**TUTORIAL 5:**

**THEORY OF PRODUCTION**

**Name:**

**Marks**:

**ID:**

**Section:**

Question 1

Table below shows the production function for Milah’s Murtabak in Muadzam Shah.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Capital** | **Labour** | **Total Product** | **Average Product** | **Marginal Product** |
| 10 | 1 | 1000 |  |  |
| 10 | 2 | 2200 |  |  |
| 10 | 3 | 3600 |  |  |
| 10 | 4 | 4000 |  |  |
| 10 | 5 | 4200 |  |  |
| 10 | 6 | 4200 |  |  |
| 10 | 7 | 3500 |  |  |
| 10 | 8 | 1600 |  |  |

Required :

1. Calculate AP and MP and complete the above table for Milah’s Murtabak.
2. Using a graph paper, plot the TP, AP and MP curves in a diagram and indicate the three stages of production.

1. Based on the table, at what number of labour do the Stage I and II end?
2. Based on the diagram, explain the relationship between Average Product and Marginal Product.
3. Based on the diagram, explain the relationship between Total Product and Marginal Product.
4. Does the firm operate in the short run or in the long run? Explain your answer.

Question 2

Table below shows the number of breads that the firm can produce with various combinations of two inputs which are capital and labour.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Capital/Labour** | **1** | **2** | **3** | **4** | **5** |
| **1** | 150 | 250 | 450 | 500 | 600 |
| **2** | 250 | 450 | 600 | 650 | 750 |
| **3** | 450 | 600 | 750 | 850 | 900 |
| **4** | 500 | 650 | 700 | 850 | 950 |
| **5** | 600 | 750 | 850 | 900 | 950 |

**Required:**

1. Based on the above table, what are the combinations of labour and capital to produce 600 pieces of breads?
2. On a graph paper, plot an isoquant curve to show the combination of labour and capital to produce 600 breads.
3. Give **THREE (3)** characteristics of an isoquant curve.
4. Differentiate between increasing return to scale and decreasing return to scale.