► NUMERICALS

COST

Q. 1. A firm's total cost schedule is given in the following table:

| A firm's total cost | schedu | le is giv | en m en | C IOIIO | 8 | | 1.1 | 1177 | 0 |
|---------------------|--------|-----------|---------|---------|-----|-----|-----|------|-----|
| Output (units) | 0 | 1 | 2 | 3 | 4 | 5 | 6 | | - 0 |
| Total Cost (in ₹) | 40 | 120 | 170 | 180 | 210 | 260 | 340 | 440 | 550 |

(i) What is the total fixed cost of this firm?

(ii) Derive AFC, AVC, ATC, and MC schedules.

[NCERT] 4

Q. 2. Complete the following table if the AFC at 1 unit of production is $\stackrel{?}{\scriptstyle{\sim}}$ 60.

[NCERT] 4

| Output (Units) | TC (₹) | TFC (₹) | TVC (₹) | AFC (₹) | AVC (₹) | ATC (₹) | MC (₹) |
|-------------------|-----------|------------|---------------|-----------------|----------------------|--------------|-----------|
| 1 | 90 | | gerte et fart | and the s | nover iso | 91717 | |
| 2 | 105 | | | | | | 50 : 30 |
| 3 | 115 | 2 (SE) | | 4 1 4 1 1 2 E C | o sebuma fina | | |
| 4 | 120 | | | ann teach | | 117 | |
| 5 | 135 | | | | 200-1 | PER CONTRACT | |
| 6 | 160 | | | | Tanada e e e | | |
| 7 | 200 | | | 100 | | | |
| 8 | 260 | | S. D. Stri | | | | |

Q. 3. Suppose the firm's TFC is ₹ 100 and the marginal cost schedule of a firm is following:

| Suppose the m | | 9 | 3 | 4 | 5 | 6 | 7 |
|---------------|----|----|----------|----|----|----|----|
| Output | 1 | | <u> </u> | | 50 | 60 | 70 |
| MC (in ₹) | 10 | 20 | 30 | 40 | 50 | 60 | |

(i) Is MC curve 'U' shaped?

(ii) Derive AVC schedule. Will the AVC curve be 'U' shaped? Discuss why or why not? [NCERT] 4

Q. 4. From the following data calculate AFC, AVC and MC:

| Output | 0 | 1 | 2 | 3 | 4 | 5 |
|-----------|----|-----|-----|-----|-----|-----|
| TC (in ₹) | 40 | 100 | 120 | 130 | 150 | 190 |

Q. 5. From the following table calculate average variable cost of each given level of output: [CBSE Delhi 2004] 4

| Output (Units) | 1 | 2 | 3 | 4 |
|-------------------|----|----|----|----|
| Marginal Cost (₹) | 40 | 30 | 35 | 39 |

Q. 6. From the following data on the cost of production of a firm calculate TFC, AFC, TVC, **AVC and MC:**

| AVC and MC: | | Mergarel | 3754 | | Carrie . | 160-140-1-1 | |
|-------------|----|----------|------|-----|----------|-------------|-----|
| Output (kg) | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| TC (in ₹) | 60 | 80 | 100 | 111 | 116 | 130 | 150 |

Q.7. From the following data on the cost of production of a firm calculate (i) average fixed cost and (ii) average variable cost of producing four units and the marginal cost of the fourth unit:

| fourth unit: | | | | | |
|----------------|----|-----|-----|-----|-----|
| Output (kg) | 0 | 1 | 2 | 3 | 4 |
| | 80 | 102 | 122 | 140 | 156 |
| Total Cost (₹) | 80 | | 4 | | |