3.3 COSTS AND REVENUE -ANSWERS

1.

Output	Sales Revenue	Fixed Cost	Variable Cost	Total Cost	Profit
0	0	500	0	500	(500)
1	300	500	200	700	(400)
2	600	500	400	900	(300)
3	900	500	600	1100	(200)
4	1200	500	800	1300	(100)
5	1500	500	1000	1500	0
6	1800	500	1200	1700	100

2.

Output	Total Revenue (€)	Total Fixed Costs (€)	Total Variable Costs (€)	Total Costs (€)	Profit (€)
0	0	20,000	0	20,000	(20,000)
100	10,000	20,000	5,000	25,000	(15,000)
200	20,000	20,000	10,000	30,000	(10,000)
300	30,000	20,000	15,000	35,000	(5,000)
400	40,000	20,000	20,000	40,000	0
500	50,000	20,000	25,000	45,000	5,000
600	60,000	20,000	30,000	50,000	10,000

3. Complete the table.

Output(T-shirts)	Fixed Cost ($)	Variable Cost ($) ($9 per T-shirt)	Total Cost ($)
0	5000	0	5000
500	5000	4500	9500
1000	5000	9000	14000
1500	5000	13500	18500
2000	5000	18000	23000

4.

Total costs (TC) is the sum of total fixed costs (TFC) and total variable costs (TVC)

TVC = Average variable cost (AVC) multiplied by the output level, i.e. $15 × 150,000 = $2,250,000.

Therefore, TC = $1,200,000 + $2,250,000 = $3,450,000

5.

Total costs (TC) is the sum of total fixed costs (TFC) and total variable costs (TVC)

TVC = Average variable cost (AVC) multiplied by the output level, i.e. $2 × 1.25m = $2.5m

Therefore, TC = $2m + $2.5m = $4.5 million

6.

Variable cost per unit = Average variable cost (AVC)

AVC = TVC / Q (where Q = Quantity of output)

TVC = TC – TFC = $2,000 – $1,100 = $900

AVC = $900 / 600 = $1.50