C)   D)

22.   Gunveen has placed numbers in two of the nine cells (see diagram). She wants to place the numbers 1, 2, 3 in every row and every column exactly once. How big is the sum of the two numbers in the grey cells?

A) 2   B) 3

C) 4   D) 5

23.   There are 20 girls and boys in total in a class. Always two students share a desk so that one third of the boys share a table with a girl and half the girls share a desk with a boy. How many boys are in this class?

A) 9   B) 12

C) 15   D) 16

24.   Natural numbers are written on a board, of which no two are the same. The product of the two smallest numbers is 16, the product of the two biggest is 225. What is the sum of all numbers written on the board?

A) 243   B) 42

C) 44   D) 58

25. Gurnoor wants to insert nine numbers into the 3 × 3 table so that the sum of the numbers in two adjacent cells (with a common side) is always the same. She has already written two numbers into the table. How big is the sum of all nine numbers?

    A) 17   B) 20

    C) 21   D) 22

26. Four brothers have eaten 11 biscuits altogether. Everyone has eaten at least one biscuit but all of them have eaten a different amount of biscuits. Three of the brothers ate 9 biscuits altogether, where one of them got exactly 3 biscuits.
How many biscuits did the boy who had the most biscuits eat?

    A) 3   B) 4

    C) 5   D) 6

27. Tarush, INMO 2017, AIR-1 made two 3-digit numbers from the digits 2, 4, 5, 6, 8, 9 Each of these digits was used only once. Afterwards he added the numbers together. What is the largest answer that he could have got?

    A) 1940   B) 1528

    C) 1789   D) 1816

28. Harsh Taya, a student of IIT Delhi CSE, thought of a number. He multiplied this number with itself, added 1, multiplied the result by 10, added 3 and multiplied the total by 4. He arrived at 6812. Which number had Harsh thought of to start with?

    A) 11   B) 13

    C) 14   D) 15

29. After simplication the expression will be equal to $\dfrac{1}{2} \times \dfrac{2}{3} \div \dfrac{7}{3} + \dfrac{1}{2}$

    A) $\dfrac{9}{14}$ B) $\dfrac{11}{14}$

    C) $\dfrac{13}{14}$ D) None of these

30. HCF of 396 and 1080 is

    A) 32   B) 34

    C) 36   D) 38

IQ

SECTION 1 (Maximum Marks: 90)

- This section contains **THIRTY** questions.
- Each question has **FOUR** options (a), (b), (c) and (d). **ONLY ONE** of these four options is correct.
- For each question, darken the bubble corresponding to the correct option in the ORS.
- For each question, marks will be awarded in one of the following categories:
  Full Marks   :   +3   If only the bubble corresponding to the correct option is darkened.
  Zero Marks   :   0, In all other cases

31.   Find the ? in the sequence

$$5, 21, 69, 213, 645, ?$$

A) 1935   B) 1815

C) 1941   D) 2581

32.   Fill the blanks
bof _ cb _ fcc _ ofc _ bo _ cc
A) foccf   B) foccb
C) cofcf   D) cobcf

33.   Find the number of triangles in the figure.
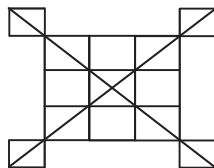
A) 20   B) 24

C) 28   D) 32

34.   If 10th August 2001 was Tuesday, which day did fall on 15th September 2002 .
A) Thursday   B) Wednesday
C) Saturday   D) Sunday

35.   In the given dice, which number will be opposite to 4 ?
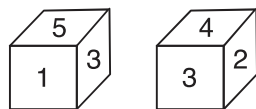
A) 2   B) 1

C) 5   D) 6

36. In a queue, Harsh is ninth from the back. Saksham's place is eight from the front. Vasu is standing between the two. What could be the minimum number of boys standing in the queue?
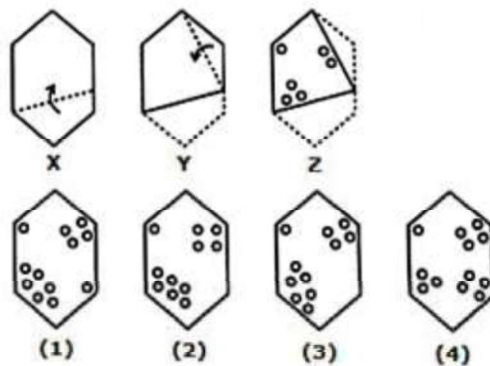
A) 8   B) 9

C) 10   D) 14

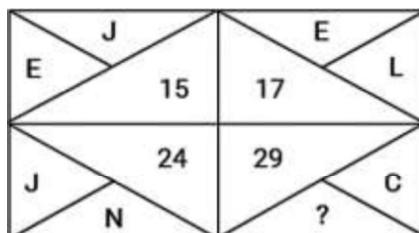37. Which of the answer figures is exactly the water image of the given figure?
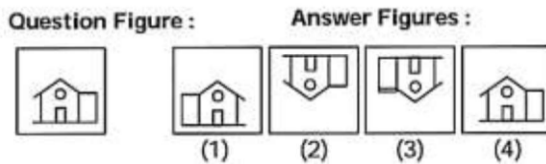
A) 1   B) 2

C) 3   D) 4

38. Choose a figure which would most closely resemble the unfolded form of Figure (Z).

A) 1   B) 2
C) 3   D) 4

39. In the given figure, what should replace "?"

A) M   B) Z
C) Q   D) S

40. Two numbers are respectively 26% and 5% more than a third. What percentage is the first of the second?
A) 120%   B) 100%
C) 80%   D) 125%

41. M is East of D. K is West of F and F is South of D. In which direction is M from K?

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

42. If the first day of a year, which is not a leap year is Sunday, which day will fall on the last day of that year?
A) Friday   B) Sunday
C) Monday   D) Tuesday

43. In a certain code language 'tree is very beautiful' is written as ' ka na da ta' and 'this is strong tree' is written as 'na pa sa ka'. How is 'beautiful' written in that code language?

A) da   B) ta
C) sa   D) Data inadequate

44. How many times in a day both hands of clock overlap each other?
A) 24 times   B) 20 times
C) 21 times   D) 22 times

45. In the following questions, the symbols ©, @, #, $ and ☆ are used in following meaning -
'A @ B' means A is either greater than or equal to B.
'A $ B' means A is either smaller than or equal to B.
'A # B' A is neither greater than nor smaller than B.
'A ☆ B' A is greater than B.
'A © B' A is smaller than B.

Statements M $ R, R © P, P # Q
Conclusions   I.   Q ☆ M
                    II.   R © Q

A) If Only conclusion I true.   B) If Only conclusion II true.
C) If either conclusion I & II true.   D) If both I & II conclusion is true.

46.   Which of the shapes **<u>cannot</u>** be split into two triangles using a single straight line?

A)

B)

C)

D)
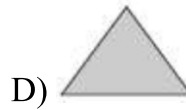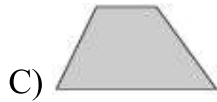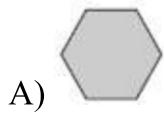
47.   Grandma has baked a cake for her grandchildren. She does not know if today 3, 5 or all 6 grandchildren will come. Into how many pieces does she have to cut the cake in order to be sure that all grandchildren present will get the same amount of cake?
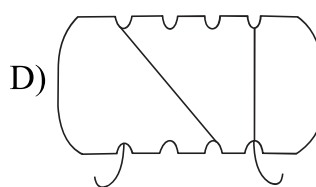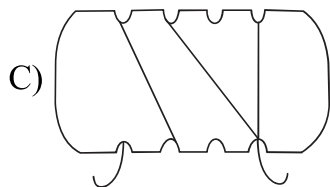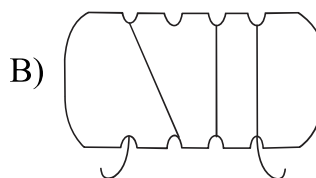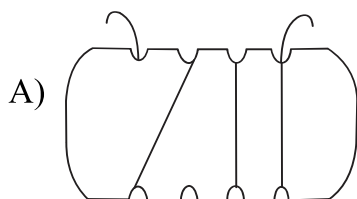
A) 12   B) 15

C) 18   D) 30

48.   Nitesh wraps a band around a piece of wood. He then turns the wood around as pictured. What does the wood now look like?

A)

B)

C)

D)
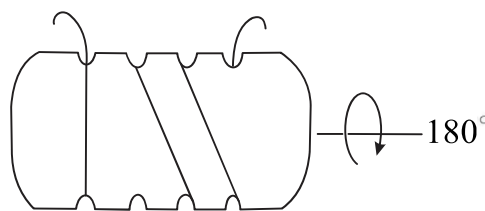
49.   A square is split into 4 smaller squares. All small squares should either be coloured in white or black. How many ways are there to colour the big square? (patterns are the same if they can be – as shown in the picture – transformed into one another by rotation.)
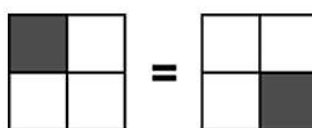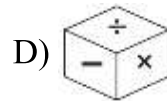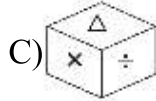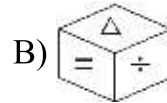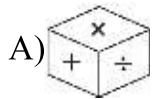

A) 5   B) 6   C) 7   D) 8

50. Fold this open dice & select the correct option?

A)

B)

C)

D)
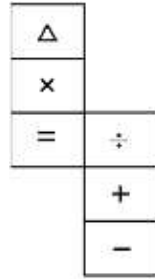
51. In the question, a piece of paper is folded and cut as shown below in the questions figures. From the given option figures, which one indicates how it will appear when opened.

A)

B)

C)

D)
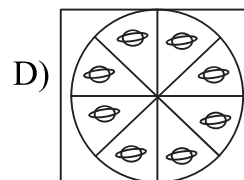
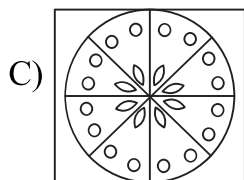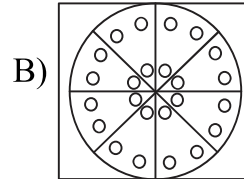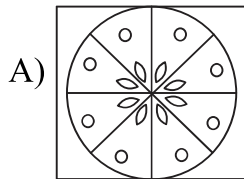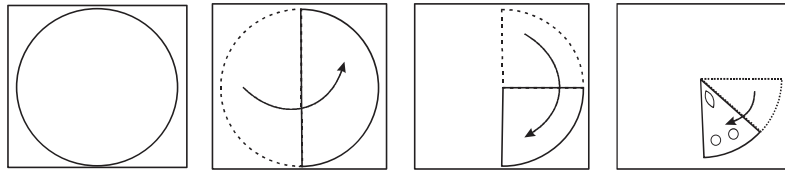52. A, B and C can do a piece of work in 10,12 and 15 days respectively, they start working together but C leaves after working 3 days and B leaves, 4 days before the completion of work. In how many days the work was finished?

A) $6\frac{2}{11}$ days

B) 7 days

C) $7\frac{2}{15}$ days

D) $6\frac{2}{5}$

53. Gita is 314 days elder to Suman, while Sapna is 70 weeks elder to Gita. If Sapna was born on Thursday, then on which day Suman was born?
   A) Friday   B) Tuesday
   C) Saturday   D) Wednesday

54. In a certain code MEAN is written as '8964' and NOBLE is written as '47529'. How is LOAM written in that code?
   A) 2768   B) 2758
   C) 2968   D) 2468

55. **Statements:**   All shirts are hats.
                        No hat is suit.
                        Some rings are suits.
                        All rings are bangles.
   Conclusions: **I.** Some rings are hats.
                        II. Some bangles are suits.
                        III. No ring is hat.
   A) Only I follows   B) Only II follows
   C) Only III follows   D) Only either I or III and II follow

56. One morning at sunrise, Suresh was standing facing a pole. The shadow of the pole fell exactly to his right. Which direction was he facing?
   A) East   B) West
   C) South   D) Data is inadequate

57. Count the number of squares in the following figure?
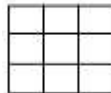
   A) 18   B) 14
   C) 10   D) 9

58. A gentleman pointing to Chidvilas said, "His only brother is the father of my daughter's father". How in the gentleman related to Chidvilas?
   A) Uncle   B) Grandfather
   C) Father   D) Brother in Law

59. Which number will replace "?" in given series?
   30, 42, 56, 72, ?
   A) 88   B) 90
   C) 92   D) 94

60. In a certain code, if "ABHI" is written as 20 and "RAM" is written as 32, then "SCORE" will be written as?

    A) 50   B) 60

    C) 62   D) 52

SPACE FOR ROUGH WORK

Sri Chaitanya

Q. NO.	CODE-A	Q. NO.	CODE-A	Q. NO.	CODE-A	Q. NO.	CODE-A
1	C	16	C	31	C	46	A
2	A	17	D	32	D	47	D
3	B	18	B	33	D	48	B
4	B	19	B	34	A	49	A
5	B	20	A	35	B	50	C
6	D	21	D	36	B	51	C
7	C	22	C	37	B	52	A
8	D	23	B	38	C	53	D
9	B	24	C	39	B	54	A
10	B	25	D	40	A	55	D
11	C	26	C	41	C	56	C
12	A	27	D	42	B	57	B
13	C	28	B	43	D	58	A
14	D	29	A	44	D	59	B
15	A	30	C	45	D	60	B