| Class: XI | Department: Commerce |
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| Subject: Entrepreneurship | Chp 6 - Business Finance and Arithmetic |
| Worksheet no: 01 | Numericals |

## NUMERICALS:

1. The following information relates to a company, which produces a single product (Door mats)

Calculate B.E.P (in units) and B.E.P (in sales)

| Fixed Cost | $₹ 1,00,000$ |
| :--- | :--- |
| Variable Cost | $₹ 40$ per unit |
| Sales Price | $₹ 90$ per unit |

2. The following information relates to a company, which produces a single product (Tooth paste)

| Direct Labour per unit | ₹ 10 |
| :--- | :--- |
| Direct materials per unit | ₹ 20 |
| Fixed Cost | ₹ $2,00,000$ |
| Variable overhead per unit | ₹ 5 |
| Selling Price per unit | ₹ 90 |

Calculate B.E.P (in units) and B.E.P (in sales)
3. The following information relates to a company, which produces Designer wear

| Direct Labour per unit | $₹ 20$ |
| :--- | :--- |
| Direct materials per unit | $₹ 40$ |
| Fixed Cost | $₹ 5,00,000$ |
| Variable overhead per unit | $₹ 10$ |
| Selling Price per unit | $₹ 100$ |

Calculate:
i. Variable cost per unit
ii. The minimum number of units that must be sold for the company to break even
iii. Show break even in terms of rupees
4. The following information relates to 'Gupta' who is running a sandwich stall selling different types of sandwiches

| Fixed Cost | ₹ 20,000 |
| :--- | :--- |
| Variable cost per unit | $₹ 10$ |
| Selling Price per unit | $₹ 20$ |

## Calculate:

i. The minimum number of units that must be sold for the company to break even
ii. Show break even in terms of rupees
iii. Calculate B.E.P (in units and in rupees) if:
a. Fixed cost decreases by $10 \%$
b. Fixed cost increases by $10 \%$
c. Variable cost increases by $10 \%$
d. Selling cost increases by $10 \%$ and Fixed Cost increases by ₹ 2,000
5. The following information relates to a company, which produces a single product (Door mats)

Calculate B.E.P (in units) and B.E.P (in sales)
Fixed Cost ₹ 1,00,000
Variable Cost ₹ 40 per unit
Sales Price
₹ 90 per unit
6. Gitanjali runs a children day care centre (Jhoolaghar). The main clients are working parents, who pay a fixed amount of ₹. 100 per child for the whole day. Children at the centre learn through play and engaged in different activities like art, music, dance, physical education, handwriting and value education. The business is open for an average of 22 days each month

| Capacity | 25 children per day |
| :--- | :--- |
| Unit Price | ₹. 100 |
| Material Requirement per child | ₹. 10 |
| Rent | ₹. 3000 |
| Salary | ₹. 5000 |
| Administrative Expenses | ₹. 300 |
| Electricity Charges | ₹. 700 |

From the above given information calculate:
i. Total Fixed Cost
ii. Calculate Break Even Point (in units) and Break-Even Point (in sales)
iii. Show TR=TC concept.
7. The following information relates to 'Gupta' who is running a sandwich stall selling different types of sandwiches

| Fixed Cost | ₹ 10,000 |
| :--- | :--- |
| Variable cost per unit | ₹ 5 per unit |
| Selling Price per unit | ₹ 10 per unit |
| Calculate: |  |

e. B.E.P (in units) if Variable cost increases by $10 \%$
f. B.E.P (in rupees) if Selling cost increases by $10 \%$ and Fixed cost increases by Rs. 2000 8.The following information relates to a company, which produces a single product (Door mats)

Calculate B.E.P (in units) and B.E.P (in sales)

| Fixed Cost | ₹ $1,00,000$ |
| :--- | ---: |
| Variable Cost | ₹ 40 per unit |
| Sales Price | ₹ 90 per |

9.Sapna runs a sandwich stall outside a shopping mall. Following information shows her cost and revenue

| Capacity | 200 sandwiches per day |
| :--- | :--- |
| Demand | 150 sandwiches per day |
| Unit price | ₹. 35 per sandwiches |
| Ingredients and Materials Requirements per <br> day | ₹. 15 per sandwiches |
| Rent | ₹. 2000 |
| Salary | ₹. 2400 |
| Other fixed overhead expenses | ₹. 1600 |
| Electricity | ₹. 500 |

You are required to Calculate:
i. Total Fixed Cost
ii. Calculate new B.E.P (in units) and (in sales) if Fixed Overhead Expenses increased by ₹. 100
iii. Show TR=TC concept.
10.The following information relates to 'Nagpur \& Co' who is running a fruit stall selling different types of fruits

| Fixed Cost | ₹ 20,000 |
| :--- | ---: |
| Variable cost per unit | ₹ 5 per unit |
| Selling Price per unit | ₹ 10 per unit |

Calculate:

1. B.E.P (in units) if Variable cost increases by $10 \%$
2. B.E.P (in rupees) if Selling cost increases by $10 \%$ and Fixed cost increases by Rs. 4000
