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90
100

Answer Sheet

Section - A

Answer 1) Multiple choice question -

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1. ~~(c)~~ ₹ 1,70,000.
2. ~~(c)~~ ₹ 14,437.50.
3. ~~(a)~~ 83% of the piece work rate.
4. ~~(b)~~ ₹ 7,20,000
5. ~~(d)~~ ₹ 180,000
6. ~~(b)~~ ₹ 1,10,000
7. ~~(d)~~ 720 units.
8. ~~(d)~~ when actual loss is less than the expected loss.
9. ~~(b)~~ 18,900 normal days.
10. ~~(a)~~ ₹ 1200 (A).
11. ~~(b)~~ 200 units.
12. ~~(a)~~ prime cost plus factory overheads.
13. ~~(c)~~ ₹ 0.08
14. ~~(a)~~ ₹ 400 (A)
15. ~~(c)~~ ₹ 95 (A)



Answer 2)

(a) Selling Overhead Budget

Particulars	₹ 80,000	₹ 90,000	₹ 1,00,000
Salv			
A. Fixed overhead			
advertising	1000	1000	1000
salaries of sales department	1000	1000	1000
expenses of sales department	750	750	750
salesman remuneration	3000	3000	3000
total fixed overhead (A)	5750	5750	5750
B. Variable overhead			
salesman commission	720 [(80000-9000) x 1%]	800 [(90,000-1000) x 1%]	895 [(1,00,000-10500) x 1%]
carriage outward	4000 (80,000 x 5%)	4500 (9,00,000 x 5%)	5000 (1,00,000 x 5%)
agent's commission	600 (8000 x 7.5%)	750 (10,000 x 7.5%)	788 (10500 x 7.5%)
total variable overhead (B)	5320	6050	6683
grand total (A+B) overhead	11070	11800	12433

Ques 2)

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(b) Computation of Direct Expenses -

Particular	Product X	Product Y
	₹	₹
add: Royalty paid on sales	$15000 \times 2 = 30000$	$12000 \times 2 = 24000$
add: Royalty paid on units produced	$20000 \times 1 = 20000$	$15000 \times 1 = 15000$
add: hire charges of equipment used in manufacturing process of product X only	5000	-
add: design charges	15000	15000
add: software development charges related to production	24000	36000
direct expenses	94000	93000

Concentrate on fundamental concepts to solve practical questions correctly.

Answer 3)

~~7 (a)~~

ordering cost = ₹100

carrying cost = ₹500 × 20% = ₹100

annual requirement of tubes = 100 × 52 = 5200

(i) ~~Economic order quantity~~ = $\sqrt{\frac{2 \times A \times C_o}{C_c}}$

= $\sqrt{\frac{2 \times 5200 \times 100}{100}}$

= 102 tubes

(ii) ~~re order level~~ = maximum usage × maximum time

= 200 × 8

= 1600 tubes

(iii) ~~maximum level of stock~~ = ~~ROL + ROQ - (minimum usage × mini. time)~~

= 1600 + 102 - (50 × 6)

= 1402 tubes

(iv) ~~minimum level of stock~~ = ~~ROL - (average usage × average time)~~

= 1600 - (100 × 9)

= 1600 - 900

= 900 tubes

₹00	1500
total cost 2600000	2470000
order cost 5098	846.66
carrying cost 5100	7120
<u>2610198</u>	<u>2541596.66</u>

Answer 3)

(b)

(i) material cost variance = standard cost - actual cost

$$x = (10 \times 3 \times 300) - (32 \times 350) = 2200 \text{ (A)}$$

$$y = (4 \times 10 \times 500) - (47.5 \times 550) = 6125 \text{ (A)}$$

$$z = (5 \times 10 \times 400) - (43.5 \times 360) = 4340 \text{ (F)}$$

$$\boxed{3985 \text{ (A)}}$$

~~7~~ (ii) material price variance = actual quantity (standard price - actual price)

$$x = 32 (300 - 350) = 1600 \text{ (A)}$$

$$y = 47.5 (500 - 550) = 2375 \text{ (A)}$$

$$z = 43.5 (400 - 360) = 1740 \text{ (F)}$$

$$\boxed{2235 \text{ (A)}}$$

(iii) material quantity variance = standard price (standard quantity - actual quantity)

$$x = 300 (30 - 32) = 600 \text{ (A)}$$

$$y = 500 (40 - 47.5) = 3750 \text{ (A)}$$

$$z = 400 (50 - 43.5) = 2600 \text{ (F)}$$

$$\boxed{1750 \text{ (A)}}$$

(iv) material mix variance = standard price (RSQ - actual quantity)

$$x = 300 (30.75 - 32) = 375 \text{ (A)}$$

$$y = 500 (41 - 47.5) = 3250 \text{ (A)}$$

$$z = 400 (51.25 - 43.5) = 3100 \text{ (F)}$$

$$\boxed{525 \text{ (A)}}$$

(v) material yield variance = standard price (standard quantity - RSQ)

$$x = 300 (30 - 30.75) = 225 \text{ (A)}$$

$$y = 500 (40 - 41) = 500 \text{ (A)}$$

$$z = 400 (50 - 51.25) = 500 \text{ (A)}$$

$$\boxed{1225 \text{ (A)}}$$

Working note:-

Calculation of Revised Standard Quantity (RSQ)

$$x = 123 \times \frac{3}{12} = 30.75$$

$$y = 123 \times \frac{4}{12} = 41$$

$$z = 123 \times \frac{5}{12} = 51.25$$



Answer 4)

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(a)	Particulars	details	₹
	Inventory at the beginning of the year	3000	
add:	inventory during the year	1,10,000	
less:	inventory at the end of the year	(4000)	1,09,000
	material consumed		65,000
add:	direct labour		1,74,000
	prime cost		39,000
add:	factory overhead (60% of direct labour)		2,13,000
	factory cost / work cost		
add:	opening work in progress	4000	
less:	closing work in progress	(6000)	(2000)
	net factory cost		2,11,000
add:	administrative overhead (5% of sales)		13,750
	cost of production		2,24,750
add:	opening finished goods	7000	
less:	closing finished goods	(8000)	(1,000)
	cost of goods sold		2,23,750
add:	selling overhead (10% of sales)		27,500
	cost of sales		2,51,250
	profit (balancing figure)		<u>23,750</u>
	sales		2,75,000

Answer 4)

(b) Operating Cost Statement

Particulars		₹ (per annum)
A	Total Cost	
	Staff salaries	102000
	Room attendant wages (working note 2.)	79200
	Lighting, heating and power (working note 3)	73200
	Repairs to building	10000
	License	4800
	Sundries	6600
	Interior decoration and furnishing	10000
	Depreciation on:-	
	building 5% of ₹ 4,00,000	20000
	other equipment 10% of (5,00,000 - 4,00,000)	10000
	Interest on investment 2% of 5,00,000	1,00,000
	total cost	416000
B.	Profit (25% on 316000)	79000
C.	Total Rent to be charged (A+B)	495000
D.	Room days	19800
E.	Room rent per day (C/D)	25

Working notes :-

1. Calculation of room days :-

$$\text{Summer} : 100 \text{ rooms} \times \frac{80}{100} \times 6 \text{ months} \times 30 \text{ days} = 14400$$

$$\text{Winter} : 100 \text{ rooms} \times \frac{30}{100} \times 6 \text{ months} \times 30 \text{ days} = 5400$$

total 19800

2. Calculation of room attendant's wages :-

$$\text{Summer} : ₹ 4 \times 100 \text{ rooms} \times 80\% \times 6 \text{ months} \times 30 \text{ days} = 57600$$

$$\text{Winter} : ₹ 4 \times 100 \text{ rooms} \times 30\% \times 6 \text{ months} \times 30 \text{ days} = 21600$$

total 79200

3. Calculation of lighting, heat and power :-

Power :-

$$\text{Winter} :- ₹ 40 \times 100 \text{ rooms} \times 30\% \times 6 \text{ months} = 7200$$

Lighting :-

$$\text{Summer} :- ₹ 100 \times 100 \text{ rooms} \times 80\% \times 6 \text{ months} = 48000$$

$$\text{Winter} :- ₹ 100 \times 100 \text{ rooms} \times 30\% \times 6 \text{ months} = 18000$$

total 73200



Answer 6) Statement showing computation of profit before closing down division C.

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Particulars	Division A ₹	Division B ₹	Division C ₹	Total ₹
i Sales	112000	56000	94000	252000
ii Variable cost				
material	14000	7000	14000	35000
labour	5600	7000	22400	35000
expenses	14000	7000	28000	49000
iii Variable cost (total)	33600	21000	64400	1,19000
iv Contribution (i-iii) (Sales - variable cost)	78400	35000	19600	1,33000
v fixed cost	28000	14000	28000	70000
vi profit (iv-v)				63000

Statement showing computation of profit after closing down division C

Particulars	Division A	Division B	Total
i Sales	112000	56000	168000
ii Variable cost			
material	14000	7000	21000
labour	5600	7000	12600
expenses	14000	7000	21000
iii Variable cost (total)	33600	21000	54600
iv Contribution (i-iii)	78400	35000	113400
v fixed cost			70000
profit (iv-v)			43400

If Division C is closed down then there is a reduction in the overall profit by ₹19,600 (63,000 - 43,400). There is no possibility of reducing the fixed cost of Division C, so as long as there is a contribution from division C, it should not be closed down.

Answer 7)

i) actual productive hours during last year =
 $= 445000 - 15000$ (5% of 30,000 hours)
 $= 430000$ hours

ii) sales during last year = ₹ 8303300

iii) productive hours left in current year = 1,00,000 hours

∴ loss in sales during current year = $\frac{8303300}{430000} \times 1,00,000$

= ₹ 1931000

and loss in contribution = 20% of ₹ 1931000
= ₹ 386200

Computation of profit foregone during the current year

Particulars	₹
Contribution lost	386200
settlement cost due to leaving	43820
recruitment cost	26740
selection cost	12750
training cost	30490
profit foregone	500000

