

Bhavan's Tripura Vidyamandir

1ST Periodic Assessment - (2024-2025)

Class:-8

Time:- 2 hours

Name of the student:

Subject: Mathematics

Total: - 50 Marks

Roll:

Section:

General Instruction:

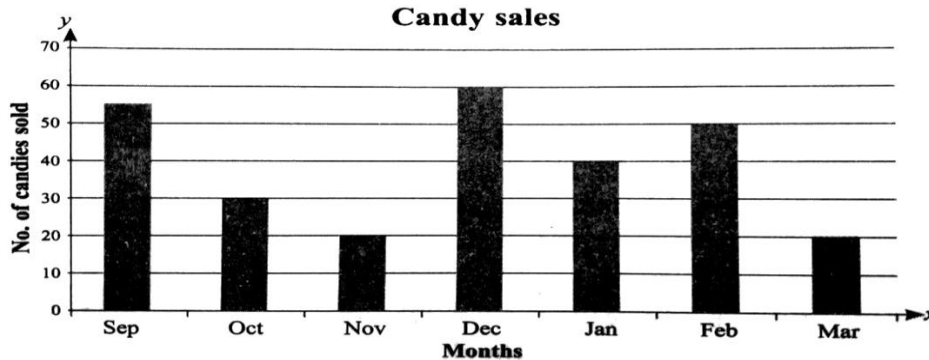
- **Section A** contains 5 questions (1 to 5) each carries 1 mark.
- **Section B** contains 1 case-study (6 to 10) each carries 1 mark.
- **Section C** contains 5 questions (11 to 15) each carries 2 mark.
- **Section D** contains 6 questions (16 to 21) each carries 3 mark.
- **Section E** contains 3 questions (22 to 24) each carries 4 mark.

Section A (1X5=5)

1. Which of the following is the probability of an impossible event?
a) 0 b) 1 c) $\frac{1}{3}$ d) 2
2. Pick the equation which has the solution in the form of prime number.
a) $2x = 3$ b) $3z = -6$ c) $4y - 3 = 2$ d) $2z - 2 = 2$
3. Diagonals of which of the following quadrilaterals do not bisect it into two congruent triangles?
a) Rhombus b) Trapezium c) Square d) Rectangle
4. Which of the following lies between 2 and 3?
a) $\frac{5}{12}$ b) $\frac{25}{12}$ c) $\frac{26}{13}$ d) $\frac{12}{13}$
5. What is the range of the data : 2, 6, 5, 7, 1, 8, 9, 5, 3, 4, 2 ?
a) 5 b) 7 c) 8 d) 9

Section B (1X5=5)

Study the bar graph and answer the following questions.



6. What does the scale on the left beginning with 0 ending with 70 represent?
a) Number of students selling candy b) Number of cases of candies sold
c) Number of candies in each case d) Number of days of each month that candy was sold
7. Which two months saw approximately the same amount of candies sold?
a) September and February b) October and March
c) November and March d) September and December
8. The amount of candies sold in December is twice the amount of candies sold in which other month?
a) October b) March c) January d) September
9. What was the total amount of candies sold in the given period shown in the graph?
a) 295 cases b) 275 cases c) 245 cases d) 225 cases

10. What is the percentage increase in sales from the month of November to December?

a) 300%

b) 33.33%

c) 200%

d) 50%

Section C (2X5=10)

11. Find the multiplicative inverse of $\left(\frac{-6}{13}\right) \div \left(\frac{2}{-39}\right)$

12. Find the number of sides of a regular polygon whose each exterior angle has a measure of 45° .

13. Solve the linear equation and check your result: $8x + 4 = 3(x - 1) + 7$

14. Simplify using suitable properties : $\frac{3}{7} + \left(\frac{-6}{11}\right) + \left(\frac{-8}{21}\right) + \left(\frac{5}{22}\right)$

15. Name the property used in each of the expression :

i) $a \times (b + c) = ab + bc$.

ii) $a \times b = b \times a$

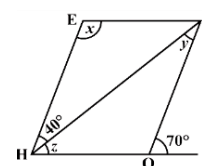
Section D (3X6=18)

16. Find a rational number between $\frac{1}{3}$ and $\frac{2}{3}$ and represent it on the number line.

17. Simplify and solve the linear equation: $3(5z - 7) - 2(9z - 11) = 4(8z - 13) - 17$.

18. The adjacent figure HOPE is a parallelogram. Find the angle

measures x, y and z. State the properties you use to find them.



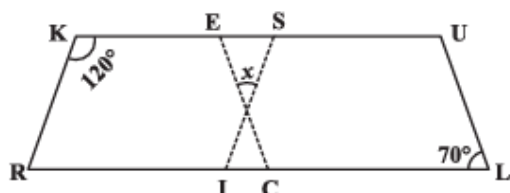
19. Given in table are the grades obtained in the annual examinations of a class, showing the percentage of students in each category.

Grades obtained	Grade A	Grade B	Grade C	Grade D
Percentage of students	30 %	45 %	15 %	10 %

Represent the given data in a pie chart.

20. A bag has 4 red balls and 2 yellow balls. (The balls are identical in all respects other than colour). A ball is drawn from the bag without looking into the bag. What is probability of getting a red ball? What is the probability of getting a yellow ball? Is the probability of getting a red ball more or less than getting a yellow ball?

21.



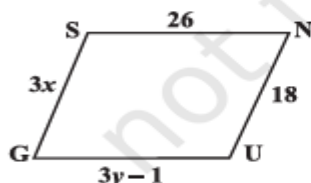
Find the value of x

Section E (4X3=12)

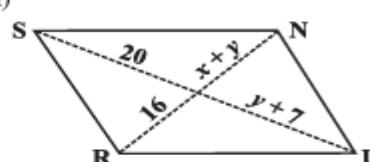
22. Solve: $5x - 2(2x - 7) = 2(3x - 1) + \frac{7}{2}$

23. The following figures GUNS and RUNS are parallelograms. Find x and y. (Lengths are in cm)

(i)



(ii)



24. Numbers 1 to 10 are written on ten separate slips (one number on one slip), kept in a box and mixed well. One slip is chosen from the box without looking into it. What is the probability of -

(i) getting a number 6?

(ii) getting a number less than 6?

(iii) getting a number greater than 6?

(iv) getting a 1-digit number?