# MATHEMATICS MOCK TEST

## Class: VI | Set: 02

**Time: 2 Hours | Written Marks: 35 | Viva: 5 | Total: 40 Marks**

NAME: _____ ROLL NO: _____

## SECTION A                                                      (1 Mark Each)

1. Check if $12,543$ is divisible by $3$ using the divisibility rule.

2. Which is greater: $0.07$ or $0.1$?

3. Write the decimal for "Nine and seven hundredths".

4. How many endpoints does a Ray have?

5. If $1$ symbol represents $10$ trees in a pictograph, how many trees do $3\frac{1}{2}$ symbols represent?

## SECTION B                                                      (2 Marks Each)

6. There were $219$ stickers in Jatin's collection. Raman gave him his album containing $237$ stickers. Estimate how many stickers Jatin has now (round to nearest hundred).

7. Convert the following into Decimals:

   (a) $500 + 70 + 8 + \frac{3}{10}$   (b) $\frac{12}{5}$

8. Draw a circle with a diameter of $8$ cm. What will be its radius?

9. The following data represents the number of members in 15 families: $4, 6, 5, 4, 3, 5, 4, 5, 4, 6, 3, 4, 3, 5, 4$. Organize this data using tally marks.

10. Subtract: $100.00 - 45.67$.

## SECTION C                                                      (3 Marks Each)

11. Abhay bought $576$ balloons for his birthday. Out of these, $239$ leaked and could not be used. Estimate how many balloons Abhay used for decoration (round to nearest hundred).

12. Nasreen bought $3$ m $20$ cm cloth for her shirt and $2$ m $5$ cm cloth for her trouser. Find the total length of cloth bought by her in metres using decimals.

13. Draw a line segment $\overline{AB}$ of length $9.5$ cm and construct its perpendicular bisector using a ruler and compasses.

**14.** The following table shows the favorite subjects of 40 students.

| **Subject** | English | Maths | Science | Hindi |
|---|---|---|---|---|
| **No. of Students** | 12 | 15 | 8 | 5 |

Represent this data using a Bar Graph.

# SECTION D                                        (4 Marks Each - Case Study)

**Case Study 1: The Palindromic Clock**
A digital clock shows time in a way that it reads the same forwards and backwards (e.g., 12:21). This is called a palindromic time.

(i) The clock just displayed 10:01. After how much time will this clock display the **next** palindromic time? (2 Marks)

(ii) How many palindromic times are there between 2 o'clock and 3 o'clock? List any two. (2 Marks)

**Case Study 2: The Shopping Trip**
Sita went to a grocery store. She bought 5 kg 500 g of rice, 2 kg 75 g of sugar, and 15 kg 5 g of flour.

(i) Express the weight of each item in kilograms using decimals. (2 Marks)

(ii) Find the total weight of all the items she bought in kilograms. (2 Marks)

# VIVA VOCE                                                           (5 Marks)

- **Number Play:** After how many iterations starting with 3814 do we arrive at Kaprekar's constant?

- **Decimals:** How many centimetres are there in $0.5$ metres?

- **Construction:** What instrument is used to draw an angle of $90°$ without using a protractor?

- **Data Handling:** What is a Pictograph?

- **Logic:** Write any one palindromic date that occurred in the year 2021.