



Department Of AHS

Final Term Summer-2020

**Subject:** Mathematics-1  
**Instructor:** Anwar Shamim

**Duration:** 240 Minutes  
**Total Marks:** 50

**Note:** Attempt all questions. Manage your time properly.

**Q.No. 1**

**(10+10)**

(a) Solve the system with two variables by Cramer's rule.

$$X - 2y = 1$$

$$3X + y = 10$$

(b) Solve the system with two variables by Inversion method.

$$X - 3y = 0$$

$$2X + y = 7$$

**Q.No.(02)**

**(5+5+5)**

Solve the Following Quadratic Equation by Using Factorization Method

(a)  $4Y^2 + 15Y + 6 = 4Y$

(b)  $X^2 + 15X = -50$

(c)  $Y^2 = 6Y + 27$

**Q.No.(03)**

**(7+8)**

Solve the Following Quadratic Equation by Using Factorization Method.

(a) The sum of two numbers is 27 and their product is 50. Find the numbers.

(b) The Three sides of a right angled triangle are X, X+1 and 5. Find X and the area, if the longest side is 5.