

## THIRD MID-TERM TEST – 2024

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Standard VIII

Reg.No.:

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## MATHEMATICS

Time: 2.00 hrs.

Section - A

Marks: 50

5 x 1 = 5

I. Choose the correct answer:

- The difference between the largest value and smallest value of the given data is
  - range
  - frequency
  - variable
  - none of these
- The graphical representation of ungrouped data is \_\_\_\_\_.
  - histogram
  - frequency polygon
  - pie chart
  - all the three
- A \_\_\_\_\_ is a line graph for the graphical representation of the continuous frequency distribution.
  - frequency polygon
  - histogram
  - pie chart
  - bar graph
- The upper limit of the class interval (100 - 200) is
  - 100
  - 150
  - 200
  - 250
- If the word "PHONE" is coded as "SKRQH", how will "RADIO" will be coded?
  - SCGNH
  - VRGNG
  - UDGLR
  - SDHKQ

## Section - B

II. Fill in the blanks.

5 x 1 = 5

- If a class size is 10 and range is 80 then the number of classes are \_\_\_\_\_.
- Data has already been collected by some other person is \_\_\_\_\_ data.
- Histogram is a graphical representation of \_\_\_\_\_ data.
- Area of rectangle is \_\_\_\_\_.
- The intersecting point of the line  $x = 4$  and  $y = -4$  is \_\_\_\_\_.

## Section - C

III. Answer any five questions.

5 x 2 = 10

- Find the range of the given data : 53, 42, 61, 9, 39, 63, 14, 20, 06, 26, 31, 4, 57
- Say True or False :
  - Inclusive series is a continuous series
  - Comparison of parts of a whole may be done by a pie chart.
- Represent the following data in ungrouped frequency table which gives the number of children in 25 families.  
1, 3, 0, 2, 5, 2, 3, 4, 1, 0, 5, 4, 3, 1, 3, 2, 5, 2, 1, 1, 2, 6, 2, 1, 4
- What is histogram?
- Find the values  
 $y = x + 3$

|   |   |   |    |    |
|---|---|---|----|----|
| x | 0 | 3 | -2 |    |
| y | 3 | 0 |    | -3 |

- A message like "Good Mornin" written in rivers would instead of be "Doog Gninrom". In the same way, decode the sentence given below :  
"ot dnatsrednu taht scitamehtam nac eb decneirepxe erehwreve ni erutan dna laer efil"

## Section - D

Answer any four questions.

4 x 5 = 20

- The EB bill (in ₹) of each of the 26 houses in a village are given below. Construct the frequency table.  
215, 200, 120, 350, 800, 600, 350, 400, 180, 210, 170, 305, 204, 220, 425, 540, 315, 640, 700, 790, 340, 586, 660, 785, 290, 300

18. Draw a pie diagram to represent the following data, which shows the expenditure of paddy cultivation in 2 acres of land.

| Particulars  | Seeds | Ploughing | Wages  | Fertilizer | Harvest | Otehrs |
|--------------|-------|-----------|--------|------------|---------|--------|
| Expenses (₹) | 2000  | 6000      | 10,000 | 7000       | 8000    | 3000   |

Also,

- i) Find the percentage of the head in which more money had been spent?  
 ii) What percentage of money was spent for seeds?

19. Monthly expenditure of Kumaran's family is given below. Draw a suitable pie chart.

| Particular      | Food | Education | Rent | Transport | Miscellaneous |
|-----------------|------|-----------|------|-----------|---------------|
| Expenses (in %) | 50%  | 20%       | 15%  | 5%        | 10%           |

Also,

- i) Find the amount spent for education if Kumaran spend ₹6000 for rent?

- ii) What is the total salary of Kumaran?

- iii) How much did he spend more for food than education?

20. Draw a histogram for the following data :

| Class interval  | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 |
|-----------------|------|-------|-------|-------|-------|-------|
| No. of students | 5    | 15    | 23    | 20    | 10    | 7     |

21. The following in the distribution of time spent in the library by 200 students in a school.

| Time spent (in minutes) | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Number of students      | 25    | 40    | 33    | 28    | 30    | 20    | 16    | 8     |

Draw a frequency polygon using histogram.

22. Use Caesar Cipher table +4 and try to solve the given secret sentences.

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#### Section - E

V. Answer the following.

$$2 \times 5 = 10$$

23. a) Construct a rectangle BEAN with BE = 5 cm and BN = 3 cm. Also find its area.

(OR)

- b) Construct a square WEST of a diagonal 8 cm. Also find its area.

24. a) Draw the graph of  $y = 5x$

(OR)

- b) Draw the graph of  $y = x - 4$

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