Course Code: AEA 303
Course Title: Agricultural Production Economics
Credit Unit: 3
Time Allowed: 3 Hours
INSTRUCTION: Answer any five (5) questions. All questions carry equal marks.
            Total Score: 100Marks

1. a). Briefly explain the term production possibility curve? 11Marks

    b).State its characteristic features. 9 Marks

2. a).Write short notes on marginal rate of technical substitution (MRTS) and Isoquant. 12 Marks

    b). State the characteristic features of MRTS and Isoquant? 8 Marks

3. a). Define the term elasticity of production? 10 Marks

    b). State the end product of output elasticity that guides to determine elasticity of production in the three stages of production function. 10 Marks

4. a). State the implicit production function of product-product relationships. 4 Marks

    b). With the aid of distinct examples highlight the different types of product-product relationships. 16 Marks

5. a). List four assumptions for determining the optimum level of output in a resource allocation involving one variable input and one product. 8 Marks

    b). Highlight five uses of economics in agriculture? 12 Marks

6. The production function of maize output are as follows:

    $Y = 100 + 400X - 2X^2$

    Where Y = maize output (kg) and

        X = fertilizer application (kg)

    Calculate: (a)   the level of input that will maximize maize output. 10 Marks

                   (b)   The optimum quantity of maize that could be produced. 10 Marks

7. Briefly describe and illustrate graphically the three forms of input substitution? 20 Marks