

### Multiple Choice (10 Marks)

Select the correct answer for each question. Each question is worth 1 mark.

- Which of the following is an irrational number?
  - $\sqrt{16}$
  - 3.14
  - $\sqrt{7}$
  - $\frac{2}{3}$
- Between which two consecutive integers does  $\sqrt{45}$  lie?
  - 5 and 6
  - 6 and 7
  - 7 and 8
  - 40 and 50
- What is the value of  $\sqrt{\frac{49}{100}}$ ?
  - 0.7
  - 0.07
  - 7.1
  - $\frac{7}{50}$
- Which statement is always true about a rational number?
  - It cannot be written as a terminating decimal.
  - It can be expressed as a fraction  $\frac{a}{b}$  where  $b \neq 0$ .
  - It must be a positive whole number.
  - Its square root is always a whole number.
- Simplify the expression:  $\sqrt{3} * \sqrt{12}$ .
  - $\sqrt{15}$
  - 6
  - 36
  - $3\sqrt{2}$
- Express the repeating decimal  $(0.555\dots)$  as a fraction in simplest form.
  - $\frac{5}{10}$
  - $\frac{1}{2}$

- C)  $\frac{5}{9}$
- D)  $\frac{5}{99}$

7. What is the value of  $(-\sqrt{5})^2$
- A) -5
  - B) 5
  - C) -25
  - D) 25
8. Which number is a non-terminating and non-repeating decimal?
- A)  $\pi$
  - B) 0.333...
  - C)  $\frac{1}{8}$
  - D)  $\sqrt{1.44}$
9. Evaluate  $\sqrt{64} - \sqrt[3]{27}$
- A) 5
  - B) 37
  - C) 8
  - D) 11
10. If  $x^2 = 121$ , what are the possible values of  $x$ ?
- A) 11 only
  - B) -11 only
  - C) 11 and -11
  - D) 60.5 and -60.5