

**KENDRIYA VIDYALAYA SANGATHAN ,REGIONAL OFFICE, LUCKNOW**  
**MID TERM EXAMINATION 2023-24**

**SUBJECT : MATHEMATICS**  
**CLASS: VII**

**MAX. MARKS : 60**  
**TIME: 2 Hr.30 Min**

**GENERAL INSTRUCTIONS:**

- 1.All questions are compulsory.
- 2.The question paper consists of 30 questions divided into 4 sections A, B, C, D.
- 3.Section A comprises of 15 questions of 1 mark each. Section B comprises of 5 questions of 2 marks each. Section C comprises of 5 questions of 3 marks each. Section D comprises of 5 questions of 4 marks each.
- 4.Internal choices are provided in 2 questions of section B, 2 questions of section C and 2 questions of section D.
- 5.Calculators are not permitted.

**SECTION A**

1. Next three consecutive number in the pattern 11, 8, 5, 2,..... are  
a) 0, -3, -6      b) -1, -5, -8      c) -2, -5, -8      d) -1, -4, -7
2. Identity element of multiplication is  
a) 0      b) 1      c) -1      d) 2
3. The value of  $235.4 \div 100 =$   
a) 23500      b) 23.54      c) 2.354      d) 0.2354
4. The picture interprets



- (a)  $\frac{1}{4} \div 3$       b)  $3 \times \frac{1}{4}$       c)  $\frac{3}{4} \times 3$       d)  $3 \div \frac{1}{4}$
5. The perimeter of an equilateral triangle of the side 3.5 cm is equal to  
a) 6.5cm      b) 10.5cm      c) 7cm      d) 16cm
  6. The mode of the given set of numbers 1, 1, 2, 4, 4, 2, 2, 3, 3, 2 is  
a) 1      b) 2      c) 3      d) 4
  7. The range of the data 12,25,11,14,13,14,13,15,18,20 is  
a)12      b) 14      c) 16      d) 18
  8. Write the Simple equation for the statement “ The sum of three times x and 10 is 13”  
a)  $3x + 10 = 13$       b)  $3x - 10 = 13$       c)  $3x + 13 = 10$       d) None
  9. The solution of the equation  $x + 3 = 0$  is  
a) -3      b) 3      c) 0      d) 1
  10. If the complement of an angle is  $79^\circ$ , then the angle will be of  
a)  $1^\circ$       b)  $79^\circ$       c)  $11^\circ$       d)  $101^\circ$
  11. If two lines are parallel and a transversal intersect them, then each pair of corresponding angles are  
a)  $90^\circ$       b)  $180^\circ$       c) equal      d) none of these
  12. Which is the longest side of a right triangle?  
a) Perpendicular      b) Base      c) Hypotenuse      d) none of these
  13. Two of the angles of a triangle are  $83^\circ, 55^\circ$ . Find the measure of third angle.  
a)  $45^\circ$       b)  $40^\circ$       c)  $41^\circ$       d)  $42^\circ$
  14. 225% is equal to  
a)9:4      b) 4:9      c) 3:2      d) 2:3
  15. A skirt bought for Rs 250 and sold at Rs150 Find profit or loss percent.

a) 25% profit

b) 40% loss

c) 45% profit

d) 12% loss

**SECTION B**

16. Out of 15,000 voters, 60% voted. Find the percentage of voters who did not vote. How many Voters actually did not vote?

OR

I bought a T.V. for Rs 10,000 and sold it at a profit of 20%. How much money did I get for it?

17. An air conditioner cools a room by 4°C per minute. If the temperature of the room is 45°C before switching on the air conditioner. Find temperature of the room after switching on the air conditioner for 6 minutes.

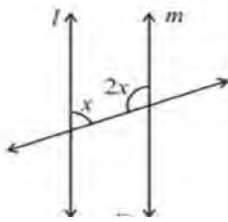
18. Find the value of  $\frac{12}{5} \div \frac{3}{5}$

OR

Find the value of  $3\frac{4}{7} \times \frac{3}{5}$

19. Raju's father's age is 5 years more than three times Raju's age. His father's age is 44 years, Write an equation for the given situation.

20. Find the value of x in the following figure if  $l \parallel m$ .



**SECTION : C**

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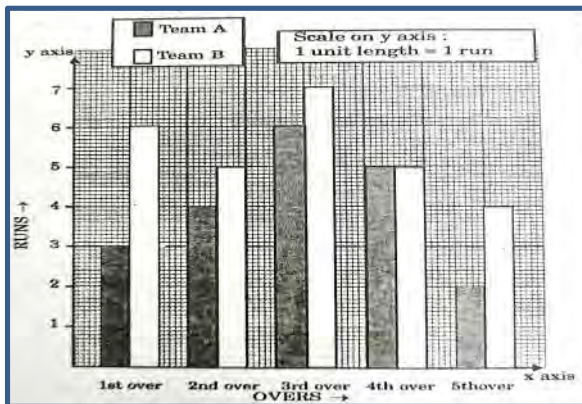
21. In a class of 40 students  $\frac{1}{5}$  of the total number of students like to study English,  $\frac{2}{5}$  of the total number like to study Mathematics and the remaining students like to study Science.

(i) How many students like to study English?

(ii) How many students like to study Mathematics?

(iii) What fraction of the total number of students like to study Science?

22. Given bar graph is representing the number of runs scored by Team A and Team B in first 5 overs of a Cricket match.



Based on the above graph answer the following questions:

i) Which team scored more runs?

ii) In which over did the both teams scored equal runs?

- iii) In which over Team A scored maximum runs?  
 23. Irfan says that he has 7 marbles more than five times the marbles Parmit has. Irfan has 37 marbles. How many marbles does Parmit have?

OR

Solve the following equations:

- i)  $10p + 10 = 100$   
 ii)  $2q - 6 = 0$

24. Is it possible to have a triangle with the sides lengths 10 cm, 5 cm and 6 cm? Give reasons.

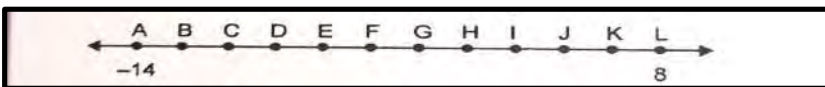
OR

The lengths of two sides of a triangle are 6 cm and 8 cm. Between which two numbers can the length of the third side fall.

25. Rs. 3,500 is given at 7% per annum rate of interest. Find the interest and amount which will be received at the end of 2 years.

**SECTION : D**

26. In the given number line, L represents (+8) and A represents (-14)



- i) What is the difference between the integers represented by A and L. (1)  
 ii) Which integers represent Points E and K (1)  
 iii) Which point represent  $(-6) \times 2$ ? (1)  
 iv) Find the value of  $(-16) \div (2)$ . (1)

OR

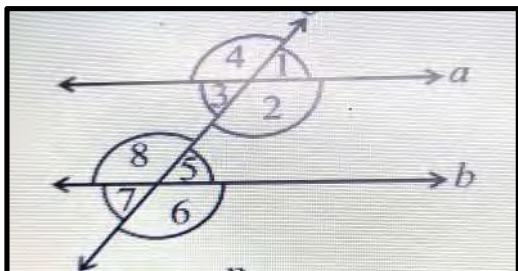
- (a) Write a pair of negative integers whose difference gives 8. (1)  
 (b) Write a negative integer and a positive integer whose sum is -5. (1)  
 (c) Write a negative integer and a positive integer whose difference is -3. (1)  
 (d) Write a pair of integers whose sum is 0. (1)

27. Distance travelled by the taxi in 7 days (Mon – Sun) is given below:

Day	Mon	Tue	Wed	Thurs	Fri	Sat	Sun
Distance (in Km)	182	106	118	92	102	148	92

- (a) Find the mean distance of the data. (1)  
 (b) On how many days was the distance travelled by the taxi is less than the mean distance travelled. (1)  
 (c) Find the median distance travelled of the given data. (1)  
 (d) On which days the distance travelled by the taxi was the same? (1)

- 28.



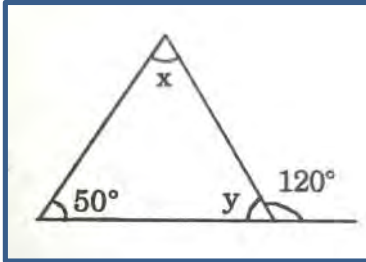
In the given figure a and b are parallel lines and a transversal c is intersecting these lines , $\angle 1 = 70^\circ$  .

Based on this answer the following questions:

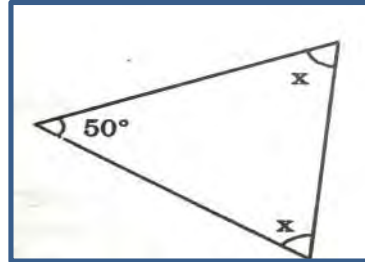
- (a) Find the measure of  $\angle 4$  (1)
- (b) Name the pair of angles formed by  $\angle 3$  and  $\angle 5$ . (1)
- (c) Name the corresponding angle of  $\angle 6$ . (1)
- (d) What is the sum of pair of angles  $\angle 3$  and  $\angle 8$ . (1)

29. In the given figures find the values of x and y (2+2)

(a)



(b)



30.(i) A survey of 40 children showed that 25% liked playing football. How many children liked playing football? How many did not like playing football? (2)

(ii) 12% of what number is 1080. (2)

OR

(i) Selling price of a toy car is Rs. 540. If the profit made by shopkeeper is 20%, what is the cost price of the toy car? (3)

(ii) Convert 40% into decimal and fraction in lowest form. (1)