NAME Muhammad ALi

Reg.No 19PWCSE1804

Section A

Problem 2.4 :-

Q:- Classify Variable and Fixed cost ?

Raw Material, direct Labor, and Sales Commissions are Variable cost- And all other cost Depreciations, Utilities, taxes, salaries, Rent and Interest on borrowed money etc are fixed cost.

Problem 2.5

CASH COST :-

In cash base accounting the cash cost refer to the recongnition of expenses as they are paid in cash.

CASH FLOW :-

Cash flow the exchange of net amount of cash of a company with others.

Problem 2.10

Monopoly :-
When there is one seller and and large number of buyer in the market - It has power of controling price, e.g Google -

Oligopoly :-
An Oligopoly market is where there are few seller and large number of buyer - It has difficulty to start a business. but not impossible.
e.g : Fast-food Restaurants -

Competition :-
There are large no of sellers and buyer, perfect competition occurs in which any given product is supplied by large number of vendor -
e.g :- Operating System provider -

↳ No, monopoly is never ever desirible for economic welfare of public -

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Problem 2.11

Solution:-

selling price $P = ?$, $D = 780 - 10P$

And $P = a - cD$

So

$780 + D = -10P$

$$P = 78 - \frac{1}{10}P$$

$a = 78$, $b = 0.1$

According to formula

$$D = \frac{a - c_v}{2b}$$

$$D = \frac{78 - 30}{2(0.1)}$$

$D = 240$ per month

And, To find max profit

Max profit = $T_R - C_T$

$= (78 \times 240) - (6.1 \times (240)^2) - (800 + (30 \times 240))$

$= \$2960 - 8000$

Max profit = $\$4960$

Problem 2.14

Solution:-

$$D = 500 - 5P$$

$C_F = \$1000 / \text{month}$

$C_V = \$20 \text{ units}$

$$P = \frac{500}{5} - \frac{1}{5}D \qquad \therefore P = a - bD$$

$$P = 100 - 0.2D$$

$a = 100$, $b = 0.2$

D_{TR} at maximum revenue $= \frac{a}{2b}$

$$D_{TR_m} = \frac{100}{2(0.2)} = 260$$

And

Demand at BE point $= \frac{a - C_V}{2b}$

$$D_{TP} = \frac{100 - 20}{0.2 \times 2} = 200$$

a) $TR = aD - bD^2$

$= 100(250) - (0.2 \times (250)^2)$

$TR_{max} = \$ 12500$

b) Same formula use

$TR = aD_p - bD_p^2$

$= (100 \times 200 - (0.2 \times (200)^2)$

$TR_p = \$120000$

Maximum profit $= \$120000 - \$5000$

Max profit $= \$7000$

Problem 2.16

Revenue = 328 D

Total cost C_T = 166D + 504000

At break even point,

Revenue = Total cost

166D + 504000 = 328D

D = 3111

When fixed price reduction = 504000(0.82)

= $413280

When variable price reduced by 6% = 166(0.94)

= $156.04

Now, C_T = 156.4 + 413280

At BE point, C_T = TR

328D = 156.4D + 413280

D = 2404

If percentage reduction is 28.90%

Problem 2.18

Solution:-

D = Total revenue / Price

D = 280000/70 = 7000

At break even point, $D = \frac{C_F}{P-(C_V/D)}$

= 100,000 / 40 - 20

D = 5000 units

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Problem 2.20

Solution:-

A + BE Point

a) $D = \frac{C_F + C_F}{P}$

OR

$(P - C_V)D = C_F$

$(30,000 - 20,000)D = 600,000$

b) $D = 50$

$\boxed{P = TR/D}$

Problem 2.31

Solution:-

a) $C_T = C_V + C_F$

$= \$100000 + \$20000$

$P = \$40$

$PD = C_F + C_V D$

$40D = 120000 + 25D$

$15D = 12000$

$D = 8000$

b)

$Profit = 40(10000) - (120000) + (10000)(25)$

$Profit = \$30000$

c)

$Profit = 38D - 120000 - 25D = 6000$

$D = \$8000$

DATE:

Problem 2.33

Solution :-

a) Price = $3

Total revenue = $3000

If delayed

TR = PD = (1.5)(2000) = $3000

If more delayed.

TR = (0.7)(3000) = $2250

If third week delay

TR = (0.375)(4000) = $1500

b) First week is a high revenue week for firm.