

COMPANY ACCOUNTS, COST AND MANAGEMENT ACCOUNTING

Time allowed : 3 hours

Maximum marks : 100

NOTE: All working notes should be shown distinctly.

PART—A

Question 1

- (a) State, with reasons in brief, whether the following statements are correct or incorrect :

- (i) Accounting policies vary from enterprise to enterprise.
- (ii) In the absence of declaration of dividend, there is no need to provide for depreciation in the accounts of companies.
- (iii) Securities premium money can be distributed as dividend.
- (iv) For calculating minority interest, there is a need to distinguish between capital and revenue profits of the subsidiary.
- (v) While preparing the consolidated balance sheet, a contingent liability in respect of a transaction between the holding and the subsidiary companies is disappeared from the foot note.

(2 marks each)

- (b) Choose the most appropriate answer from the given options in respect of the following :

- (i) Indian accounting standards are formulated under the authority of the —
 - (a) Council of the Institute of Chartered Accountants of India
 - (b) National Advisory Committee on Accounting Standards
 - (c) International Accounting Standard Board
 - (d) Accounting Standard Board.
- (ii) As per section 79 of the Companies Act, 1956 from the date of receiving the sanction of the Central Government, a company must issue shares at discount within a period of —
 - (a) One month
 - (b) Two months
 - (c) Three months
 - (d) Six months.
- (iii) As per section 387 of the Companies Act, 1956, total remuneration to manager should not exceed the rate of net profit of the company except with approval of the Central Government —
 - (a) 5%
 - (b) 2%
 - (c) 11%
 - (d) 10%.

- (iv) Profit on cancellation of own debentures should be transferred to —
- Profit and loss account
 - Profit and loss appropriation account
 - Capital reserve account
 - Reserve capital account.
- (v) Profit prior to incorporation is transferred to —
- General reserve
 - Capital reserve
 - Goodwill account
 - Profit and loss account. (1 mark each)
- (c) Re-write the following sentences after filling-in the blank spaces with appropriate word(s)/figure(s) :
- Goodwill is _____ asset.
 - Preliminary expenses being of capital nature may be written-off against _____.
 - Collateral security implies _____ security given for a loan.
 - Interim dividend is a dividend declared at any time between the _____ where the final dividend is declared.
 - Stock reserve for unrealised profit in respect of inter-company transactions should be created by debiting _____ and crediting _____ while preparing consolidated profit and loss account. (1 mark each)

Answer 1(a)

- Correct:** Accounting policies vary from enterprise to enterprise based on the circumstances/practices of the industry. Accounting policies refer to the specific accounting principles and the methods of applying those principles adopted by the enterprise in the preparation and presentation of financial statements. Variations may be in the following areas, such as – method of depreciation, depletion; valuation of inventories; valuation of investments; expenditure during construction, etc.
- Incorrect:** Depreciation represents wear and tear of assets due to constant use. Unless depreciation is provided for, the accounts will not reflect a “true and fair” view of the state of affairs of the company. Further, capital will not be kept intact, unless the depreciation is charged. Hence, even if no dividend is declared, depreciation is to be provided for in the accounts of companies.
- Incorrect:** Under Section 78 of the Companies Act, 1956, it is stated that securities premium may be utilized in paying up unissued shares as bonus shares, writing off preliminary expenses, writing off expenses or commission or discount on issue of shares/debentures and providing for premium on redemption of redeemable preference shares/debentures. The balance in securities premium account will appear under the head Reserve and Surplus

in the balance sheet. Securities premium money is not be used for distribution as dividend.

- (iv) **Incorrect:** Minority shareholders are concerned with their stake in the holding company. Their rights consist in share capital and reserve and surplus. In order to ascertain minority interests, capital profit and revenue profit need not be distinguished.
- (v) **Correct:** If the contingent liabilities relate to outsiders, it must be shown by way a foot note in the consolidated balance sheet. But a contingent liability in respect of a transaction between holding and subsidiary companies (internal contingent liability) will disappear from the foot note as they appear as actual liability in the consolidated balance sheet.

Answer 1(b)

- (i) (a) - Council of the Institute of Chartered Accountants of India.
- (ii) (b) - Two months
- (iii) (a) - 5%
- (iv) (c) - Capital reserve account
- (v) (b) - Capital reserve

Answer 1(c)

- (i) Goodwill is **intangible** asset.
- (ii) Preliminary expenses being of capital nature may be written-off against **capital profit**.
- (iii) Collateral security implies **additional** security given for a loan.
- (iv) Interim dividend is a dividend declared at any time between the **two annual general meetings** where the final dividend is declared.
- (v) Stock reserve for unrealised profit in respect of inter-company transactions should be created by debiting **Consolidated Profit and Loss Account** and crediting **Stock Reserve Account** [(or) debiting **Revenue Profit** and crediting **Stock Account**] while preparing consolidated profit and loss account.

Question 2

- (a) Write short notes on **any two** of the following :
 - (i) Non-acceptability of International Accounting Standards
 - (ii) Capitalisation of profits and reserves
 - (iii) Phases of generation of intangible assets. (3 marks each)
- (b) Following are balance sheets of H Ltd. and S Ltd. as at 31st March, 2009:

Liabilities	H Ltd. (Rs.)	S Ltd (Rs.)
Share capital (Shares of Rs.100 each)	5,00,000	2,00,000

General reserve as on 1st April, 2008	1,00,000	60,000
Profit and loss account	1,40,000	90,000
Bills payable	—	40,000
Creditors	<u>80,000</u>	<u>50,000</u>
	<u>8,20,000</u>	<u>4,40,000</u>
Assets		
Goodwill	40,000	30,000
Other fixed assets	3,60,000	2,20,000
1,500 Shares in S Ltd. at cost	2,40,000	—
Stock	1,00,000	90,000
Debtors	20,000	75,000
Cash at bank	<u>60,000</u>	<u>25,000</u>
	<u>8,20,000</u>	<u>4,40,000</u>

The profit and loss account of S Ltd. showed a balance of Rs.50,000 on 1st April, 2008. A dividend of 15% was paid on 15th October, 2008 for the year 2007-08. The dividend was credited by H Ltd. to its profit and loss account. H Ltd. acquired shares on 1st October, 2008. The bills payable of S Ltd. were all issued in favour of H Ltd. and the same were got discounted by H Ltd. Included in the creditors of S Ltd. are Rs.20,000 for goods supplied by H Ltd. The stock of S Ltd. includes goods to the value of Rs.8,000 which were supplied by H Ltd. at a profit of 33.33% on cost. Prepare consolidated balance sheet of H Ltd. and S Ltd. as on 31st March, 2009. (9 marks)

Answer 2(a)

(i) Non-acceptability of International Accounting Standards

Accounting practices in different countries vary due to divergent legislative requirements, social and economic conditions, long standing practices, tax structure and organized professional accounting. Often, multinational companies have a different viewpoint than national companies. Worldwide conflicts of views have been noticed in the national standards setting bodies and international bodies. There is a glaring diversity in accounting practices in different countries which require harmonization for evolving uniform accounting standards for world wide application. Western countries have comparatively greater access to international standards setting agencies. These factors are the primary reason for non acceptability of international Accounting Standards throughout the world.

However, in the present era of globalization and liberalization, the world has become a global village. A number of multinational companies have established their business in emerging economies. This has resulted in adoption or convergence of International Accounting Standards or International Financial Reporting Standards by national standards setting bodies.

(ii) Capitalisation of profits and reserves

When a company accumulates huge reserves out of its profits which is much in excess of the needs of the company, the excess amount can be distributed by way of

bonus shares among the existing shareholders of the company. Thus, the accumulated profits and reserves of the company are converted into its share capital which is permanently used in the business. This process is also known as “capitalisation of profits and reserves”. Capitalisation of accumulated profits and reserves of a company is possible only if the Articles of the company contain such provision. The basic characteristics of bonus shares are the following:

- (1) Bonus shares are issued to the existing shareholders.
- (2) Bonus shares are always fully paid up.
- (3) Right to renunciation is not available in respect of bonus shares.

Bonus shares can be issued out of the following:

- (i) Balance in the Profit and Loss Account;
- (ii) General Reserves or other Reserves created out of the profits;
- (iii) Realised capital profits and reserves;
- (iv) Securities Premium Account;
- (v) Capital Redemption Reserve Account.

(iii) Phases of generation of intangible assets

Internally generated goodwill should not be recognized as an Intangible Asset. An enterprise classifies the generation of Intangible assets into – (a) a research phase; (b) a development phase.

Research Phase – No intangible asset arising from the research (or from the research phase of an internal project) should be recognized. Expenditure on research (or on the research phase of an internal project) should be recognized as an expenses when it is incurred.

Development Phase – An intangible asset arising from development (or from the development phase of an internal project) should be recognized if, and only if, an enterprise can demonstrate all of the followings :

- (a) The technical feasibility of completing the intangible assets so that it will be available for use or sale.
- (b) Its Intention to complete the intangible assets and use or sell it.
- (c) Its ability to use or sell the intangible asset.
- (d) How the intangible assets will generate probable future economic benefits.
- (e) The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible assets.
- (f) Its ability to measure the expenditure attributable to the intangible assets during its development reliably.

Answer 2(b)**Consolidated Balance Sheet of H Ltd. and S Ltd. as on March 31, 2009**

<i>Liabilities</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Assets</i>	<i>Rs.</i>	<i>Rs.</i>
Share Capital: 5,000 Shares of Rs.100 each		5,00,000	Fixed Assets: Goodwill	70,000	
Minority Interest		87,500	Less: Capital Reserve	<u>18,750</u>	51,250
General Reserve		1,00,000			
Profit & Loss A/c	1,40,000		Other Fixed Assets:		
Add: Post acquisition profit	<u>26,250</u>		H Ltd.	3,60,000	
	1,66,250		S Ltd.	<u>2,20,000</u>	5,80,000
Less: Pre- acquisition			Cash at Bank		85,000
Dividend	22,500		Sundry Debtors		75,000
Unrealised Profit	<u>2,000</u>	1,41,750	(Rs. 20,000 + Rs. 75,000 – Rs. 20,000)		
Bills Payable		40,000	Stock		
Sundry Creditors :			H Ltd.	1,00,000	
H Ltd.	80,000		S Ltd.	<u>90,000</u>	
S Ltd.	<u>50,000</u>			1,90,000	
	1,30,000		Less:		
Less: Common debts	<u>20,000</u>	<u>1,10,000</u>	Unrealised Profit	<u>2,000</u>	<u>1,88,000</u>
		<u>9,79,250</u>			<u>9,79,250</u>

Working Note:**(i) S Ltd.'s Profit and Loss Account**

<i>Particulars</i>	<i>Rs.</i>	<i>Particulars</i>	<i>Rs.</i>
To Dividend for 2007-08 @ 15% on Rs.2,00,000	30,000	By Balance b/d	50,000
To Balance c/d	<u>90,000</u>	By Net profit for the year (balancing figure)	<u>70,000</u>
	<u>1,20,000</u>		<u>1,20,000</u>

Net profit for the year ended 31st March, 2009 = Rs.70,000

Net profit for six months, i.e., Post-acquisition Profits = Rs.70,000 x 6/12
= Rs.35,000

H Ltd.'s share = 75% of Rs.35,000 = Rs.26,250

(ii) Capital Profits:

	<i>Rs.</i>
General reserve as on 1st April, 2008	60,000
Add: Balance of profit and loss account as on 1st April, 2008	50,000
Half of net profit for the year 2008-2009	<u>35,000</u>

	1,45,000
Less: Dividend on equity share @15%	<u>30,000</u>
Capital profit	<u>1,15,000</u>
H Ltd.'s share = 75% of Rs.1,15,000 = Rs.86,250	

(iii) Capital reserves on consolidation:

Paid up value of shares acquired	1,50,000
H Ltd.'s share of capital profits	86,250
Dividend received out of pre-acquisition profits	<u>22,500</u>
	2,58,750
Less: Amount paid	<u>2,40,000</u>
Capital Reserve	<u>18,750</u>

(iv) Minority Interest:

Paid-up value of 500 shares in S Ltd.	50,000
25% of S Ltd.'s General reserve	15,000
25% of S Ltd.'s Profit and Loss Account	<u>22,500</u>
	<u>87,500</u>

Question 3

The following balances have been extracted from the books of Pioneer Traders Ltd. as on 30th September, 2009 :

	(Rs. '000)	
	Dr.	Cr.
Share capital (Authorised and issued):		
Equity (15,00,000 Shares of Rs.100 each)	—	1,50,000
8% Redeemable preference (40,000 shares)	—	4,000
Securities premium	—	2,500
Preference share redemption	4,800	—
General reserve	—	10,000
Land (cost)	30,000	—
Buildings (cost less depreciation)	70,000	—
Furniture (cost less depreciation)	2,000	—
Motor vehicle (cost less depreciation)	3,500	—
Trading account – gross profit	—	90,000
Establishment charges	25,000	—
Rate, taxes and insurance	1,200	—
Commission	600	—
Discount received	—	500
Interest on investments	—	800
Depreciation	6,000	—
Sundry office expenses	6,000	—
Payment to auditors	400	—
Sundry debtors and creditors	10,660	2,560
Profit and loss account (as on 30.9.2008)	—	1,000

Unpaid dividend	—	200
Cash in hand	1,200	—
Cash at bank in current account	19,500	—
Security deposit	1,000	—
Outstanding expenses	—	600
Investments in G.P. Notes	20,000	—
Stock in trade (at or below cost)	35,300	—
Provision for taxation (year ended 30.9.2008)	—	7,000
Income-tax paid under dispute (year ended 30.9.2008)	10,000	—
Advance payment of income-tax	<u>22,000</u>	<u>—</u>
	<u>2,69,160</u>	<u>2,69,160</u>

The following further details are available :

- (i) The preference shares were redeemed on 1st October, 2008 at a premium of 20% but no entries were passed for giving effect thereto, except payment standing to the debit of preference share redemption account.
- (ii) Depreciation as provided upto 30th September, 2009 is as follows :
 - (a) Building – Rs.2,10,00,000.
 - (b) Furniture – Rs.20,00,000.
 - (c) Motor vehicles – Rs.60,00,000.
- (iii) Establishment charges include Rs.18,00,000 paid to managing director as remuneration in terms of agreement which provides for a remuneration of 5% of annual net profits.
- (iv) Payment to auditors includes Rs.1,00,000 for taxation work in addition to audit fees.
- (v) Market value of investments on 30th September, 2009 is Rs.1,80,00,000.
- (vi) Sundry debtors include Rs.40,00,000 due for a period exceeding six months.
- (vii) All receivables and deposits are considered good for realisation.
- (viii) Income-tax demand for the year ended 30th September, 2008 Rs.1,00,00,000 has not been provided for against which appeal is pending.
- (ix) Income-tax is to be provided @ 34%. Also provide for tax on divisible profit @ 16%.
- (x) Directors recommended payment of dividend on equity shares at the rate of 12%.
- (xi) Ignore previous year's figures.

You are required to prepare the profit and loss account for the year ended 30th September, 2009 and a balance sheet as at that date. (15 marks)

Answer 3

**Profit and Loss Account of Pioneer Traders Ltd.
for the year ended 30th September, 2007**

(Rs. in 000's)

Dr.

Cr.

<i>Particulars</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Particulars</i>	<i>Rs.</i>
To Establishment Charges	25,000		By Gross profit b/d	90,000
Less: Remuneration to M.D.	<u>1,800</u>	23,200	By Discount received	500
To Rates, taxes and insurance		1,200	By Interest on Investment	800
To Commission		600		
To Depreciation		6,000		
To Sundry office expenses		6,000		
To Payment to auditors:				
Audit fees	300			
Fees for taxation work	<u>100</u>	400		
To Remuneration to managing director @5% on Profits Rs.53,900 (i.e. Rs.91,300 – Rs.37,400)		2,695		
To Provision for taxation		17,410		
To Net Profit c/d		<u>33,795</u>		
		<u>91,300</u>		<u>91,300</u>
To Provision for taxation for the year ended 30.9.2008		3,000	By Balance as per last year	1,000
To General reserve (2.5% of current year's profit)		845	By Profit for the year b/d	33,795
To Proposed dividend @ 12% on paid-up capital		18,000		
To Tax on Distributed Profit @ 16%		2,880		
To Balance c/d		<u>10,070</u>		
		<u>34,795</u>		<u>34,795</u>

Balance Sheet of Pioneer Traders Ltd., as at 30th September, 2009

(Rs. in 000's)

<i>Liabilities</i>	<i>Rs.</i>	<i>Assets</i>	<i>Rs.</i>
<i>Share Capital:</i>		<i>Fixed Assets:</i>	
Authorised Capital -		Land at Cost	30,000
15,00,000 Equity Shares		Building at Cost	91,000
of Rs. 100 each	1,50,000	Less: Depre-	
Issued and Subscribed		ciation to date	21,000
Capital -			70,000
15,00,000 Equity Shares of		Furniture	4,000
Rs. 100 each, fully paid-up	1,50,000	Less: Depre-	
<i>Reserves and Surplus:</i>		ciation to date	2,000
Capital Redemption			2,000
Reserve Account	4,000	Motor Vehicles	9,500
Securities Premium Account	1,700	Less: Depre-	
General Reserve as		ciation to date	6,000
per last year's			3,500
Balance Sheet	10,000	<i>Investments:</i>	
Less: Transfer to		Investments in G.P.	
Capital Redemption		Note (market value	
Reserve	4,000	Rs. 18,000 thousand)	20,000
	6,000	<i>Current Assets,</i>	
<i>Added during</i>		<i>Loans and Advances:</i>	
<i>the year</i>	845	<i>A. Current Assets:</i>	
Profit and Loss Account	10,070	Stock-in-trade	
<i>Secured Loan:</i>	—	(at or below cost)	35,300
<i>Unsecured Loan:</i>	—	Sundry Debtors:	
<i>Current Liabilities and</i>		Debts Outstanding	
<i>Provisions:</i>		For more than	
<i>A. Current Liabilities:</i>		6 months	4,000
Sundry creditors	2,560	Other debts	6,660
Unpaid dividend	200	Cash in hand	1,200
Outstanding expenses	600	Bank balance in	
Remuneration payable to		Current Account	19,500
Managing Director:		<i>B. Loans and Advances:</i>	
Remuneration @ 5% on		Security deposit	1,000
Net profit	2,695	Income-tax paid	
Less: Amount		Under dispute	10,000
already paid	1,800	Advance payment of tax	22,000
<i>B. Provisions</i>			
Provision for taxation			
for 2007-08	10,000		
Provision for taxation			
for 2008-09	17,410		
Proposed dividend	18,000		
Tax on Distributed Profit	2,880		
	2,25,160		2,25,160

N.B. Alternatively, the balance sheet may be prepared in vertical form also.

Question 4

(a) *Balance sheet of Diamond Ltd. as at 30th June, 2009 is given below :*

<i>Liabilities</i>	<i>Rs.</i>
<i>Share capital : 40,000 Shares of Rs.10 each</i>	<i>4,00,000</i>
<i>General reserve</i>	<i>80,000</i>
<i>Profit and loss account</i>	<i>64,000</i>
<i>Sundry creditors</i>	<i>2,56,000</i>
<i>Income-tax reserve</i>	<i><u>1,20,000</u></i>
	<i><u>9,20,000</u></i>
<i>Assets</i>	
<i>Land and buildings</i>	<i>2,20,000</i>
<i>Plant and machinery</i>	<i>2,60,000</i>
<i>Patents and trade marks</i>	<i>40,000</i>
<i>Preliminary expenses</i>	<i>24,000</i>
<i>Stock</i>	<i>96,000</i>
<i>Debtors</i>	<i>1,76,000</i>
<i>Bank balance</i>	<i><u>1,04,000</u></i>
	<i><u>9,20,000</u></i>

The expert valuer valued the land and buildings at Rs.4,80,000, goodwill at Rs.3,20,000 and plant and machinery at Rs.2,40,000. Out of the total debtors, it is found that debtors of Rs.16,000 are bad. The profits of the company have been as follows :

<i>31st March, 2007</i>	<i>: Rs.1,84,000</i>
<i>31st March, 2008</i>	<i>: Rs.1,76,000</i>
<i>31st March, 2009</i>	<i>: Rs.1,92,000</i>

The company follows the practice of transferring 25% of profits to general reserve. Similar type of companies earn at 10% of the value of their shares. Plant and machinery, and land and buildings have been depreciated at 15% and 10% respectively. Ascertain the value of shares of the company by using—

(i) Intrinsic value method;

(ii) Yield value method; and

(iii) Fair value method.

(6 marks)

(b) Rax Ltd. invited applications from public for 1,00,000 equity shares of Rs.10 each at a premium of Rs.5 per share. The entire issue is underwritten by the underwriters A, B, C, and D to the extent of 30%, 30%, 20%, and 20% respectively with the provision of firm underwriting of 3,000, 2,000, 1,000 and 1,000 shares respectively. Underwriters are entitled to maximum commission as per law. The company has received applications for 70,000 shares from public out of which applications for 19,000, 10,000, 21,000 and 8,000 shares were marked in favour of A, B, C and D respectively. Calculate the liability of each underwriter treating firm underwriting on par with marked applications.

Also ascertain the underwriting commission @ 2.5% payable to each underwriter. (6 marks)

(c) "Buy-back may be misused by the corporate entities at the cost of innocent investors." Give your comments. (3 marks)

Answer 4(a)

Diamond Ltd.

Valuation of shares

(i) Intrinsic value method

Assets:	Rs.
Land and buildings	4,80,000
Goodwill	3,20,000
Plant and machinery	2,40,000
Patents and trade marks	40,000
Stock	96,000
Debtors less bad debts	1,60,000
Bank balance	<u>1,04,000</u>
	14,40,000
Less: Liabilities:	
Sundry creditors	<u>2,56,000</u>
Net assets	<u>11,84,000</u>

$$\begin{aligned} \text{Intrinsic value of shares (each share)} &= \frac{\text{Net Assets}}{\text{No. of Shares}} \\ &= \frac{\text{Rs. } 11,84,000}{40,000} = \text{Rs. } 29.60 \end{aligned}$$

(ii) Yield value method

	Rs.
Total profit of last three years	5,52,000
Less: Bad debts	<u>16,000</u>
	5,36,000
Average profit = $\frac{\text{Rs. } 5,36,000}{3}$ =	1,78,667
Add: Decrease in depreciation on plant and machinery @ 15% on Rs. 20,000	<u>3,000</u>
	1,81,667
Less: Increase in depreciation on land and building @ 10% on Rs. 2,60,000	<u>26,000</u>
Average profit	1,55,667
Less: Transfer to reserve @ 25% of Rs. 77,833	<u>38,917</u>

Profit available for dividend 1,16,750

$$\text{Rate of dividend} = \frac{\text{Rs. } 1,16,750}{4,00,000} \times 100 = \text{Rs. } 29.187\%$$

$$\begin{aligned} \text{Yield value of share} &= \frac{\text{Rate of Dividend}}{\text{Normal Rate of Return}} \times \text{Paid-up value of each share} \\ &= \frac{29.187}{10} \times 10 = \text{Rs. } 29.19 \end{aligned}$$

(iii) *Fair value method*

$$\begin{aligned} \text{Fair value of each share} &= \frac{\text{Intrinsic Value} + \text{Yield Value}}{2} \\ &= \frac{\text{Rs. } 29.60 + \text{Rs. } 29.19}{2} = \text{Rs. } 29.40 \end{aligned}$$

Answer 4(b)

Liability of Underwriters (No. of shares)

<i>Particulars</i>	<i>Total</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>
Gross Liability	1,00,000	30,000	30,000	20,000	20,000
Less: Unmarked Applications	<u>12,000</u>	<u>3,600</u>	<u>3,600</u>	<u>2,400</u>	<u>2,400</u>
Balance	88,000	26,400	26,400	17,600	17,600
Less: Marked Applications	<u>58,000</u>	<u>19,000</u>	<u>10,000</u>	<u>21,000</u>	<u>8,000</u>
Balance	30,000	7,400	16,400	– 3,400	9,600
Less: Firm Underwriting	<u>7,000</u>	<u>3,000</u>	<u>2,000</u>	<u>1,000</u>	<u>1,000</u>
Balance	23,000	4,400	14,400	– 4,400	8,600
Adjustment	–	<u>–1,650</u>	<u>–1,650</u>	<u>+4,400</u>	<u>–1,100</u>
Net Liability	23,000	2,750	12,750	–	7,500
Total Liability including firm underwriting	<u>30,000</u>	<u>5,750</u>	<u>14,750</u>	<u>1,000</u>	<u>8,500</u>

Underwriting Commission

The underwriting commission is payable at the rate of 2.5% of the issue price of shares.

$$\begin{aligned} \text{Thus, commission payable to } A &= 30,000 \times \text{Rs. } 15 \times \frac{2.5}{100} = \text{Rs. } 11,250 \\ B &= \text{Rs. } 11,250 \\ C &= 20,000 \times \text{Rs. } 15 \times \frac{2.5}{100} = \text{Rs. } 7,500 \\ D &= \text{Rs. } 7,500 \end{aligned}$$

Answer 4(c)

It is feared that the buy-back may be misused by the corporate entities at the cost of innocent investors because of following reasons:

- (i) It will provide ample opportunity for insider trading. The promoters, before the buyback, may understate the earnings by manipulating accounting policies in respect of depreciation, valuation of inventories, etc. and highlight other unfavourable factors affecting the earnings. This would lead to a fall in the quoted prices of shares and the promoter would buy then at low quotations. In this manner, the insiders would make extra money when the company buybacks these shares at a higher price.
- (ii) Buyback may lead to artificial manipulation of stock prices.
- (iii) The position of the minority shareholders is weakened as buyback enables the management to increase their control over the company.

PART—B**Question 5**

- (a) *State, with reasons in brief, whether the following statements are correct or incorrect :*

- (i) *Under Flux method, labour turnover is calculated by number of workers left divided by average number of workers.*
- (ii) *In cost plus contracts, the contractor runs a risk of incurring a loss.*
- (iii) *There is no need to record attendance of piece rate workers since attendance is not relevant for ascertaining the amount of wages to be paid.*
- (iv) *A profit centre whose performance is measured by its return on investment (ROI) is known as investment centre.*
- (v) *Contribution is not only the criterion for deciding profitability.*

(2 marks each)

- (b) *Choose the most appropriate answer from the given options in respect of the following :*

- (i) *The rate of change of labour force in an organisation during a specified period is called —*
 - (a) *Labour efficiency*
 - (b) *Labour turnover*
 - (c) *Labour productivity*
 - (d) *None of the above.*
- (ii) *When a contract is not complete at the end of the year, profit on incomplete contract —*
 - (a) *Is not considered*
 - (b) *Is considered for inclusion in the profit for the year*

- (c) *Is considered for the inclusion of a part of the year*
 (d) *None of the above.*
- (iii) *When prices fluctuate widely, the method that will avoid the effect of fluctuations is —*
 (a) *FIFO*
 (b) *LIFO*
 (c) *Simple average*
 (d) *Weighted average.*
- (iv) *Fixed costs remain fixed —*
 (a) *Over a short period*
 (b) *Over a long period and within relevant range*
 (c) *Over a short period and within a relevant range*
 (d) *Over a long period.*
- (v) *When the under or over absorbed overheads amount is significant, it should be disposed off by —*
 (a) *Transferring to costing profit and loss account*
 (b) *Using a supplementary rate*
 (c) *Carry over to next year*
 (d) *None of the above.* (1 mark each)
- (c) *Re-write the following sentences after filling-in the blank spaces with appropriate word(s)/figure(s) :*
- (i) _____ expenses are excluded from cost.
- (ii) *An account giving details of cost of production, cost of sales and profit made during a particular period is called _____.*
- (iii) *The process of apportionment of factory overheads among production and service department is called _____ of factory overheads.*
- (iv) *The time for which the employer pays remuneration to workers but obtains no direct benefit is called _____.*
- (v) *A system that keeps a running and continuous record that tracks inventories and cost of goods sold on day-to-day basis is called _____.* (1 mark each)

Answer 5(a)

- (i) **Incorrect.** Under flux method, labour turnover is calculated by dividing the sum of number of workers left plus the number of workers joined, divided by average number of workers.
- (ii) **Incorrect.** In cost plus contracts, the contractor is assured of a fixed percentage of profit over the total cost and there is no risk of incurring any loss on the contract.
- (iii) **Incorrect.** Under payment by result system, the payment made has a direct relationship with the output given by a worker. The attendance of the worker

or the time taken by him for doing a job has no bearing on the payment. However, to ensure discipline, incentive system, statutory obligation, attendance record is must.

- (iv) **Correct.** In investment centre, the manager is expected to earn a satisfactory return on the assets employed in his responsibility centre which is measured by ROI.
- (v) **Correct.** Although to maximize profit, resources should be mobilized towards that product which gives the maximum contribution. But in real life, there may be several factors such as, demand for the product, production capacity, availability of material, labour, capital, etc. which may put a limit on the number of units to be produced even if the products give a high contribution.

Answer 5(b)

- (i) (b) - Labour Turnover
- (ii) (c) - Is considered for the inclusion of a part of the year
- (iii) (d) - Weighted average
- (iv) (c) - Over a short period and within a relevant range
- (v) (b) - Using a supplementary rate

Answer 5(c)

- (i) **Notional** expenses are excluded from cost.
- (ii) An account giving details of cost of production, cost of sales and profit made during a particular period is called **production account**.
- (iii) The process of apportionment of factory overheads among production and service department is called **primary distribution** of factory overheads.
- (iv) The time for which the employer pays remuneration to workers but obtains no direct benefit is called **idle time**.
- (v) A system that keeps a running and continuous record that tracks inventories and cost of goods sold on day-to-day basis is called **perpetual inventory system**.

Question 6

Summarised income statement and balance sheet of Progressive Ltd. are given below :

Income Statement for the year ended 31st December, 2009

	(Rs. '000)
Sales	1,600
Less: Cost of goods sold	<u>1,310</u>
Gross margin	290
Less: Selling and administration expenses	<u>40</u>
Net operating income (EBIT)	250
Less: Interest	<u>45</u>
Earnings before tax	205
Less : Tax paid	<u>82</u>
Net income after tax	<u>123</u>

Earnings per share (EPS) is Rs. 3.075.

Balance Sheet as at 31st December, 2009

<i>Liabilities</i>	<i>(Rs. '000)</i>
<i>Paid-up capital (40,000 shares of Rs. 10 each fully paid)</i>	<i>400</i>
<i>Retained earnings</i>	<i>120</i>
<i>Debentures</i>	<i>700</i>
<i>Creditors</i>	<i>180</i>
<i>Bills payable</i>	<i>20</i>
<i>Other current liabilities</i>	<i><u>80</u></i>
	<i><u>1,500</u></i>
<i>Assets</i>	
<i>Net fixed assets</i>	<i>800</i>
<i>Inventory</i>	<i>400</i>
<i>Debtors</i>	<i>175</i>
<i>Marketable securities</i>	<i>75</i>
<i>Cash</i>	<i><u>50</u></i>
	<i><u>1,500</u></i>

Price per share is Rs.15.

Industry's average ratios are :

<i>Current ratio</i>	<i>2.4</i>
<i>Quick ratio</i>	<i>1.5</i>
<i>Sales to inventory</i>	<i>8.0</i>
<i>Average collection period</i>	<i>36 days</i>
<i>Price per share/book value of share</i>	<i>1.6</i>
<i>Debts to assets</i>	<i>40%</i>
<i>Times interest earned</i>	<i>6</i>
<i>Profit margin</i>	<i>7%</i>
<i>Price to earnings ratio</i>	<i>15</i>
<i>Return to total assets</i>	<i>11%</i>

- (i) *Progressive Ltd. would like to borrow Rs.5,00,000 from a bank for less than a year. Evaluate the firm's current financial position by calculating ratios that you feel would be useful for the bank's evaluation.*
- (ii) *What problem areas are suggested by your ratio analysis ? What are the possible reasons for them?*
- (iii) *Do you think that the bank should give the loan?*
- (iv) *If Progressive Ltd.'s inventory utilisation ratio (sales to inventory) and average collection period were reduced to industry average, what amount of funds would be generated?* (15 marks)

Answer 6**Progressive Limited****Computation of Ratios for Evaluation***(Rs. in Thousands)*

	<i>Firm's Ratio</i>	<i>Industry Average</i>
(a) Current Ratio = Current Assets/Current Liabilities Current Assets = Rs.400 + 175 + 75 + 50 = Rs.700 Current Liabilities = Rs.180 + 20 + 80 = Rs.280 Current Ratio = 700/280	2.5	2.4
(b) Quick Ratio = Liquid Assets/Current Liabilities Liquid Assets = Rs.175 + 75 + 50 = Rs.300 Quick Ratio = 300/280	1.07	1.5
(c) Sales to Inventory = Sales/Inventory = 1,600/400	4	8
(d) Average Collection Period = Debtors/Average Daily Sales = 175/(1,600/365)	40 days	36 days
(e) Price per Share to Book Value of Share = Price per share/Book value of share = 15/(520/40) Book value of share = (Paid-up capital + Retained earnings)/No. of shares	1.15	1.6
(f) Debts to Assets = Debts/Assets = (700/1,500) x 100	46.7%	40%
(g) Times EBIT = Earnings Before Interest and Tax/Interest = 250/45	5.56	6
(h) Profit Margin = (Net Profit/Sales) x 100 = (123/1,600) x 100	7.7%	7%
(i) Price to Earning Ratio = Price per Share/Earning Per Share = 15/3.075	4.88	15
(j) Return on total assets = Net profit/Total Assets = (123/1,500) x 100	8.2%	11%

(i) Different relevant ratios have been calculated above. The final decision about the loan of Rs.5,00,000 can be taken only after considering and analyzing different ratios and firm's problems.

(ii) Firm's current ratio is more than industry ratio but quick ratio is less. The

difference in current and quick ratio is due to inventory of Rs.4,00,000 out of current assets of Rs.7,00,000. The firm's collection period is more than the industry. If it has been increasing in the past, it is a danger signal. Sales to inventory are low and less than industry. It may be due to damaged goods. The credit policy should be reviewed to improve firm's debts collection. Firm's debt to assets ratio is higher than the industry, which implies that the firm has taken more loans. Even the interest coverage ratio is little lesser than the industry. The creditors/lenders may not like to advance loans to the firm at the current rate. Therefore, firm may have to pay higher interest in future. The price earning ratio and price per share to book value is quite less than industry. It may be due to higher loans and low utilization of assets. The investment in the firm looks to be risky and it may have adverse effect on firm's future growth.

- (iii) Keeping in mind the above analysis the bank cannot advance loan to the firm. Even if the bank agrees for the loan, bank will demand higher rate of interest.
- (iv) The industry inventory turnover (sales to inventory) ratio is double the firm's ratio. If we use industry inventory turnover ratio, the firm should have inventory of Rs.2,00,000 but actually its inventory is Rs.4,00,000. If this ratio can be brought to industry level, Rs.2,00,000 can be generated. Based on industry collection period, the receivables should be :

Average Daily Sales x Industry collection period
 Rs.4,400 (approx.) x 36 days = Rs.1,58,400

Currently, debtors are Rs.1,75,000 and therefore a saving of Rs.16,600 is possible. Therefore, Rs.2,16,600 (2,00,000 + 16,600) may be generated if sales to inventory and average collection period is brought to industry level.

Question 7

- (a) Write short notes on **any two** of the following :
- Superiority of zero base budgeting (ZBB) to traditional budgeting
 - Activity based costing
 - Cash, cash equivalents and cash flows. (3 marks each)
- (b) Two manufacturing companies which have the following operating details decided to merge :

	Company-I	Company-II
Capacity utilisation (%)	90	60
Sales (Rs. in lakhs)	540	300
Variable costs (Rs. in lakhs)	396	225
Fixed costs (Rs. in lakhs)	80	50

Assuming that the proposal is implemented, calculate —

- (i) Break-even sales of the merged plant and the capacity utilisation at that stage.

- (ii) Profitability of the merged plant at 80% capacity utilisation.
- (iii) Sales turnover of the merged plant to earn a profit of Rs.75 lakh.
- (iv) When the merged plant is working at a capacity to earn a profit of Rs.75 lakh, what percentage increase in selling price is required to sustain an increase of 5% in fixed overheads ? (9 marks)

Answer 7(a)(i)

Superiority of zero base budgeting (ZBB) to traditional budgeting

Zero base budgeting is superior to traditional budgeting due the following reasons:

- (i) Zero base budgeting provides a systematic base for evaluation of different activities.
- (ii) It gives an opportunity for management to allocate resources to various activities after a proper cost benefit analysis.
- (iii) It assigns that the functions undertaken are critical for the achievement of the objectives.
- (iv) It provides a base for a system of management by objectives.
- (v) It provides a close relationship between departmental budget and corporate objectives / budget.
- (vi) It helps in identifying wastage and their elimination.

Answer 7(a)(ii)

Activity based costing

It is a technique of costing which is basically used for apportionment of overheads costs in an organisation having products that differs in volume and complexity of production. Under this technique, the overhead costs of the organizations are identified with each activity which is acting as the cost driver, i.e. the cause for incurrence of overhead cost. Such cost drivers may be purchase orders issued, quality inspections, maintenance requests, material receipts, inventory movements, power consumed, machine time, etc. Having identified the overhead costs with each cost centre, cost per unit of cost driver can be ascertained. The overhead costs can be now assigned to jobs on the basis of the number of activities required for their completion. Therefore, ABC technique – is a technique which involves identification of costs with each cost driving activity and making it as the basis for apportionment of costs over different products or jobs. In other words, it is a technique of cost attribution to cost units on the basis of benefits received from indirect activities, i.e. ordering, setting up and assuring quality.

Answer 7(a)(iii)

Cash, cash equivalent and cash flows

Cash comprises cash in hand and demand deposits with banks. Demand deposits mean those deposits which are repayable by banks on demand by the depositor.

Cash equivalents are short term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value. Cash equivalents are held for the purpose of meeting short term cash commitments rather than for investments or other purposes.

Cash flows are inflows and outflows of cash and cash equivalents. It means the movement of cash into the organisation and movement of cash out of the organization. The difference between cash inflows and outflows is known as net cash flow which can be either net cash inflow or net cash outflow.

Answer 7(b)

(i) Position of the Merged Plant at 100% capacity

(Rs. in lakhs)

	Company I	Company II	Total
Sales	600	500	1,100
Less: Variable Costs	<u>440</u>	<u>375</u>	<u>815</u>
Contribution	160	125	285
Less: Fixed Costs	<u>80</u>	<u>50</u>	<u>130</u>
Profit	<u>80</u>	<u>75</u>	<u>155</u>

P/V Ratio of the merged plant = $[(\text{Contribution} \div \text{Sales}) \times (100)]$

$$= \frac{285}{1,100} \times 100 = 25.909\%$$

(Rs. in lakh)

Break even sales of the merged plant = $\frac{\text{Fixed Cost}}{\text{P/V Ratio}} = \frac{130 \times 1,100}{285} = \text{Rs.}501.75 \text{ lakhs}$

Per cent of capacity utilization = $\frac{501.75}{1,100} \times 100 = 45.61\%$

(ii) Profitability of the merged plant at 80% capacity

Rs.(Lakh)

Sales (at 80% capacity i.e., 80% of Rs.1,100 lakh)	880
Less: Variable Costs (80% of Rs.815 lakh)	<u>652</u>
Contribution	228
Less: Fixed costs	<u>130</u>
Profit	<u>98</u>

OR

Total contribution at 80% capacity = 285 lakh x 80% =	228
Less: Fixed Costs	<u>130</u>
Profit	<u>98</u>

$$\text{Profitability} = \frac{98}{880} \times 100 = 11.14\%$$

(iii) Sales required to earn a profit of Rs.75 lakh :

$$= \frac{\text{Fixed Costs} + \text{Desired Profit}}{\text{P/V Ratio}} = \frac{\text{Rs.130 lakh} + \text{Rs.75 lakh}}{285/1100}$$

OR

$$= \frac{205 \times 1,100}{285} = \text{Rs.791.23 lakh}$$

(iv) Percentage of increase in selling price to sustain 5% increase in fixed overheads:

$$5\% \text{ of fixed cost} = \frac{130 \times 5}{100} = \text{Rs.6.5 lakh}$$

$$\text{Percentage increase in selling price} = \frac{6.5}{791.23} \times 100 = 0.8215\%$$

Question 8

(a) A company manufactures 5,000 units of a product per month. The cost of placing an order is Rs.100. The purchase price of the raw material is Rs.10 per kg. The re-order period is 4 to 8 weeks. The consumption of raw materials varies from 100 kgs. to 450 kgs. per week, the average consumption being 275 kgs. The carrying cost of inventory is 20% per annum. You are required to calculate —

- (i) Re-order quantity
- (ii) Re-order level
- (iii) Maximum level
- (iv) Minimum level
- (v) Average stock level.

Assume 52 weeks in a year.

(6 marks)

(b) Following information is available for a factory for the year 2008 :

	Rs.
Direct material	3,00,000
Direct wages	2,50,000
Factory overheads	1,50,000
Administrative overheads	1,68,000
Selling overheads	1,12,000
Distribution overheads	70,000
Profit	2,10,000

A work order has been executed in the year 2008 and the expenses incurred were — materials Rs.4,000; and wages Rs.2,500.

Assuming that in the year 2009 the rate of factory overheads has increased by 20%, distribution overheads have gone down by 10% and selling and administration overheads have each gone up by 12.5%, at what price should the product be sold so as to earn the same rate of profit on the selling price as in the year 2008 ? Factory overheads are based on direct wages while other overheads are based on factory cost.

(9 marks)

Answer 8(a)

$$\begin{aligned}
 \text{(i) Re-order Quantity} &= \sqrt{\frac{2U \times P}{S}} \\
 &= \sqrt{\frac{2 \times 14,300 \times \text{Rs.}100}{2}} \\
 &= 1,196 \text{ Kgs.}
 \end{aligned}$$

Where –

U = Annual Requirement = 275 kgs. per week for 52 weeks = 14,300

P = Ordering Cost = Rs.100 per order

S = Carrying Cost per unit per annum = 20% of Rs. 10 = Rs. 2

(ii) Re-order Level = Maximum Consumption x Maximum Re-order Period
 = 450 Kgs. x 8 (weeks) = 3,600 Kgs.

(iii) Minimum Stock Level
 = Re-order Level + Re-order Quantity – (Minimum Consumption x Minimum Re-order Period)
 = 3,600 Kgs. + 1,196 Kgs. – (100 Kgs. X 4 weeks)
 = 3,600 Kgs. + 1,196 Kgs. – 400 Kgs
 = 4,396 Kgs.

(iv) Minimum Stock Level
 = Re-order level– (Normal Consumption x Normal Re-order Period)
 = 3,600 Kgs. – (275 Kgs. X 6 weeks)
 = 3,600 Kgs. – 1,650 Kgs.
 = 1,950 Kgs.

(v) Average Stock Level = Minimum Level + ½ of Re-order Quantity
 = 1,950 Kgs. + ½ x 1,196 Kgs.
 = 1,950 Kgs. + 598 Kgs.
 = 2,548 Kgs.

OR

$$\frac{\text{Maximum Level} + \text{Minimum Level}}{2}$$

$$= 4,396 \text{ Kgs.} + 1950 \text{ Kgs.} = \frac{6346}{2} = 3173 \text{ Kgs.}$$

Answer 8(b)**Statement of Cost and Profit for the year 2008**

<i>Particulars</i>	<i>Rs.</i>
Materials	3,00,000
Direct Wages	<u>2,50,000</u>
Prime Cost	5,50,000
Factory Overheads	<u>1,50,000</u>

Factory Cost	7,00,000
Administration Overheads	<u>1,68,000</u>
Cost of Production	8,68,000
Selling Overheads	1,12,000
Distribution Overheads	<u>70,000</u>
Cost of Sales	10,50,000
Profit	<u>2,10,000</u>
Sales	<u>12,60,000</u>

(a) Percentage of Factory overheads on direct wages

$$= 1,50,000 / 2,50,000 \times 100 = 60\%$$

(b) Percentage of Administrative overheads on factory cost

$$= 1,68,000 / 7,00,000 \times 100 = 24\%$$

(c) Percentage of Selling overheads to factory cost

$$= 1,12,000 / 7,00,000 \times 100 = 16\%$$

(d) Percentage of Distribution overheads to factory cost

$$= 70,000 / 7,00,000 \times 100 = 10\%$$

(e) Percentage of Profit on cost of sales

$$= 2,10,000 / 10,50,000 \times 100 = 20\%$$

Estimate for the work order

Particulars	Rs.
Materials	4,000
Wages	<u>2,500</u>
Prime Cost	6,500
Factory Overheads (60% of wages + 20% thereof) i.e. 72% of wages	<u>1,800</u>
Factory Cost	8,300
Administration Overheads (24% of factory cost + 12.5% thereof) i.e. 27% of factory cost	<u>2,241</u>
Cost of Production	10,541
Selling Overheads (16% of factory cost + 12.5% thereof) i.e. 18% of factory cost	1,494
Distribution Overheads (10% of works cost - 10% thereof) i.e. 9% of factory cost	<u>747</u>
Cost of Sales	12,782
Profit (20% on cost)	<u>2,556</u>
Selling Price	<u>15,338</u>