**SECTION-B (40-marks)**

Q no:2 Attempt any 10 parts. All parts carry equal marks.

(¡) If and the Terminal arm of the angle is in the first quadrant find the value of

(¡¡) Prove that

(¡¡¡) If α, β, γ are the angles of triangle ABC, show that

(iv) Reduce θ to and expression involving only function of multiples of θ, raised to the

First power.

(v) The sides of the triangle are Prove that the greatest angle of the triangle is 120°.

(vi) Prove that with usual notations.

(vii) Show that

(viii) Find the value of θ satisfying the equation

θ θ +1 = 0

(ix) Separate the real and imaginary parts

(x) Prove that the sum as well as the product of any two conjugate complex number is real number.

(xi) Prove the following

**SECTION-C (40-marks)**

Qno:3. Simplify the following

Qno:4 Prove that is an irrational number.

Qno:5 Prove the Fundamental Law of Trigonometry.

Qno:6 Prove that

Qno:7 Solve

***The End***