

**CBSE (CLASS - IX) MATHS PART TEST - SA 2**

FULL MARKS : 35

MAX. TIME : 1.25 hrs

**Section: A****(1 \* 3 = 3)**

- Equation of  $x$ -axis is  
(a)  $x = 0$                       (b)  $x = y$                       (c)  $y = 0$                       (d)  $x + y = 0$
- In a frequency distribution, the mid-value of a class is 20 and the width of the class is 6, then the lower limit of the class is  
(a) 12                      (b) 24                      (c) 28                      (d) 17
- Which of the following cannot be the empirical probability of an event?  
(a)  $4/5$                       (b) 1                      (c)  $5/4$                       (d) 0

**Section: B****(2 \* 5 = 10)**

- Give the geometric representation of  $y = 3$  as an equation in two variables.
- For the linear equation  $2x + 3y = 5$ , find the point on  $x$ -axis where graph of this equation cut the  $x$ -axis.
- Eleven bags of wheat flour, each marked 5kg, actually contained the following weights of flour (in kgs):  
4.97, 5.05, 5.08, 5.03, 5.00, 5.06, 5.08, 4.98, 5.04, 5.07, 5.00  
Find the probability that any of these bags chosen at random contains not less than 5kg of flour.
- Find the arithmetic mean of first 10 prime numbers.
- The value of  $f$  up to 50 decimal places is given below:

3.14159265358979323846264338327950288419716939937510

- Make a frequency distribution of the digits from 0 to 9 after decimal point.
- What are the most and the least frequently occurring digits ?

**Section: C****(3 \* 2 = 6)**

- Find three different solution of the linear equation  $2x + 3y = 5$ , check whether  $(-3, 4)$  is a solution of the given equation.
- A die is thrown 400 times with the frequencies for the outcomes 1, 2, 3, 4, 5, 6 as given in the following table:

<b>Outcome:</b>	1	2	3	4	5	6
<b>Frequency:</b>	72	65	70	71	63	59

Find the probability of

- getting a number less than 3
- getting an outcome 6
- getting a number more than 4

**Section: D****(4 \* 4 = 16)**

11. The following table shows the amount received on certain sum of money invested at simple interest for different periods of time:

<b>Time (in years)</b>	2	5	10	15	20
<b>Amount (in Rs.)</b>	240	300	400	500	600

Plot these points on Cartesian plane, taking Time along x-axis and Amount along y-axis. Join the points. From the graph, write down the amount after 12 years.

12. If the points A(3, 5) and B(1, 4) lies on the line  $ax + by = 7$ , find the values of  $a$  and  $b$ .

**OR**

Draw the graph of the equation  $-y = 1$  and  $2x + y = 8$ . Shade the area bounded by these two lines and y-axis. Also determine this area.

13. The mean of the following distribution is 50

$x$	Frequency
10	17
30	$5a + 3$
50	32
70	$7a - 11$
90	19

Find the value of 'a' and frequency of 30 and 70.

14. Draw a histogram for the marks of students given below:

<b>Marks:</b>	0-10	10-30	30-45	45-50	50-60
<b>No. of students:</b>	8	32	18	10	6