Cost & Management

DECEMBER - 2020

Q 14). EOQ :-

Sol :-

Annual consumption, A = 6000 units
Cost of order, B = Rs. 60
Cost per unit, C = Rs. 80
Annual carrying, S = Rs. 2

$$EOQ = \sqrt{2(AB)/CS}$$

$$= \sqrt{2(6000 \times 60)/80 \times 2}$$

$$= \sqrt{2(360000)/40}$$

$$= \sqrt{720000/40}$$

$$= \sqrt{18000}$$

$$= 134.16 \text{ units.}$$

Q 15). Halsey Plan & Rowan Plan :-

Sol :-

Standard time, S = 36 hours
Actual time, TT = 30 hours
Rate per hours, R = Rs. 10

* Halsey Plan :-

$$WH = (TT \times R) + 50\% \cdot (S - TT) \times R$$

$= (30 \times 10) + 50\% (36-30) \times 10$

$= 300 + 50/100 \times (6) \times 10$

$= 300 + 0.5 \times 60$

$= 300 + 30$

W.H $= 330$ RS//

* Rowan Plan:-

W.H = TT XR + Bonus

Bonus $= (S - TT/S) \times TT \times R$

$= (36-30/36) \times 30 \times 10$

$= 6/36 \times 300$

$= 0.167 \times 300$

$= 50.1$ RS//

W.H $= 30 \times 10 + 50.1$

$= 300 + 50.1$

$= 350.1$ RS//

Q 18). Production budget :-

Sol :-

Production budget for Three months to March 31, 2012

Particulars	A	B	C	D	Total
Estimated Sales	20000	25000	50000	10000	105000
Add (+) closing Stock	4000	6000	11000	1000	22000
	24000	31000	61000	11000	127000
less (-) opening stock	5000	6000	10000	1000	22000
Total No. of units	19000	25000	51000	10000	105000

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Q 21) Straight Piece rate & Taylor's diff piece rate :-

Sol :-

Standard production = [redacted] $\frac{60}{12}$ = 5 units per hour

Factory day = 8 hours
Normal time rate = RS. 60

* Straight Piece rate :-

= No. of pieces x Rate Per Pieces.

per piece rate = Time Rate Per hr / No. of Piece Produced Per hr

= 60/5 = RS. 12

x) = 30 x 12 => [redacted] RS//

y) = 50 x 12 => 600. RS//

* Taylor's diff. Piece rate :-

* Standard output = No. of Pieces per hr x Total wk. H => 5 x 8 => 40

x = 80%
y = 120%

x) = Piece rate, x x 80%.

$= 360 \times \frac{80}{100}$

= 360 x 0.8 = RS. 288//

y) = Piece rate, y x 120%.

$= 600 \times \frac{120}{100}$

= 600 x 1.2

= RS. 720//

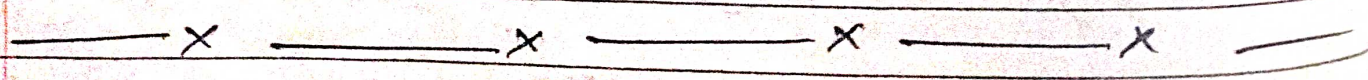
December - 2020

Q 16) Machine hour rate :-

Sol :-

Particular	Rupees (Rs)	Per month (166 hrs) (Rs).	per hour (Rs)
Standing charge		50	0.30
Running charge: repairs & maintance		150	0.90
Depreciation $\frac{(12000-1200)}{10000}$		179.28	1.08
Power	(5x0.19)	157.7	0.95
Total		536.98	3.23

* Comprehensive Machine Hour Rate = Rs. 3.23/-



Q 2). Inventory Control:-

Min Consumption = 240 units per day
Max Consumption = 420 units per days
Nor Consumption = 300 units per day
Reorder period = 10 - 15 days
Min - Max
Nor reorder period = 12 days.
Re order Quantity = 3600 units

Sol:-

c) Re order level:-

Re-order level = Max cons x Max re-order Period

= 420 x 15

= 6300 units //

a) Maximum Stock level = Reorder level + Re order qty - (min cons x min Re order period)

= 6300 + 3600 - (240 x 10)
= 9900 - 2400

= 7500 units //

b) Minimum Stock level = Re-order level - (nor cons x Nor re-order period)

= 6300 - (300 x 12)
= 6300 - 3600

= 2700 units //

d) Average Stock level = Min level + 1/2 × Re-order qty

= 2700 + 1/2 × 3600

= 2700 + 1800

= 4500 units