## **BA Sangam College**

#### Year 12

#### **Economics**

#### Worksheet 4

## Production Possibility Curve

A.Use the table below to answer questions as follows.

| Combination | Rice (tonnes) | Boats |
|-------------|---------------|-------|
| A           | 100           | 0     |
| В           | 95            | 1     |
| С           | 75            | 2     |
| D           | 50            | 3     |
| Е           | 0             | 4     |

Calculate the opportunity cost of moving from:

| • | B to C | D to C |
|---|--------|--------|
| • | A to E | B to D |
| • | E to A | D to A |

## Production and Producer

Singh is a market vendor who sells grog in Namaka market. He is a price taker. He sells grog at \$4.50 a bag. The table below shows the cost of his business at each level of output being produced.

| Labour[workers/day] | Output[grog | Total cost[\$] | Variable cost | Marginal Cost |
|---------------------|-------------|----------------|---------------|---------------|
|                     | bag/day]    |                | [\$]          | [\$]          |
| 0                   | 0           | 100            |               |               |
| 1                   | 5           | 120            |               |               |
| 2                   | 15          | 140            |               |               |
| 3                   | 30          | 160            |               |               |
| 4                   | 50          | 250            |               |               |
| 5                   | 75          | 280            |               |               |

| (i) | Determine the <b>fixed cost</b> ? | (1/2 mark) |
|-----|-----------------------------------|------------|
|     |                                   |            |

- (ii) Complete the table given in the answer book by calculating the total variable cost and marginal cost at each level of output. (2 marks)
- (iii) Calculate the **profit maximizing output** for this market vendor. (1 mark)
- (iv) Calculate the **average physical product** [APP] at the profit maximizing level of output. (1 mark)

C.

Use the data given below to answer the questions that follow.

# Schedule of Production Costs and Average Revenue for a Dalo Producing Company

| AVC (of dalo) | AR (\$)                         |
|---------------|---------------------------------|
| 320           | 800                             |
| 300           | 610                             |
| 276           | 530                             |
| 250           | 410                             |
| 220           | 340                             |
| 250           | 320                             |
|               | 320<br>300<br>276<br>250<br>220 |

NOTE: The fixed cost of production is \$400.

- (a) Calculate the short-run:
  - Marginal cost at 4 units of dalo.
  - (ii) Total cost at 6 units of dalo.
  - (iii) Total revenue at 5 units of dalo.
  - (iv) Total variable cost at 3 units of dalo.

(4 marks)

(b) Indicate the profit maximizing output of the firm. Show your working.

(1 mark)

# The End