Section A: Multiple Choice Questions

1. **MCQ 1:** Which of the following is an irrational number?
a) √16
b) 0.25
c) π
d) 5/4
2. **MCQ 2:** What is the coefficient of x when 3x - 2y = 7?
a) 3
b) -2
c) 7
d) -3
3. **MCQ 3:** What is the value of sin(90°)?
a) 0
b) 1
c) 0.5
d) Undefined
4. **MCQ 4:** What is the sum of the angles of a triangle?
a) 90°
b) 180°
c) 270°
d) 360°

Section B: Short Answer Questions

5. **Short Answer 1:** Solve for x: 2x + 5 = 15
6. **Short Answer 2:** What is the formula to find the area of a circle, and explain each term in the formula.
7. **Short Answer 3:** If the mean of 5 observations is 12, what will be the new mean if each observation is multiplied by 3?
8. **Short Answer 4:** Define a prime number and provide three examples.

Section C: Long Answer Questions

9. **Long Answer 1:** Explain the concept of surface area and volume of a cuboid with a diagrammatic representation.
10. **Long Answer 2:** Solve the quadratic equation: $x^2 - 5x + 6 = 0$
11. **Long Answer 3:** Describe the steps involved in constructing a line segment whose length is 3/5th of the length of another given line segment.
12. **Long Answer 4:** If the ratio of the first term to the second term in a geometric progression is 3:5 and the sum of the first two terms is 24, find the first three terms.

Section D: Competency Based Questions

13. **Competency Based Question 1:** Imagine you are planning a sports event for your school. Develop a schedule for various events, considering factors such as duration, breaks, and resources required.
14. **Competency Based Question 2:** You are organizing a survey among your classmates to collect data on their favorite subjects. Design a questionnaire with appropriate questions and explain how you would analyze the data collected.