MATHEMATICS HSSC-I
SECTION-A (Marks 20)

Time allowed: 25 Minutes

NOTE:- Section-A is compulsory and comprises pages 1-2. All parts of this section are to be answered on the question paper itself. It should be completed in the first 25 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q1. Circle the correct option i.e. A/B/C/D. Each part carries one mark.

(i) Reference angle lies in quadrant:
  A. IV   B. I
  C. II   D. III

(ii) The set {0,1} is closed w.r.t:
  A. Division   B. Addition
  C. Subtraction   D. Multiplication

(iii) $\sqrt{-5}$ belongs to the set of:
  A. Rational Numbers
  B. Real Numbers
  C. Complex Numbers
  D. Integers

(iv) The set of integers Z is a group under:
  A. Addition   B. Subtraction
  C. Division   D. Multiplication

(v) A declarative statement which may be true or false but not both is called:
  A. Tautology   B. Proposition
  C. Deduction   D. induction

(vi) If $A = \begin{bmatrix} x & 1 \\ 1 & 1 \end{bmatrix}$ and A is singular matrix, then $x =$
  A. 3   B. 0
  C. 1   D. 2

(vii) The product of all fourth roots of unity is:
  A.   B. 1
  C. 0   D. -1

(viii) A fraction in which the degree of numerator is less than the degree of the denominator is called:
  A. Algebraic Relation
  B. improper Fraction
  C. Proper Fraction
  D. Equation

(ix) $1^3 + 2^3 + 3^3 + \ldots + n^3 =$
  A. $\dfrac{n^2(n+1)^2}{4}$ B. $\dfrac{n(n+1)(2n+1)}{6}$