
MATHEMATICS MOCK TEST

Class: VI | Set: 11

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

NAME: _____

ROLL NO: _____

SECTION A

(1 Mark Each)

1. Write the decimal "Sixty-five point eight three" in figures.
2. Write any three numbers whose digit sum is 12.
3. How many 4-digit numbers are there in all?
4. What is the measure of the angle formed when you bisect a 60° angle?
5. Express 0.6 as a fraction in its lowest terms.

SECTION B

(2 Marks Each)

6. Find the greatest four-digit number in which all the digits are different.
7. Write 25.638 in expanded form.
8. Draw a line segment $PQ = 6.2$ cm. Construct its perpendicular bisector using a ruler and compasses.
9. Find the product: 7.54×10 .
10. A die was thrown 15 times and the following scores were obtained:
1, 5, 2, 4, 3, 1, 2, 5, 2, 4, 1, 6, 2, 2, 3.
Organize this data using tally marks.

SECTION C

(3 Marks Each)

11. How many palindromic times are there between 12 o'clock and 1 o'clock? List them.
12. A man purchases an almirah for ₹27,085, gives ₹292.70 as cartage and spends ₹164.80 on its fitments. How much does the almirah cost him in total?
13. Using a pair of compasses, construct an angle of 90° and then bisect it to make an angle of 45° .
14. The following data represents the favorite colors of 20 students.

Color	Red	Blue	Green	Yellow
Students	6	8	4	2

Represent this data using a Bar Graph.

SECTION D

(4 Marks Each - Case Study)

Case Study 1: The Supercell Grid Challenge

In a number game, a grid is filled with values. A "supercell" is a cell whose value is greater than all its adjacent cells.

- Look at this row: **8010, 2367, 942, 1163, 125, 3418, 3814**. Identify any one supercell. (2 Marks)
- Is it possible to fill a grid with all distinct numbers such that there are no supercells? Give a brief reason. (2 Marks)

Case Study 2: Designing a Playing Card

A student is asked to construct specific shapes for a geometry project.

- Construct a rectangle the lengths of whose sides are 4 cm and 7 cm using a ruler and compasses. (2 Marks)
- Construct a square of side length 5 cm using a pair of compasses and ruler. (2 Marks)

VIVA VOCE

(5 Marks)

- **Number Play:** What is the "Kaprekar's constant" and what is its value?
- **Decimals:** How many centimetres are there in 6 mm? (Express in decimals).
- **Construction:** What is the name of the instrument used to draw an angle of 105° ?
- **Data Handling:** What does one tally mark "strikethrough" represent in a group?
- **Estimation:** If there are 55 seeds in 8 fruits, estimate the number of seeds in each fruit.