

COMPANY ACCOUNTS COST AND MANAGEMENT ACCOUNTING

Time allowed : 3 hours

Maximum marks : 100

NOTE : All working notes should be shown distinctly.

PART A

(Answer Question No. 1 which is compulsory
and any two of the rest from this part)

Question 1

- (a) State, with reasons in brief, whether the following statements are correct or incorrect:
- (i) Interest on debentures is payable only when there is profit.
 - (ii) An underwriter while entering into a contract for issue of shares should be a company.
 - (iii) Partly paid-up preference shares can be redeemed.
 - (iv) Dividend can be paid on calls-in-advance.
 - (v) Interest cannot be paid out of capital during construction period.
- (2 marks each)
- (b) Choose the most appropriate answer from the given options in respect of the following :
- (i) As per the provisions laid down in Table-A of Schedule-I of the Companies Act, 1956, the amount of call as the percentage of the face value of shares should not exceed —
 - (a) 10%
 - (b) 25%
 - (c) 20%
 - (d) None of the above.
 - (ii) The minimum percentage of the face value of shares that should be called for as application money is —
 - (a) 5
 - (b) 10
 - (c) 15
 - (d) 20.
 - (iii) Debentures issued as collateral security will be debited to —
 - (a) Bank account
 - (b) Debentures suspense account
 - (c) Debentures account
 - (d) Collateral security account.

- (iv) *Preliminary expenses are —*
- (a) *Current liability*
 - (b) *Current assets*
 - (c) *Fictitious assets*
 - (d) *Contingent liability.*
- (v) *As per section 77A of the Companies Act, 1956, every buy-back should be completed within a period of —*
- (a) *3 months from the date of passing special resolution*
 - (b) *12 months from the date of passing special resolution*
 - (c) *6 months from the date of passing special resolution*
 - (d) *1 month from the date of passing special resolution. (1 mark each)*
- (c) *Re-write the following sentences after filling-in the blank spaces with appropriate word(s)/figure(s) :*
- (i) *Issue of debentures to vendors is known as issue of debentures _____.*
 - (ii) *Profit prior to incorporation should be credited to _____ account.*
 - (iii) *If forfeited shares are re-issued at a discount, the amount of discount should in no case exceed the amount credited to _____.*
 - (iv) *Accounting standards are formulated under the authority of the _____.*
 - (v) *Yield basis valuation of shares may take the form of valuation based on rate of return and _____. (1 mark each)*

Answer 1(a)

- (i) **Incorrect** : Interest on debentures is payable and obligatory on the part of a company issuing it irrespective of the fact whether the company carries profit or not. It is a charge against profit. Hence, interest is payable even if no profit is earned by the company.
- (ii) **Incorrect** : The underwriters may be individuals/partnership firms or joint stock companies.
- (iii) **Incorrect** : As per Section 80 of the Companies Act, 1956 unless the partly paid preference shares are fully paid-up they cannot be redeemed.
- (iv) **Incorrect** : Calls in advance is not to be treated as part of the paid-up capital and as such they cannot rank for payment of dividend.
- (v) **Incorrect** : Interest can be paid out of capital during construction period subject to certain conditions. As per Section 208, of the Companies Act, 1956 payment of interest during the period of construction should be charged to capital and as such the amount of interest, so paid should be added to the cost of the respective asset as part of the cost of construction.

Answer 1(b)

- (i) 25%
- (ii) 5
- (iii) Debentures suspense account
- (iv) Fictitious assets
- (v) 12 months from the date of passing special resolution.

Answer 1(c)

- (i) Issue of debentures to vendors is known as issue of debentures **for consideration other than cash**.
- (ii) Profit prior to incorporation should be credited to **capital reserve** account.
- (iii) If forfeited shares are re-issued at a discount, the amount of discount should in no case exceed the amount credited to **shares forfeited account**.
- (iv) Accounting standards are formulated under the authority of the **Council of the Institute of Chartered Accountants of India**.
- (v) Yield basis valuation of shares may take the form of valuation based on rate of return and **productivity factor**.

Question 2

- (a) What is amortisation period of intangible assets ? Can useful life of the intangible assets exceed the period of legal rights ? (6 marks)
- (b) Suraj Ltd. issued to public 1,50,000 equity shares of Rs. 100 each at par. Rs. 60 per share were payable along with the application and the balance on allotment. This issue was underwritten equally by A, B, and C for a commission of 3%. Applications for 1,40,000 shares were received as per details given below :

Underwriter	Firm Underwriting Applications	Marked Applications	Total Applications
A	5,000	40,000	45,000
B	5,000	46,000	51,000
C	3,000	34,000	37,000
Unmarked Applications	—	—	7,000
			<u>1,40,000</u>

It was agreed to credit the unmarked applications to A and C. Suraj Ltd. accordingly made the allotment and received the amounts due from the public. The underwriters settled their accounts.

You are required to — (i) prepare a statement of liability of the underwriters assuming that the benefit of firm underwriting is given to individual underwriters; and (ii) journalise the above transactions (including cash) in the books of Suraj Ltd. (6 marks)

- (c) Give the necessary journal entries both at the time of issue and redemption of debentures in the following case :

Eagle Ltd. issued Rs. 1,00,000, 15% debentures of Rs. 100 each at a discount of 5%, but redeemable at a premium of 5% at the end of 4 years. (3 marks)

Answer 2(a)

The depreciable amount of an intangible asset should be allocated on a systematic basis over the best estimate of its useful life. There is rebuttable presumption that the useful life of an intangible asset will not exceed ten years from the date when the asset is available for use. Amortisation should commence when asset is available for use.

As the future economic benefits embodied in an intangible asset are consumed overtime, the carrying amount of the assets is reduced to reflect that consumption. This is achieved by systematic allocation of the cost of assets, less any residual value, as an expense over the assets useful life. Amortisation is recognized whether or not there has been an increase in, for example, the assets fair value or recoverable amount.

In some cases, there may be persuasive evidence that the useful life of an intangible asset will be as specific period longer than ten years. In these cases, the presumption that the useful life generally does not exceed ten years is rebutted and the enterprise :

- (i) Amortises the intangible asset over the best estimate of its useful life;
- (ii) Estimates the recoverable amount of the intangible asst at least annually in order to identify any impairment loss.
- (iii) Discloses the reasons why the presumption is rebutted and the factor(s) that played a significant role in determining the useful life of the asset.

The useful life of an intangible asset may be very long but it is always finite. Uncertainty justifies estimating the useful life of an intangible asset on a prudent basis, but it does not justify choosing a life that is unrealistically short.

If control over the future economic benefits from an intangible asset is achieved through legal rights that have been granted for a finite period, the useful life of the intangible assets should not exceed the period of the legal rights unless :

- (i) The legal rights are renewable
- (ii) Renewal is virtually certain.

Answer 2(b)**In the Books of Suraj Ltd.****Statement showing number of shares to be taken-up by each underwriter**

	<i>Shares</i>			
<i>Particulars</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>Total</i>
No. of shares underwritten	50,000	50,000	50,000	1,50,000
Less : Firm underwriting	5,000	5,000	3,000	13,000
	45,000	45,000	47,000	1,37,000
Less : Marked Applications	40,000	46,000	34,000	1,20,000
	5,000	(1000)	13,000	17,000
Less : Unmarked Applications (1:1)	3,500	—	3,500	7,000
Less : Surplus of B's shares transferred (1:1)	1,500 500	(1000) (1000)	9,500 500	10,000 —
Net liability	1,000	—	9,000	10,000
Add : Firm underwriting	5,000	5,000	3,000	13,000
Total Liability	6,000	5,000	12,000	23,000

Journal Entries

<i>Particulars</i>	<i>Dr.(Rs.)</i>	<i>Cr.(Rs.)</i>
Bank A/c Dr To Share Application A/c (Application money on 1,40,000 shares)	84,00,000	84,00,000
A A/c Dr B A/c Dr To Share Application Account (Application money due from A and B on shares unsubscribed)	60,000 5,40,000	6,00,000
Underwriting Commission Dr To A A/c To B A/c To C A/c (Underwriting commission due)	4,50,000	1,50,000 1,50,000 1,50,000

<i>Particulars</i>		<i>Dr.(Rs.)</i>	<i>Cr.(Rs.)</i>
A A/c	Dr	90,000	
B A/c	Dr	1,50,000	
To Bank A/c			2,40,000
(Excess amount paid to A and B)			
Bank A/c	Dr	3,90,000	
To C			3,90,000
(Balance amount of application money received from C)			
Share Application A/c	Dr	90,00,000	
To Share Capital A/c			90,00,000
(Transfer of Application money)			
Share Allotment A/c	Dr	60,00,000	
To Share Capital A/c			60,00,000
(Money due on allotment)			
Bank A/c	Dr	60,00,000	
To Share Allotment A/c			60,00,000
(Amount received on allotment)			

Answer 2(c)**Journal Entries**

<i>Particulars</i>		<i>Dr.(Rs.)</i>	<i>Cr.(Rs.)</i>
Bank A/c	Dr	95,000	
Loss on Issue of Debentures A/c	Dr.	10,000	
To 15% Debentures A/c			1,00,000
To Premium on Redemption of Debentures A/c			5,000
(Being the issue of debentures at a discount of 5% to be redeemed at 5% premium)			
Profit & Loss Appropriation A/c	Dr.	1,00,000	
To General Reserve A/c			1,00,000
(Being transfer of amount equivalent to the nominal value of debenture redeemed out of profit)			
15% Debentures A/c	Dr.	1,00,000	
Premium on Redemption of Debenture A/c	Dr.	5,000	
To Debenture holders A/c			1,05,000
(Being amount due on redemption)			
Debenture holders A/c	Dr.	1,05,000	
To Bank A/c			1,05,000
(Being the payment made to debenture holders)			

Question 3

- (a) On the basis of following information, compute the value of an equity share and a preference share of both Chelsi Ltd. and Nensi Ltd. — (i) when only a few shares are sold; and (ii) when controlling shares are to be sold :

	Chelsi Ltd. (Rs.)	Nensi Ltd. (Rs.)
Profit after tax	10,00,000	10,00,000
12% Preference share capital (shares of Rs.100 each)	10,00,000	20,00,000
Equity share capital (shares of Rs.10 each)	50,00,000	40,00,000
Assume that market expectation for both companies is 15%; and 80% of the profits are distributed. (6 marks)		

- (b) What do you understand by 'provision for taxation' ? What factors are to be considered while estimating the provision for taxation ? (6 marks)
- (c) Ronny Ltd. forfeited 200 shares of Rs. 10 each, Rs. 8 per share being called-up on which a shareholder paid application and allotment money of Rs. 5 per share but did not pay the first call money of Rs. 3 per share. Of these forfeited shares, 150 shares were subsequently re-issued by the company as fully paid-up for Rs.8 per share. Give journal entries for the forfeiture and re-issue of shares. (3 marks)

Answer 3(a)**Valuation of Equity Share**

	Chelsi Ltd.	Nensi Ltd.
Profit after tax (Rs.)	10,00,000	10,00,00
Less : Pref. Dividend (Rs.)	1,20,000	2,40,000
Profits available to equity shareholders (Rs.)	8,80,000	7,60,000
No. of equity shares	5,00,000	4,00,000
Earning per share	8,80,000 5,00,000 = 1.76	7,60,000 4,00,000 = 1.90
Profit to be distributed	80%	80%
Dividend per share	80% of 1.76 = Rs.1.408	80% of 1.90 = Rs.1.52
(i) When few shares are sold :		
Value of Share	1.408/15x100 = Rs. 9.39	1.52/15x100 = Rs.10.13
(ii) When controlling shares are sold :		
Value of Share	1.76/15x100 = Rs.11.73	1.90/15x100 = Rs.12.67

Valuation of Preference Shares

In the given problem, no separate market expectation rate is given for preference shares. Since preference shares are fixed-dividend bearing shares, they have a slightly lesser capitalization rate say 13% in this case. Further, Chelsi Ltd. has better preference dividend coverage of 8.83 (10,00,000/1,20,000) as compared to Nensi Ltd.'s coverage of 4.17 (10,00,000/2,40,000). Accordingly, market expectation rate for Nensi Ltd. should be slightly more say by 0.50%. Thus, market expectation rate for Chelsi Ltd. and Nensi Ltd. have been taken as 13% and 13.5% respectively. (This rate is subjective)

	<i>Chelsi Ltd.</i>	<i>Nensi Ltd.</i>
Rate of Dividend	12%	12%
Market Expectation Rate	13%	13.5%
Value of a Preference Share	12/13x100	12/13.5 x 100
	<u>= Rs. 92.31</u>	<u>= Rs. 88.99</u>

Answer 3(b)

As per Clause 3(vi) of Part II, Schedule VI, the Profit and Loss Account of a company must set out the amount of charge for Indian income-tax and other Indian taxation on profits, including where practicable, with Indian Income-tax, any taxation imposed elsewhere to the extent of the relief, if any, from Indian Income-tax and distinguishing, where practicable, between income- tax and other taxation.

A company is liable to pay income-tax or tax on profits under the Income-tax Act, 1961 and such tax is treated as charge against the profits of the accounting year, although the profits are assessed and actual liability for tax is determined in the following year. Moreover, the assessable profits (taxable profits) are seldom the same as accounting profits. As such it is not possible to determine the actual amount of tax payable at the time the final accounts are prepared. Therefore, liability for tax is estimated and provided for while preparing the final accounts. Such provision is debited to profit and loss account and credited to provision for taxation account.

While making the estimate of provision for taxation, due consideration should be given to the following points:

- (i) Whether the net profit has been determined after deducting depreciation according to Income-tax Act and managerial remuneration.
- (ii) Whether income-tax has been computed at the rates prescribed.
- (iii) Whether profit sur-tax is payable or not.
- (iv) Whether capital gains tax is payable or not.
- (v) Whether penalty is payable under any tax laws.
- (vi) Whether rebates are available for double taxation.
- (vii) Whether investment allowance, extra shift allowance, etc., if any, have been duly deducted or not in estimating the tax liability.
- (viii) Whether adjustment has made for the last year's actual tax liability or not.

Answer 3(c)**Journal Entries**

<i>Particulars</i>	<i>Dr. (Rs)</i>	<i>Cr. (Rs.)</i>
Share Capital A/c (200 x Rs. 8) Dr	1,600	
To Share Forfeited A/c (200 x Rs.5)		1,000
To Share First Call A/c (200 x Rs.3)		600
(Forfeiture of 200 shares of Rs.10/- each Rs.8 being called-up for non-payment of first call money of Rs.3 per share as per Board's resolution dated.....)		
Bank A/c (150 x Rs. 8) Dr.	1,200	
Share Forfeited A/c Dr.	300	
To Share Capital A/c		1,500
(Re-issue of 150 forfeited shares of Rs.10 each as fully paid for Rs.8 per share i.e. at a discount of Rs.2 per share as per Board's Resolution dated.....)		
Share Forfeited A/c Dr.	450	
To Capital Reserve A/c		450
(Transfer of capital profit proportionate to forfeited shares re-issued i.e. on 150 shares to Capital Reserve A/c)		

Question 4

(a) *Anuj Ltd. had an accumulated amount of general reserve of Rs.5,00,000. The directors of Anuj Ltd. decided to declare bonus shares out of the general reserve and to utilise the dividend in the following manner :*

- (i) *To make 10,000 partly paid shares of Rs.10 each paid-up at Rs.6 each, as fully paid-up.*
- (ii) *To distribute 4 fully paid bonus shares of Rs.10 each at Rs.12 each, for 5 fully paid existing 20,000 shares of Rs.10 each.*

Show journal entries in the books of Anuj Ltd. to give effect to the above adjustments. (6 marks)

(b) *"Issue of bonus shares by the subsidiary company does not affect the cost of control." Comment.* (6 marks)

(c) *"Accounting Standards are mandatory for all companies." Comment.*

(3 marks)

Answer 4(a)**In the Books of Anuj Ltd.****Journal entries**

<i>Particulars</i>	<i>Dr. (Rs)</i>	<i>Cr. (Rs.)</i>
Equity Share Final Call A/c Dr. To Equity Share Capital A/c (Being final call money due on 10,000 shares @ Rs.4/- each as per Board's Resolution dated.....)	40,000	40,000
General Reserve A/c Dr. To Bonus to Shareholders A/c (Being bonus payable on 10,000 shares @ Rs.4 each as per shareholders' resolution dated.....)	40,000	40,000
Bonus to Shareholders A/c Dr. To Equity Share Final Call A/c (Being utilization of bonus towards final call)	40,000	40,000
General Reserve A/c Dr. To Bonus to Shareholder A/c (Being bonus shares payable in the ratio 5:4 of Rs.10/- each at Rs. 12 as per shareholders' resolution dated.....)	1,92,000	1,92,000
Bonus to shareholders A/c Dr. To Equity Share Capital A/c To Security Premium A/c (Being issue of 16,000 bonus shares of Rs.10/- each at Rs.12 per shareholders' resolution dated...)	1,92,000	1,60,000 32,000

Answer 4(b)

The issue of bonus shares by the subsidiary company will increase the number of shares held by the holding company as well as the minority shareholders. Issue of bonus shares may or may not affect the cost of control depending upon whether such shares are issued out of capital profits or revenue profits.

- (a) *Issue of bonus shares out of capital profit (Pre-acquisition profits)* : In this case there will be no effect on accounting treatment because while calculating the cost of control the share of the holding company in pre-acquisition profit is reduced because of capitalisation of profit and the paid-up value of shares held

in subsidiary company is increased. Hence there is no effect on cost of control when bonus shares are issued from pre-acquisition profit.

- (b) *Issue of bonus shares out of post acquisition profit* : In this case, a part of the revenue profits will get capitalised resulting in decrease of cost of control or increase in capital reserve.

Answer 4(c)

As per Section 211 (3A, 3B & 3C) of the Companies Act, 1956, the Accounting Standards recommended by the Institute of Chartered Accountants of India and prescribed by Central Government in consultation with National Advisory Committee on Accounting Standards are mandatory and applicable to all companies while preparing profit and loss account and balance sheet. Where the profit and loss account and balance sheet of the company do not comply with the accounting standards it must disclose in its profit and loss account and balance sheet the deviation from the accounting standards, reasons for the deviation and the financial effect, if any, arising due to such deviation.

PART B

(Answer Question No. 5 which is compulsory and any two of the rest from this part)

Question 5

- (a) *State, with reasons in brief, whether the following statements are correct or incorrect:*
- (i) *All long-term costs are controllable.*
 - (ii) *Rent on own building is not included in cost accounts.*
 - (iii) *Under differential piece rate of incentive scheme, there is no encouragement to improve the performance of the workers.*
 - (iv) *By job rotation, labour turnover can be controlled/reduced upto some extent.*
 - (v) *Administration overheads are incurred due to management policy and they are easily controllable.* (2 marks each)
- (b) *Choose the most appropriate answer from the given options in respect of the following :*
- (i) *The most suitable cost system where the products differ in type of materials and work performed is —*
 - (a) *Job costing*
 - (b) *Process costing*
 - (c) *Operating costing*
 - (d) *None of the above.*
 - (ii) *Current liabilities are equal to —*
 - (a) *Working capital + current assets*
 - (b) *Working capital – current assets*
 - (c) *Current assets – working capital*
 - (d) *Current assets + working capital.*

- (iii) *Non-controllable cost is the cost which —*
- (a) *Is not subject to control at any level of managerial supervision*
 - (b) *Cannot be controllable during a particular financial year*
 - (c) *Cannot be controllable at any cost*
 - (d) *None of the above.*
- (iv) *Re-ordering level is equal to —*
- (a) *Maximum consumption x minimum re-order period*
 - (b) *Maximum consumption x maximum re-order period*
 - (c) *Minimum consumption x minimum re-order period*
 - (d) *Normal usage x normal delivery period.*
- (v) *A budget designed to remain unchanged irrespective of the level of activity actually attained is called —*
- (a) *Master budget*
 - (b) *Fixed budget*
 - (c) *Current budget*
 - (d) *Flexible budget.* (1 mark each)
- (c) *Re-write the following sentences after filling-in the blank spaces with appropriate word(s)/figure(s) :*
- (i) *Material losses due to abnormal reasons should be transferred to _____.*
 - (ii) *_____ determines the priorities of functional budgets.*
 - (iii) *The ratio of total liquid assets to current liabilities is known as _____.*
 - (iv) *Break-even chart is the graphical relationship between _____.*
 - (v) *_____ is the allotment of proportion of items of cost to cost centre/ cost units.* (1 mark each)

Answer 5(a)

- (i) **Correct** : Normally all variable costs are controllable and all fixed costs are not controllable in short run but all costs whether variable or fixed cost are controllable in long-run/terms.
- (ii) **Correct** : Rent on own building is not recorded in the books but they are important in decision making and comparing alternatives. This cost is treated as imputed or notional costs and do not enter into traditional accounting systems.
- (iii) **Incorrect** : Under differential piece rate of incentive scheme efficient and inefficient workers are distinguished. Efficient workers who attain or perform better than the standard are given a higher piece rate and inefficient workers are given a lower rate. Hence, there is encouragement to improve the performance of workers.
- (iv) **Correct** : Job rotation is within the organization and due to this, workers can be satisfied and they do not try to leave the organization.
- (v) **Incorrect** : Since administration overheads are fixed in nature and are incurred

due to management policy, they are usually non-controllable and difficult to control.

Answer 5(b)(i)

- (a) Job costing

Answer 5(b)(ii)

- (c) Current assets – working capital

Answer 5(b)(iii)

- (a) Is not subject to control at any level of managerial supervision.

Answer 5(b)(iv)

- (b) Maximum consumption x maximum re-order period

Answer 5(b)(v)

- b) Fixed budget.

Answer 5(c)

- (i) Material losses due to abnormal reasons should be transferred to **Costing Profit & Loss Account**.
- (ii) **Budget key factor/Principal budget factor** determines the priorities of functional budgets.
- (iii) The ratio of total liquid assets to current liabilities is known as **Liquid ratio/ Acid test ratio/ Quick ratio**.
- (iv) Break-even chart is the graphical relationship between **Cost volume and profit**.
- (v) **Apportionment** is the allotment of proportion of items of cost to cost centre/ cost units.

Question 6

- (a) The sales turnover and profit during two periods were as follows :

Period-1 — Sales : Rs.20 lakh; and Profit : Rs.2 lakh

Period-2 — Sales : Rs.30 lakh; and Profit : Rs.4 lakh

Calculate :

- (i) *P/V ratio;*
 - (ii) *Sales required to earn a profit of Rs.5 lakh; and*
 - (iii) *Profit when sales are Rs.10 lakh.* (6 marks)
- (b) The total overhead expenses of a factory are Rs.4,46,380. Taking into account the normal working of the factory, overheads were recovered from production at Rs.1.25 per hour. The actual hours worked were 2,93,104. How would you

proceed to close the books of account, assuming that besides 7,800 units produced of which 7,000 were sold ? There were 200 equivalent units in work-in-progress.

On investigation, it was found that 50% of the unabsorbed overheads were on account of increase in the cost of indirect material and indirect labour and the other 50% was due to factory's inefficiency. (6 marks)

(c) *What are the limitations of 'management accounting' ?* (3 marks)

Answer 6(a)

(i) Calculation of P/V Ratio

	Period 1	Period 2	Increase in period 2 over period 1
Sales (Rs.)	20,00,000	30,00,000	10,00,000
Profit (Rs.)	2,00,000	4,00,000	2,00,000
Increase in Costs (Rs.)			<u>8,00,000</u>

Since fixed costs are constant, the increase in costs is due to increase in variable cost in tune with increase in sales volume. As such variable costs are 80% of sales.

Thus, P/V Ratio = 20%.

$$\begin{aligned}\text{Alternatively, P/V Ratio} &= \frac{\text{Change in Profit}}{\text{Change in Sales}} = \frac{\text{Rs. 2,00,000}}{\text{Rs. 10,00,000}} \times 100 \\ &= 20\%\end{aligned}$$

(ii) Calculation of sales required to earn a profit of Rs.5 lakhs

Fixed Expenses = Contribution – Net Profit

$$= 20\% \text{ of } 30,00,000 - 4,00,000 = \text{Rs. 2,00,000}$$

$$\text{Required Sales} = \frac{\text{Fixed Expenses} + \text{Desired Profit}}{\text{P/V Ratio}}$$

$$= \frac{\text{Rs. 2,00,000} + 5,00,000}{20\%}$$

$$= \text{Rs.35,00,000}$$

(iii) Profit at Sales of Rs.10 lakhs

$$= \text{Sales} \times \text{P/V Ratio} - \text{Fixed Expenses}$$

$$= \text{Rs. 10 lakhs} \times 20\% - \text{Rs. 2,00,000}$$

$$= \text{Rs. 2,00,000} - \text{Rs. 2,00,000} = \text{Nil}$$

Answer 6(b)

Unabsorbed overheads :	(Rs.)
Overhead recovered from production = (2,93,104 hrs x Rs. 1.25) =	3,66,380
Actual Overheads	= 4,46,380
Unabsorbed overheads	<u>80,000</u>

Out of the total unabsorbed overheads of Rs.80,000, 50% was due to increase in the cost of indirect material and labour. The amount of Rs.40,000 (50% of Rs.80,000) should, therefore, be charged to units produced by means of supplementary rate.

Unabsorbed overhead	=	Rs. 40,000
Units produced	=	8000

$$\text{Supplementary Rate} = \text{Rs. } \frac{40,000}{8,000} = \text{Rs.5/- per unit}$$

Apportionment of Overheads:

The amount of overheads of Rs.40,000 will be apportioned between cost of sales, finished goods and work in progress as follows :

Cost of Sales Account	=	7,000 x Rs. 5	=	35,000
Finished goods Account	=	800 x Rs. 5	=	4,000
Work-in-progress Account	=	200 x Rs. 5	=	1,000
				<u>Rs. 40,000</u>

The balance of Rs. 40,000 (50% of 80,000) which represents unabsorbed overheads on account of factory's inefficiency (an abnormal factor) should be transferred to Costing Profit and Loss Account.

Answer 6(c)**Limitations of management accounting**

The management accountant has the responsibility of producing and providing dependable accounting and other relevant data for the use of management. The following are the limitations of management accounting:

- (1) *Different meaning of the same term* : In accounting different terms carry different meanings under different set of circumstances and conditions. The most common source of confusion is the word 'cost'. There are historical costs, full costs, direct costs, variable costs, standard costs, original costs, residual costs, net costs, differential costs, opportunity costs, estimated cost and incremental costs, etc.
- (2) *Approximations* : Management accounting data cannot be completely accurate in all respects. A good deal of approximation is involved in the compilation and preparation of such data.

- (3) *Incompleteness of the data* : Data will not disclose the extent to which the quality and utility of a product is affected by the changes in materials or methods of production. The management should guard itself against the belief that problems could be completely solved by numerical analysis.
- (4) *Importance of proper management action* : A management accountant may provide information and figures in most appropriate form to the management. But figures themselves are nothing more than marks on pieces of paper, and by themselves they accomplish nothing. Anything that the business accomplishes is the result of action of the people.

Question 7

- (a) *A worker under the Halsey Plan of remuneration has a day rate of Rs. 1,200 per week of 48 hours, plus a cost of living bonus of Rs. 10 per hour worked. He is given an 8-hour task to perform, which he accomplishes in 6 hours. He is allowed 30% of the time saved as premium bonus. What would be his total hourly rate of earnings, and what difference would it make if he was paid under the Rowan Plan ?* (6 marks)
- (b) *A chemical manufacturing unit uses Material-A as the basic material. The cost of Material-A is Rs.20 per kg. and the input-output ratio is 120%. Due to a sudden shortage in the market, Material-A becomes non-available and the manufacturing unit is considering the use of one of the following substitutes available :*
- | Material | Material Input-Output Ratio | Rs. Per Kg. |
|----------|-----------------------------|-------------|
| B1 | 135% | 26 |
| B2 | 115% | 30 |
- You are required to recommend which of the above substitutes is to be used. Also indicate additional cost required to be incurred.* (6 marks)
- (c) *Write a note on 'zero base budgeting' (ZBB).* (3 marks)

Answer 7(a)

Standard Time : 8 hours

Time taken : 6 hours

Standard Wages :

Day rate = Rs. 1200 for 48 hours = Rs. 25 per hour

Cost of living bonus = Rs. 10 per hour

Premium bonus = 30% of time saved

Under Halsey Method :

Wages for 6 hours @ Rs.25 per hour Rs. 150

Cost of living bonus for 6 hours @ Rs.10 per hour Rs. 60

Bonus : (Time saved x Rate x 30%) = 2 x Rs. 25 x 30% Rs. 15

Earnings for 6 hours Rs. 225

Hourly rate = Rs. 225/6 = Rs. 37.5

Under Rowan Method :

Wages for 6 hours @ Rs.25 per hour	Rs. 150.00
Cost of living bonus for 6 hours @ Rs.10 per hour	Rs. 60.00
Bonus : (Time saved/Standard Time) x Time taken x Hourly Rate	
= (2 /8) x 6 x 25 =	Rs. 37.50
Earnings for 6 hours	<u>Rs. 247.50</u>

Hourly rate = Rs.247.5/6 = Rs.41.25

Under Rowan plan the worker would get Rs.3.75 more per hour.

Answer 7(b)

Cost of Material in Final Product =(Input/Output) x Rate per unit

Cost of Material A = (120/100) x 20 = Rs.24.00 per kg in the final product.

Cost of Material B1 = (135/100) x 26 = Rs.35.10 per kg in the final product.

Cost of Material B2 = (115/100) x 30 = Rs.34.50 per kg in the final product.

It is evident from the above that Material B2 is cheaper in the final product as its productivity is more inspite of higher price.

Additional cost required to be incurred as compared to original material is Rs.10.50 per kg. of final product (i.e. Rs.34.50 less Rs.24.00).

Answer 7(c)

Zero –base budgeting

Zero-base budgeting is a method of budgeting in which all expenses must be justified for each new period. Zero-based budgeting starts from a “zero base” and every function within an organization are analyzed for its needs and costs. Budgets are then built around what is needed for the upcoming period, regardless of whether the budget is higher or lower than the previous one. Zero-base budgeting allows top-level strategic goals to be implemented into the budgeting process by tying them to specific functional areas of the organization, where costs can be first grouped, then measured against previous results and current expectations.

The following are the features of zero-base budgeting :

- (i) Concentration of efforts is not simply on “how much” unit will spend but “why” it needs to spend.
- (ii) Choices are made on the basis of what each unit can offer for a specific cost.
- (iii) Individual unit’s objects are linked to corporate targets.
- (iv) Quick budget adjustments can be made if, during the operating year costs are required to maintain expenditure level.
- (v) Participation of all levels in decision-making.

Question 8

- (a) From the following information provided by Jolly Ltd., you are required to prepare the balance sheet :

Current ratio	2.5
Liquidity ratio	1.5
Proprietary ratio	0.75
Working capital	Rs. 6,00,000
Reserves and surplus	Rs. 4,00,000
Bank overdraft	Rs. 1,00,000

There is no long-term loan or fictitious assets. You are also required to show the necessary working notes. (6 marks)

- (b) What are the benefits of cash flow statement ? Mention the parties who are benefited from preparing cash flow statement. (6 marks)
- (c) What is 'margin of safety' ? How may it be improved ? (3 marks)

Answer 8(a)**Working Notes:**

- (1) Current Ratio = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$
- Current Asset = 2.5 (Current liabilities)
- Working Capital = Current assets – Current liabilities
- Rs. 6,00,000 = 2.5 (Current liabilities) – Current liabilities
- Rs. 6,00,000 = 1.5 (Current liabilities)
- Current liabilities = Rs. 4,00,000
- Therefore, Current Assets = Rs. 10,00,000
- (2) Proprietary funds + Current liabilities = Current assets + Fixed assets
- Proprietary Ratio = $\frac{\text{Fixed Assets}}{\text{Proprietary Funds}} = 0.75$ (Given)
- Fixed assets = 0.75 (Proprietary funds)
- Substituting in the equation above
- Proprietary funds + Rs. 4,00,000 = Rs. 10,00,000 + 0.75 (Proprietary funds)
- 0.25 Proprietary funds = Rs. 6,00,000
- Proprietary funds = Rs. 24,00,000
- Hence,
- Fixed assets = 0.75 (24,00,000) = Rs. 18,00,000
- Share capital = Proprietary funds – Reserve and surplus
- = Rs. 24,00,000 – Rs. 4,00,000 = Rs. 20,00,000

$$(3) \text{ Liquid ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}} = 1.50$$

$$\text{Liquid assets} = \text{Rs. } 6,00,000 \text{ i.e. } 1.5 \text{ (Current liabilities)}$$

$$\text{Therefore, stock} = \text{Rs. } 10,00,000 - \text{Rs. } 6,00,000 = \text{Rs. } 4,00,000$$

(i.e. Stock = Current assets – Liquid assets)

Balance Sheet as at.....

Liabilities	Rs.	Assets	Rs.
Capital	20,00,000	Fixed assets	18,00,000
Reserves and surplus	4,00,000	Stock	4,00,000
Bank overdraft	1,00,000	Other current assets	6,00,000
Other current liabilities	3,00,000		
	<u>28,00,000</u>		<u>28,00,000</u>

Note: *Alternatively liquid ratio can be interpreted as:

$$\text{Liquid ratio} = \frac{(\text{Current assets} - \text{Stocks})}{(\text{Current liabilities} - \text{Bank overdraft})}$$

Then the value of stock and other current assets will be changed accordingly.

Answer 8(b)

The following are the benefits of cash flow statement :

A cash flow statement reports cash inflows (receipt) and outflows (payments) of cash and cash equivalents of an organization during a particular period. The purpose of cash flow statement is to provide information about the cash flows associated with the periods of operations and also about the entity's investing and financing activities during the period. The following are the benefits of cash flow statement :

- (i) *Predict future cash flows* : The cash flow statement makes it possible to predict the amounts, timing and uncertainty of future cash flows on the basis of what has happened in the past.
- (ii) *Determine the ability to pay dividends and other commitments* : A cash flow statement indicates the sources and uses of cash under suitable headings such as operating, investing and financing activities. Shareholders are interested in receiving dividends on their investments in the shares. Creditors want to receive their interest and principal amount on time. The statement of cash flows helps investors and creditors to predict whether the business can make these payments.
- (iii) *Show the relationship of net income to changes in the business cash* : Usually

cash and net income move together. High levels of income tend to lead to increase in cash and *vice-versa*. However, a company's cash balance can decrease when its net income is high and cash can increase when income is low. The users want to know the difference between the net profit and net cash provided by operations. The net profit shows the progress of the business during the year while cash flow relates more to the liquidity of the business. The users can assess the reliability of net profit with the help of cash flow statement.

- (iv) *Efficiency in cash management* : Cash flow analysis helps in evaluating financial policies and cash position. It facilitates the management to plan and co-ordinate the financial operations properly. The management can estimate how much funds are needed, from which source they will be derived, how much can be generated internally and how much should be arranged from outside.
- (v) *Discloses the movement cash* : A comparison of cash flow statement for the previous year with the budget for that year would indicate to what extent the resources of the enterprise were raised and applied. A comparison of the original forecast with actual result may highlight trend of movement that might otherwise undetected.
- (vi) *Discloses success or failure of cash planning* : The success or failure of cash planning can be known by comparing the projected cash flow statement with the actual cash flow statement and necessary remedial measures can be taken. Moreover, it provides a better measure for inter-period and inter-firm comparison.
- (vii) *Evaluate management decisions* : The statement of cash flows reports the company's investing and financing activities and thus gives the investors and creditors about cash flow information for evaluating managers' decisions.

Parties benefited from preparing cash flow statement as follows :

- (i) Shareholders
- (ii) Lenders
- (iii) Employees
- (iv) Suppliers
- (v) Local bodies, etc.

Answer 8(c)

Margin of safety

Margin of safety is the difference between the actual sales and sales at break-even point. It is calculated as follows:

Margin of Safety = Total Sales – Break-even Sales

Or Margin of Safety = $\frac{\text{Profit}}{\text{P / V ratio}}$

The margin of safety may be improved by taking the following steps:

- (i) Lowering fixed costs.
 - (ii) Lowering variable costs so as to improve marginal contribution.
 - (iii) Increasing volume of sales, if there is unused capacity.
 - (vi) Increasing the selling price, if market conditions permit.
 - (v) Changing the product mix as to improve contribution, and
 - (vi) Modernization of production facilities and introduction of cost effective technology.
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