

**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) *Write the most appropriate answer from the given options in respect of the following :*
- (i) *As per section 77A(4) of the Companies Act, 1956 from the date of passing the special resolution, every buy-back should be completed within —*
 - (a) *12 Months*
 - (b) *3 Months*
 - (c) *6 Months*
 - (d) *9 Months.*
 - (ii) *Profit prior to incorporation is transferred to —*
 - (a) *General reserve*
 - (b) *Capital reserve*
 - (c) *Profit and loss account*
 - (d) *None of the above.*
 - (iii) *Dividends are usually paid on —*
 - (a) *Paid-up capital*
 - (b) *Authorised capital*
 - (c) *Called up capital*
 - (d) *Subscribed capital.*
 - (iv) *Sinking fund for the redemption of debentures is an instance of —*
 - (a) *Reserve*
 - (b) *Provision*
 - (c) *Reserve fund*
 - (d) *Reserves and surplus.*
 - (v) *At the time of issuance, shares can be underwritten by —*
 - (a) *Only one underwriter*
 - (b) *At least 2 or more persons jointly*
 - (c) *Any number of underwriters*
 - (d) *None of the above.*

(1 mark each)

(b) *Re-write the following sentences after filling-in the blank spaces with appropriate word(s)/figure(s) :*

- (i) *Preliminary expenses being of capital nature may be written-off against _____.*
- (ii) *Companies declaring, distributing or paying dividends are liable to pay tax on the same at prescribed rate which is known as _____.*
- (iii) *An intangible asset should be _____ on disposal or when no future economic benefits are expected from its use and subsequent disposal.*
- (iv) *The value of the right is the difference between _____ and the _____ of the share.*
- (v) *The fair value of a share is the average of the value of the share obtained by the _____ method and _____ method.*

(1 mark each)

(c) *State, with reasons in brief, whether the following statements are true or false :*

- (i) *According to section 80 of the Companies Act, 1956, the redemption of preference shares by a company shall be taken as reducing the amount of its authorised share capital.*
- (ii) *A profit and loss account is a point statement whereas a balance sheet is a period statement.*
- (iii) *Internally generated goodwill should not be recognised as an asset.*
- (iv) *A company can enforce its lien by forfeiting the shares.*
- (v) *A limited company can retain excess application money as calls-in-advance even if there is no provision in the articles of association.*

(2 marks each)

Answer 1(a)

- (i) (a) 12 months
- (ii) (b) Capital reserve
- (iii) (a) Paid up capital
- (iv) (c) Reserve Fund
- (v) (c) Any number of underwriters

Answer 1(b)

- (i) Preliminary expenses being of capital nature may be written-off against **Capital profits**.
- (ii) Companies declaring, distributing or paying dividends are liable to pay tax on the same at prescribed rate which is known as **Tax on distributed profit**.
- (iii) An intangible asset should be **Derecognized or eliminated from balance sheet** on disposal or when no future economic benefits are expected from its use and subsequent disposal.
- (iv) The value of the right is the difference between **Market value** and the **Average price** of the share.

- (v) The fair value of a share is the average of the value of the share obtained by the **Net assets** method and **Yield** method.

Answer 1(c)

- (i) **False** : According to Section 80 of the Companies Act, the redemption of preference shares shall not be taken as reducing the amount of its authorised capital. The main object of Section 80, is to protect the interests of the creditors of the company. As such the capital structure of the company will remain unaffected even after the Redemption of Preference Shares.
- (ii) **False** : A profit & loss account is a periodic statement and a balance sheet is a point statement. Balance sheet is prepared at the end of the financial year whereas profit and loss account is prepared for the financial year.
- (iii) **True** : An internally generated goodwill should not be recognized as an asset. However, intangible assets arising from development phase should be recognized only if certain conditions are fulfilled.
- (iv) **False** : A company cannot enforce its lien by forfeiting the shares because by virtue of lien, the company has prior right to the shares over any creditor to whom they are given as security for a loan unless the company was given prior notice of an existing mortgage or pledge of these shares.
- (v) **False** : A limited company can retain excess application as calls in advance when the following two conditions are satisfied:
- The Articles of the company provide for the acceptance of calls in advance.
 - The consent of the applicant has been taken either by a separate letter or by inserting a clause in the company's prospectus or application form.

Question 2

- (a) *Distinguish between any two the following :*

- 'Bonus shares' and 'rights shares'.
- 'Interim dividend' and 'final dividend'.
- 'Statutory books' and 'statistical books'. (3 marks each)

- (b) *Following are the balance sheets of H Ltd. and S Ltd. as at 31st December, 2010 :*

<i>Liabilities</i>	<i>H Ltd. (₹)</i>	<i>S Ltd. (₹)</i>
<i>Equity share of ₹ 100 each fully paid</i>	<i>5,00,000</i>	<i>2,00,000</i>
<i>General reserve</i>	<i>1,00,000</i>	<i>—</i>
<i>Profit and loss account</i>	<i>80,000</i>	<i>—</i>
<i>14% Debentures</i>	<i>—</i>	<i>1,00,000</i>
<i>Creditors</i>	<i>75,000</i>	<i>45,000</i>
	<u><i>7,55,000</i></u>	<u><i>3,45,000</i></u>

Assets		
Fixed assets	3,50,000	1,50,000
Stock	90,000	40,000
Debtors	60,000	30,000
14% Debentures in S Ltd. (at par)	60,000	—
Equity shares in S Ltd. @ ₹ 80 per share	1,20,000	—
Bank	75,000	25,000
Profit and loss account	—	1,00,000
	<u>7,55,000</u>	<u>3,45,000</u>

H Ltd. acquired 1,500 shares in S Ltd. on 1st May, 2010. The profit and loss account of S Ltd. showed a debit balance of ₹ 1,50,000 on 1st January, 2010. During March, 2010, goods costing ₹ 6,000 were destroyed by fire, against which the insurance company paid ₹ 2,000 only to S Ltd. Creditors of S Ltd. include ₹ 20,000 for goods supplied by H Ltd. on which H Ltd. made a profit of ₹ 2,000. Half of the goods were sold out of this. An item of plant (included in fixed assets) of S Ltd. had book value of ₹ 15,000. It was to be revalued at ₹ 20,000 on 1st January, 2010 (ignore depreciation). Prepare consolidated balance sheet as on 31st December, 2010.

(9 marks)

Answer 2(a)(i)

Bonus shares and Rights shares

Bonus shares are allotted to existing shareholders without any consideration being received from them. They are issued to capitalize the profits of the company. Bonus shares can be issued only if Articles of Association permit such issue. Shares of the existing shareholders automatically increase when the bonus shares are issued.

When a company which has already issued shares wants to make further issue of shares, it is under legal obligation to first offer the fresh issue to the existing shareholders unless the company has resolved otherwise by a special resolution. Such shares offered are right shares. The shareholders can accept or reject the offer or transfer the right to purchase the fresh shares to another person.

Answer 2(a)(ii)

Interim dividend and Final dividend

Interim dividend

Interim dividend means a dividend paid to the shareholders of the company in anticipation of profits of a period before the accounts of the company for that period have been prepared. It is dividend paid by the directors anytime between two annual general meetings of the company.

Declaration of interim dividend does not create a debt against the company and can be rescinded or varied at any time before payment.

Section 205(1) is not applicable to interim dividend. For declaration and payment of interim dividend, the directors need to satisfy that there are adequate distributable profits and payment of interim dividend would not result in payment out of capital.

Final dividend

Final dividend is recommended by the directors and declared by the shareholders in the annual general meeting. It is declared after the accounts of the company for that period have been prepared.

Once a final dividend is declared, it is a debt payable to the shareholders and cannot be revoked or reduced by any subsequent action of the company.

Section 205 is applicable to final dividend as it is based on annual profit and loss account.

Answer 2(a)(iii)**Statutory books and Statistical books**

The Companies Act specifically requires certain books or registers to be kept by a company maintaining a record of its activities in order to safeguard the interest of the shareholders and creditors. These books are known as statutory books. Example of such books according to the companies Act, 1956 are: Register of investments not held in company's name (section 49), Register of Fixed Deposits (Section 58A), Register of Charges (Section 143), Register of Members (Section 150), Books of Accounts (Section 209), and Register of Directors' Shareholdings (Section 307).

A company usually maintains a number of other books in order to keep complete records of the numerous details connected with the business operations. Such books are known as statistical books. The keeping of such book is optional, i.e., there is no statutory compulsion for keeping such books. For example, share application and allotment book, share calls book, share certificate book, debenture application and allotment book, debenture calls book, register of share transfer, shareholders dividend book, debentures interest book, agenda book and register of share warrants, etc.

Answer 2(b)

**Consolidated Balance Sheet of H Ltd. and its Subsidiary S Ltd.
as on 31st December 2010**

<i>Liabilities</i>		<i>Amount (₹)</i>	<i>Assets</i>		<i>Amount (₹)</i>
<i>Share capital</i>			Goodwill		68,250
5,000 equity shares @ ₹ 100 each		5,00,000	Fixed Assets:		
Minority Interest		26,250	H Ltd.	3,50,000	
<i>Reserve & Surplus</i>			S Ltd.	<u>1,55,000</u>	5,05,000
General Reserve		1,00,000	Current Assets :		
Profit & Loss A/c	80,000		Stock		
Add : Profits from S Ltd.	<u>27,000</u>		H Ltd.	90,000	
	1,07,000		S Ltd.	<u>40,000</u>	
				<u>1,30,000</u>	
Less : Unrealised Profit	<u>1000</u>	1,06,000	Less : Unrealised Profit	<u>1,000</u>	1,29,000

Liabilities		Amount (₹) Assets		Amount (₹)	
Secured Loans		Debtors			
14% Debentures	1,00,000		H Ltd.	60,000	
Less : Inter co. Invest.	<u>60,000</u>	40,000	S Ltd.	<u>30,000</u>	
				90,000	
Current Liabilities:					
Creditors :		Less: Inter company			
H Ltd.	75,000		owing	<u>20,000</u>	70,000
S Ltd.	<u>45,000</u>		Bank		
	1,20,000		H Ltd.	75,000	
Less : Mutual Owings	<u>20,000</u>	1,00,000	S Ltd.	25,000	1,00,000
		<u>8,72,250</u>			<u>8,72,250</u>

Working Notes :

(1) Capital Profits (Pre-acquisition profits)

	₹
Profit & Loss A/c as on 1st January 2010	(-) 1,50,000
<i>Add :</i>	
Pre-acquisition profit (1.01.2010 to 30.04.2010) (See Note)	18,000
Appreciation in the value of assets	5,000
Capital Profits	(-) 1,31,000
H Ltd.'s share (75%)	(-) 98,250
Minority Interest (25%)	(-) 32,750

(2) Revenue Profits (Post-acquisition profits)

(01.05.2010 to 31.12.2010)

Profits Earned after acquisition (See Note):	₹ 36,000
H Ltd. Share (75%)	₹ 27,000
Minority Interest (25%)	₹ 9,000

Note : Calculation of Profit of S Ltd. Earned during the Year:

	₹
Profit & Loss A/c as on 31.12.2010	(-) 1,00,000
Less : Opening Balance	(-) 1,50,000
Profits earned during the year	<u>50,000</u>
Add : Loss on Stock (₹ 6,000 - 2,000)	4,000
Profits earned during the year	<u>54,000</u>
Pre-acquisition profits : (₹54,000 x 4/12) - 4,000	₹ 14,000
Post-acquisition profits: (₹54,000 x 8/12)	₹ 36,000

(3) Calculation of Cost of Control

Amount Paid for 75% shares in S Ltd.		1,20,000
Less : Paid up value of 75% shares	1,50,000	
Less : Share of capital profit	(-) 98,250	51,750
		<u>68,250</u>

(4) Minority Interest

		₹
Paid up value of 25% Share Capital		50,000
Add : Capital Profits	(-) 32,750	
Revenue Profits	9,000	(-) 23,750
		<u>26,250</u>

Question 3

- (a) Write short notes on any two of the following :
- Purchase of own debentures in the market by a company
 - Tax on distributed profit
 - Lien on shares. (3 marks each)
- (b) The following particulars of Jag Apna Ltd. are available :
- Share capital :
 - 10,000 Equity shares of ₹10 each fully paid
 - 1,000, 12% Preference shares of ₹100 each fully paid
 - Reserves and surplus : ₹ 15,000
 - External liabilities :
 - Creditors : ₹ 12,000
 - Bills payable : ₹ 6,000
 - The average normal profits (after taxation) earned each year by the company: ₹ 28,500.
 - Assets of the company include one fictitious item of ₹ 800.
 - The fair or normal rate of return in respect of the equity shares of this type of company is ascertained at 10%.
Calculate the value of each equity share by using — (i) assets backing method; (ii) yield method; and (iii) fair value method. (6 marks)
- (c) A limited company has a paid-up equity share capital of ₹ 15,00,000 divided into 1,50,000 shares of ₹10 each and 11% preference share capital of ₹5,00,000 divided into 5,000 shares of ₹100 each. The balance of profit brought forward from the previous balance sheet was ₹38,000.
The profit for the year ended 31st March, 2010 amounted to ₹5,80,000 after tax. The directors proposed a dividend of 24% on equity share capital after providing for — (i) statutory minimum transfer to general reserve; and (ii) dividend on preference shares. Ignore tax on distributed profit. Prepare profit and loss appropriation account.

Answer 3(a)(i)**Purchase of own debentures in the market by a company**

A company can buy its own debentures in the open market if it is authorized by its articles of association. The debentures so purchased can be used either for immediate cancellation or redemption of debentures or for investment. The debentures so purchased for investment can subsequently either be reissued to fulfill additional requirement of cash or can be cancelled if the company so desires. Debentures when purchased for investment are popularly known as "Own Debentures".

Answer 3(a)(ii)**Tax on distributed profits**

Tax on distributed profit is chargeable on any amount declared, distributed or paid by a domestic company by way of dividend whether interim or otherwise. It is paid in addition to the income tax chargeable on total income. Tax on distributed profit is payable to the credit of Central Government within 14 days from the date of declaration, distribution or payment whichever is earlier. The present rate of tax is 15% plus education cess and secondary and higher education cess plus surcharge.

Answer 3(a)(iii)**Lien on Shares**

Lien on share means a right to hold a share of a member as a security for the performance of an obligation (whether for call money or other debt). The right of lien on share must be provided in articles of association of the company. The lien on share extends to all dividends payable on a share and to the residual assets if any, on winding up to which a shareholder is entitled. This enables the company to secure and recover any debts due from a member.

Answer 3(b)

(i) Asset backing Method:		₹
Equity share capital		1,00,000
12% Preference Share Capital		1,00,000
Reserve & Surplus		15,000
External Liabilities (12,000 + 6,000)		18,000
Gross Assets		<u>2,33,000</u>
Less : Fictitious Assets	800	
Less : External Liabilities	18,000	<u>18,800</u>
Net Assets available for all shareholders		2,14,200
Less : Preference Share Capital		<u>1,00,000</u>
Net Assets available for equity shareholders		<u>1,14,200</u>
Number of Equity Shares		10,000

$$\text{Intrinsic value per share} = \frac{\text{Net Assets}}{\text{No. of shares}} = \frac{1,14,200}{10,000} = ₹ 11.42$$

(ii) Yield Method

	₹
Average Profit after tax	28,500
Less : Preference dividend @ 12% on ₹ 1,00,000	12,000
Profits available for equity shareholders	<u>16,500</u>

Expected Rate of return on equity capital

$$= \frac{\text{Profits available for equity shareholders}}{\text{Equity Capital}} \times 100$$

$$= \frac{16,500 \times 100}{100,000} = 16.50\%$$

Normal rate of return (given) 10%

Value per share

$$= \frac{\text{Expected Rate of return on equity capital} \times \text{Paid up value of shares}}{\text{Normal rate of return}}$$

$$= \frac{16.50}{10} \times 10 = ₹ 16.5$$

(iii) Fair Value Method

$$\text{Fair value of shares} = \frac{\text{Intrinsic Value} + \text{Yield Value}}{2}$$

$$= \frac{11.42 + 16.50}{2} = ₹ 13.96$$

Answer 3(c)

**Profit and Loss Appropriation Account
for the year ended 31st March, 2010**

Dr.		for the year ended 31st March, 2010		Cr.	
Particulars		Amount ₹	Particulars		Amount ₹
To General Reserve A/c (Refer Note)		58,000	By Balance b/fd		38,000
To Preference Dividend		55,000	By Net profits for the year b/d		5,80,000
To Proposed Dividend on Equity Share Capital @ 24%		3,60,000			
To balance c/d		1,45,000			
		<u>6,18,000</u>			<u>6,18,000</u>
			By balance b/d		1,45,000

Note : Proposed Dividend exceeds 20% of the paid up capital. Therefore transfer to General reserve should be minimum 10% of the current year profits.

Question 4

- (a) Alex Ltd. forfeited 100 shares of ₹10 each issued at a premium of 20% (to be paid at the time of application money) on which allotment money of ₹4 and first call money of ₹3 were not received; the final call money of ₹2 is not yet called. These shares were originally allotted in the ratio of 4:5. These shares were subsequently re-issued at a discount of ₹1 per share, credited as ₹8 paid-up.

Pass journal entries in the books of Alex Ltd. (3 marks)

- (b) What are the conditions which must be fulfilled for redemption of preference shares ? (6 marks)

- (c) Zohar Ltd. has 12%, ₹4,00,000 debentures outstanding in its books on 1st April, 2009. It also had ₹2,40,000 balance in sinking fund account represented by 8% investments (face value of ₹3,00,000).

On 30th December, 2009, it sold investments of face value of ₹40,000 @ ₹90 and purchased own debentures of the face value of ₹40,000 out of the proceeds, for immediate cancellation.

The interest dates for both debentures and investments are 30th September and 31st March respectively. All transactions are made on cum interest basis. Show debenture account, sinking fund account and sinking fund investment account. (6 marks)

Answer 4(a)

**In the books of Alex Ltd.
Journal Entries**

Particulars	Dr. ₹	Cr. ₹
Equity Share Capital A/c	Dr. 800	
To Share Forfeited A/c (Refer W.Note)		175
To Share Allotment A/c		325
To Share First Call A/c		300
(Forfeiture of 100 shares for non-payment of allotment money and first call)		
Bank A/c	Dr. 700	
Share Forfeited A/c	Dr. 100	
To Equity Share Capital A/c		800
(Re-issue of 100 forfeited shares issued @ ₹7 per share ₹8 being paid-up)		
Share Forfeited A/c	Dr. 75	
To Capital Reserve A/c		75
(Profit on re-issue of 100 forfeited shares transferred to Capital Reserve A/c)		

Working Note:

No. of Shares Allotted	=	100	
No. of Shares applied for	=	$100 \times \frac{5}{4}$	= 125
Application money received including premium of ₹ 2			
		$125 \times ₹ 3$	= ₹ 375
Less : Transferred to Securities Premium A/c ($100 \times ₹ 2$) =			₹ 200
Balance amount received transferred to Share Forfeited A/c			<u>₹ 175</u>

Answer 4(b)

According to Section 80, the conditions which must be fulfilled for redemption of preference shares are as follows:

- (i) Such shares can be redeemed either out of the profits of the company which would otherwise be available for dividend or out of the proceeds of a fresh issue of shares made for the purpose of redemption.
- (ii) Unless the shares are fully paid they cannot be redeemed.
- (iii) If any premium is to be payable on redemption, such premium has to be provided out of the profits of the company or out of the securities premium account.
- (iv) Where any such shares are redeemed out of profits, a sum equal to the nominal amount of the shares so redeemed must be transferred out of the profits of the company which would otherwise be available for dividend to a reserve fund called 'Capital Redemption Reserve Account'. Otherwise, the provisions relating to the reduction of share capital of a company will apply, as if the Capital Redemption Reserve Account were paid-up share capital of the company.
- (v) The capital redemption reserve account may be applied by the company in paying up un-issued shares of the company to be issued to the members of the company as fully paid bonus shares. Otherwise Capital Redemption Account must be maintained intact unless otherwise sanctioned by the Court.
- (vi) No company limited by shares, shall after the commencement of the Companies (Amendment) Act, 1996 issue any preference shares which is irredeemable or is redeemable after the expiry of a period of twenty years from the date of issue [80(5A)].
- (vii) The redemption of preference shares by a company shall not be taken as reducing the amount of its authorised share capital.
- (viii) Where in pursuance of this section, a company has redeemed or is about to redeem any preference shares, it shall have power to issue upto the nominal amount of the shares redeemed or to be redeemed as if those shares had never been issued.
- (ix) If new shares are issued for the purpose of redemption of preference shares, it will not be treated as increase of capital.
- (x) If a company fails to comply with the legal provisions of this section, the company and every officer of the company who is in default shall be punishable with fine which may extend to ten thousand rupees.

Answer 4(c)

<i>Dr.</i> 12% Debentures Account			<i>Cr.</i>		
<i>Date</i>	<i>Particulars</i>	<i>Amount ₹</i>	<i>Date</i>	<i>Particulars</i>	<i>Amount ₹</i>
30 Dec. 09	To Bank A/c	34,800	1 April 09	By Balance b/fd	4,00,000
30 Dec. 09	To Sinking Fund A/c (Profit on cancellation of debentures) (W.Note 1)	5,200			
31 Mar. 10	To Balance c/d	3,60,000			
		<u>4,00,000</u>			<u>4,00,000</u>
			01 Apr. 10	By Balance b/d	3,60,000

<i>Dr.</i> Sinking Fund Account			<i>Cr.</i>		
<i>Date</i>	<i>Particulars</i>	<i>Amount ₹</i>	<i>Date</i>	<i>Particulars</i>	<i>Amount ₹</i>
30 Dec. 09	To General Reserve A/c	40,000	01 April 09	By Balance b/fd	2,40,000
30 Dec. 09	To Capital Reserve A/c (t/f on profit on cancellation)	5,200	30 Dec. 09	By Sinking Fund investment A/c (Profit on sale of Investments)	3,200
31 Mar. 10	To Balance c/d	2,26,400	30 Dec. 09	By 12% Deben- tures A/c (Profit on Cancellation)	5,200
			31 Mar. 10	By Interest on Sinking Fund Account	23,200
		<u>2,71,600</u>			<u>2,71,600</u>

<i>Dr.</i> Sinking Fund Investment Account			<i>Cr.</i>		
<i>Date</i>	<i>Particulars</i>	<i>Amount ₹</i>	<i>Date</i>	<i>Particulars</i>	<i>Amount ₹</i>
01 April 09	To Balance b/fd	2,40,000	30 Dec. 09	By Bank A/c	35,200
30 Dec. 09	To Sinking Fund A/c	3,200	31 Mar. 10	By Balance c/d	2,08,000
		<u>2,43,200</u>			<u>2,43,200</u>
01 Apr. 10	To Balance b/d	2,08,000			

*Working Note:***(1) Profit on Sale of Investments:**

	₹	₹
Nominal value of investments:		40,000
Sale proceeds of investments (cum interest)	36,000	
Less : Interest on investments for 3 months @ 8% (01/10/09 to 30/12/09)		
$\frac{40,000 \times 8 \times 3}{100 \times 12}$	800	
Sale Price of investments	35,200	
Less : Purchase price of investments (240,000/300,000 x 40,000)	32,000	
Profit on sale of investments	3,200	

(2) Profit on cancellation of Debentures

Nominal value of debentures		₹ 40,000
Sale proceeds of investments @ ₹ 90	₹ 36,000	
Less : Interest on debentures for 3 months @ 12% (01/10/09 to 30/12/09)		
$\frac{40,000 \times 12 \times 3}{100 \times 12}$	₹ 1,200	
Net Sale Proceeds	₹ 34,800	
Profit on cancellation of debentures	= ₹ 40,000 – ₹ 34,800 = ₹ 5,200	

(3) Interest on Sinking Fund Investment Account during the year

Half yearly interest received on 30th September 2009 on ₹ 3,00,000 @8%	= ₹ 12,000
Add : Interest on investments for 3 months @ 8% on ₹ 40,000	= ₹ 800
Half yearly interest received on 31st March 2010 on ₹ 2,60,000 @8%	= ₹ 10,400
Total	₹ 23,200

PART B

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

Question 5

(a) *Write the most appropriate answer from the given options in respect of the following :*

(i) *When the sales increase from ₹ 40,000 to ₹ 60,000 and profit increases by ₹ 5,000, the P/V ratio is —*

- (a) 20%
- (b) 30%
- (c) 25%
- (d) 40%.

(ii) *A company which has a margin of safety of ₹ 4,00,000 makes a profit of ₹ 80,000. Its fixed cost is ₹ 5,00,000, its break-even sales will be —*

- (a) ₹ 20 lakh
- (b) ₹ 30 lakh
- (c) ₹ 25 lakh
- (d) ₹ 40 lakh.

(iii) *Cost is determined before hand under —*

- (a) Standard costing
- (b) Historical costing
- (c) Marginal costing
- (d) None of the above.

(iv) *Continuous stock taking is a part of —*

- (a) Annual stock taking
- (b) Perpetual inventory
- (c) ABC Analysis
- (d) None of the above.

(v) *Absorption means —*

- (a) Charging of overheads to cost centres
- (b) Charging of overheads to cost units
- (c) Charging of overheads to cost centres or cost units
- (d) None of the above.

(1 mark each)

(b) *Re-write the following sentences after filling-in the blank spaces with appropriate word(s)/figure(s) :*

(i) _____ budget is a summary budget incorporating the component functional budgets and which is finally approved, adopted and employed.

- (ii) Costs which are pertinent for decision-making are termed as _____.
 - (iii) A responsibility centre in which a manager is accountable for costs only is called _____.
 - (iv) Contract in which reimbursement is based on actual allowable cost plus a fixed fee is called _____.
 - (v) Excess of budgeted revenues over the break-even revenue is called _____.
(1 mark each)
- (c) State, with reasons in brief, whether the following statements are true or false :
- (i) Direct costs and variable costs are not necessarily the same.
 - (ii) Idle facility and idle time are the same.
 - (iii) Overtime premium paid to all factory workers is usually considered direct labour.
 - (iv) Assuming inflation, if a company wants to maximise net income, it would select FIFO as the method of pricing raw materials.
 - (v) Collection of sundry debtors has no impact on current ratio.
(2 marks each)

Answer 5(a)

- (i) (c) 25%
- (ii) (c) Rs. 25 lakhs
- (iii) (a) Standard Costing
- (iv) (b) Perpetual inventory
- (v) (a) Charging of overheads to cost centres Or
(c) Charging of overheads to cost centres or cost units.

Answer 5(b)

- (i) **Master** budget is a summary budget incorporating the component functional budgets and which is finally approved, adopted and employed.
- (ii) Costs which are pertinent for decision-making are termed as **Relevant costs**.
- (iii) A responsibility centre in which a manager is accountable for costs only is called **Cost centre**.
- (iv) Contract in which reimbursement is based on actual allowable cost plus a fixed fee is called **Cost Plus Contract**.
- (v) Excess of budgeted revenues over the break-even revenue is called **Margin of Safety**.

Answer 5(c)

- (i) **True** : Direct costs are not necessarily the same as variable cost. Direct costs comprises of direct material cost, direct labour cost and direct expenses. Variable cost is made up of direct material, direct wages, direct expenses and variable overheads.
- (ii) **False** : Idle facility is that part of total facility like that part of a plant, machine or equipment etc. which cannot be effectively utilized in the business whereas idle time is that time which is paid for, but not utilized for production. Hence, we may say idle time is part of idle facility.
- (iii) **True** : Because they are usually directly engaged in production or carrying out some operation or process. Overtime premium paid to the factory workers is called direct labour cost and they can be easily identified with and charged to the product.
- (iv) **False** : In case of rising prices, i.e. inflation, the real profits of the concern becomes low because they may be inadequate to meet the concern's demand to purchase raw materials at the ruling price. Therefore, net income cannot be maximized in inflation.
- (v) **True** : Collection of sundry debtors has no impact on current ratio. Reduction in sundry debtors would be equal to addition in cash/bank balance. Therefore total current assets will remain same and hence current ratio will have no impact.

Question 6

(a) Distinguish between any two of the following :

(i) 'Cost accounting' and 'management accounting'.

(ii) 'Bin card' and 'store ledger'.

(iii) 'Time keeping' and 'time booking'. (3 marks each)

(b) From the following particulars of Bright Ltd., prepare cash flow statement as per AS-3 (Revised) :

Balance Sheets

Liabilities	As on 31.03.2009 (₹)	As on 31.03.2010 (₹)
Equity share capital	3,00,000	3,50,000
18% Preference share capital	2,00,000	1,00,000
14% Debentures	1,00,000	2,00,000
Reserves and surplus	1,10,000	2,70,000
Creditors	70,000	1,45,000
Provision for doubtful debts	10,000	15,000
	<u>7,90,000</u>	<u>10,80,000</u>

Assets	As on 31.03.2009 (₹)	As on 31.03.2010 (₹)
Fixed assets (net)	5,10,000	6,20,000
10% Investments	30,000	80,000
Cash	40,000	75,000
Debtors	1,00,000	2,10,000
Stock	1,00,000	90,000
Discount on debentures	10,000	5,000
	<u>7,90,000</u>	<u>10,80,000</u>

You are informed that during the year —

- (i) A machine with a book value of ₹ 40,000 was sold for ₹ 25,000.
- (ii) Depreciation charged during the year was ₹ 70,000.
- (iii) Preference shares were redeemed on 31st March, 2010 at a premium of 5%.
- (iv) An interim dividend @15% was paid on equity shares on 31st March, 2010. Preference dividend was also paid on 31st March, 2010.
- (v) New shares and debentures were issued on 31st March, 2010.

(9 marks)

Answer 6(a)(i)

Cost Accounting and Management Accounting

Cost Accounting	Management Accounting
1. Cost accounting is concerned with the ascertainment, allocation, distribution and accounting aspects of costs.	Management accounting is concerned with impact and effect aspect of costs.
2. Cost accounting data generally serves as a base to which the tools and techniques of management accounting can be applied to make it more purposeful and management oriented.	The management accounting data is derived both, from the cost accounts and financial accounts.
3. A cost accountant collects and presents costing data.	Management accountant analyses and decides specific business problems on the basis of data available.
4. The cost accountant is generally placed at a lower level of hierarchy.	The management accountant generally is placed at a higher level of hierarchy.

Cost Accounting	Management Accounting
5. The approach of the cost accountant is much narrower	The approach of management accountant is wider as it includes interpretation of economic and statistical data along with the costing data.
6. Tools and techniques like variable costing, break-even analysis, standard costing, etc., are used. ratio analysis, etc.,	Management accounting, in addition to the techniques of cost accounting, uses other techniques like cash flow,
7. Cost accounting does not include financial accounting and has nothing to do with tax accounting.	Management accounting includes both financial accounting as well as tax accounting. It also embraces tax planning and tax accounting.
8. Cost accounting is more concerned with short-term planning.	Management accounting is concerned equally with short-term and long-term planning
9. Cost accounting is mostly historical in its approach and it projects the past.	Management accounting is futuristic in its approach.
10. Cost accounting system can be installed without management accounting.	Management accounting cannot be installed without a proper cost accounting system.

Answer 6(a)(ii)**Bin Card and Stores ledger**

Bin Card	Stores Ledger
1. It is a quantity record.	It is a record of quantity and value.
2. It is kept inside the stores.	It is kept outside the stores.
3. It is maintained by the store keeper.	It is maintained by the accounts department.
4. The postings are done before the transactions take place.	The postings are done after the transactions take place.
5. Each transaction is individually posted.	Transactions may be posted periodically and in total.

Answer 6(a)(iii)**Time Keeping**

Time-keeping means keeping of record of the total time spent by a worker inside the

factory. It is necessary for the purpose of recording attendance and for calculating wages. The purpose of time-keeping is to provide basic data for:

- (i) pay-roll preparation;
- (ii) finding out the labour cost of a job/product/service;
- (iii) attendance records to meet statutory requirements;
- (iv) determining productivity and controlling labour cost;
- (v) calculating overhead cost of a job, product or service;
- (vi) to maintain discipline in attendance;

Time Booking

Time-booking means a record from the utilization point of view; the purpose is cost analysis and cost apportionment.

The objectives of time-booking are:

- (i) to apportion overheads against jobs;
- (ii) to calculate the labour cost of jobs done;
- (ii) to ascertain idle time for the purpose of control;
- (iv) to find out that the time during which a worker is in the factory is properly utilised;
- (v) to evaluate labour performance, to compare actual and budgeted time;
- (vi) to determine overhead rates of absorbing overhead expenses under the labour hour and machine hour methods;

Answer 6(b)

Cash Flow Statement of Bright Ltd for the year ended 31.3.2010

	<i>Particulars</i>	₹	₹
I.	Cash Flows from Operating Activities:		
	Closing balance as per Reserves & Surplus	2,70,000	
	<i>Less :</i> Opening balance as per Reserve & Surplus A/c	1,10,000	
	<i>Add :</i> Preference Dividend	36,000	
	<i>Add :</i> Interim Dividend	45,000	
	Net profit before taxation and extra ordinary items		2,41,000
	<i>Add :</i> Adjustment for		
	Depreciation	70,000	
	Interest on 14% Debentures	14,000	
	Discount on issue of debenture written off	5,000	

	Particulars	₹	₹
	Loss on sale of machine / land & building	15,000	
	Premium payable on redemption of preference shares	5,000	1,09,000
	Less : Interest on investment		(3,000)
	Operating profit before Working Capital Changes		3,47,000
	Add : Decrease in current assets & increase in current liabilities :		
	Decrease in stock	10,000	
	Increase in creditors	75,000	
	Increase in provisions for doubtful debts	5,000	90,000
	Less : Increase in current Assets & decrease in current liabilities		
	Increase in debtors (gross)		1,10,000
	Net cash from operating activities		3,27,000
II.	Cash Flow from Investing Activities :		
	Purchase of fixed assets	(2,20,000)	
	Proceeds from sale of machine	25,000	
	Interest on Investment	3,000	
	Purchase of Investment	(50,000)	
	Net cash used in investing activities		(2,42,000)
III.	Cash Flow from Financing Activities :		
	Proceeds from issue of share capital	50,000	
	Proceeds from 14% Debentures	1,00,000	
	Redemption of preference shares	(1,05,000)	
	Interest paid on long-term borrowings	(14,000)	
	Interim Dividend paid	(45,000)	
	Preference dividend paid during the year	(36,000)	
	Net cash used in financing activities		(50,000)
IV.	Net increase in cash and cash equivalents		
	[I + II + III]		35,000
V.	Add : Cash and cash equivalents at the beginning of the period		40,000
VI.	Cash and cash equivalents at the end of the period (IV + V)		75,000

Working Notes:

Dr.		Fixed Assets A/c (at WDV)		Cr.	
Particulars	₹	Particulars	₹		
To Balance b/d	5,10,000	By Bank A/c	25,000		
To Bank A/c (Purchases) (Balancing figure)	2,20,000	By Profit & Loss A/c (Loss on sale)	15,000		
		By Depreciation A/c	70,000		
		By Balance c/d	6,20,000		
	<u>7,30,000</u>		<u>7,30,000</u>		

It has been assumed that new investments have been purchased at the end of current accounting year.

Question 7

(a) Write short notes on any two of the following :

- (i) Essentials of an effective budgetary control system
- (ii) Make or buy decisions
- (iii) Cost-plus contracts.

(3 marks each)

(b) Following are the ratios to the trading activities of National Traders Ltd. :

Debtors' velocity	3 months
Stock velocity	8 months
Creditors' velocity	2 months
Gross profit ratio	25%

Gross profit for the year ended 31st December, 2009 amounting to ₹ 4,00,000.

Closing stock of the year is ₹ 10,000 more than the opening stock.

Bills receivable amount to ₹ 25,000.

Bills payable amount to ₹ 10,000.

Find out — (i) sales; (ii) sundry debtors; (iii) closing stock; and (iv) sundry creditors. (6 marks)

(c) Explain the significance of decision-making costs. Briefly explain the various type of costs used by the management in decision-making. (3 marks)

Answer 7(a)(i)

Essentials of an effective budgetary control system

Some of the pre-requisites for the successful implementation of an effective budgetary control system are summarised below:

- (1) There should be an organization chart laying out in clear terms the responsibilities

and duties of each level of executives and the delegation of authority to the various levels.

- (2) The objectives, plans, and policies of the business should be defined in clear cut and unambiguous terms.
- (3) The budget factor or the key factor(s) which will be the starting point of the preparation of the various budgets should be indicated.
- (4) For formulation and efficient execution of the plan, a Budget Committee should be set up.
- (5) There should be an efficient system of accounting to record and provide data in line with the budgetary control system.
- (6) There should be a proper system of communication and reporting between the various levels of management.
- (7) There should be a Budget Manual wherein all details regarding the plan and its procedure of operation are given as also the length of the budget period.
- (8) The budgets should primarily be prepared by those who are responsible for performance.
- (9) The budgets should be comprehensive, complete, continuous and realistic to attain.
- (10) There should be an assurance from the top management executives for co-operation and acceptance of the budgetary control system.

Answer 7(a)(ii)

Make or Buy Decisions

When the management is confronted with the problem whether it would be economical to purchase a component or a product from outside sources, or to manufacture it internally are make or buy decisions. Under such circumstances, marginal cost analysis is used to take decisions. In case the proposal is to buy from outside then, what is already being made, and the price quoted by the outsider should be lower than the marginal cost. If the proposal is to make something what is being purchased outside, the cost of making should include all additional costs like depreciation on new plant, interest on capital involved and that cost should be compared with the purchase price to come to the right decision.

Answer 7(a)(iii)

Cost Plus contracts

Cost Plus contract is a pricing method under which contractee agrees to reimburse the actual cost plus the agreed percentage of profit. This method is usually adopted when the works to be carried out are urgent and the value of the contract is heavy, for example in the works of construction during war time, urgent works, defence, public utility works, ship building, etc. Government and Semi Government organizations usually adopt the cost plus contracts to assign works. In cost plus contracts, it is possible to know the cost of contract, cost per each element and the amount of profit to the contractor.

Answer 7(b)**(i) Sales**

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

$$\begin{aligned} \text{Sales} &= \frac{4,00,000}{25} \times 100 \\ &= ₹ 16,00,000 \end{aligned}$$

(ii) Sundry Debtors

Debtors Velocity : 3 months

$$\text{Debtors Velocity} = \frac{\text{Months in Year}}{\text{Debtors Turnover Ratio}}$$

Therefore, Debtor Turnover Ratio = $12/3 = 4$ Times

$$\begin{aligned} \text{Total Debtors} &= \frac{\text{Net Sales}}{\text{Debtors Turnover Ratio}} \\ &= \frac{16,00,000}{4} \\ &= ₹ 40,00,00 \end{aligned}$$

Less : Bills Receivables ₹ 25,000

Sundry Debtors ₹ 3,75,000

(iii) Closing Stock

Stock Velocity = 8 months

$$\text{Stock Velocity} = \frac{\text{Months in Year}}{\text{Stock Turnover Ratio}}$$

Therefore, Stock Turnover ratio = $12/8 = 1.5$ times

$$\begin{aligned} \text{Cost of goods sold} &= \text{Sales} - \text{Gross profit} \\ &= ₹ 16,00,000 - ₹ 4,00,000 \\ &= ₹ 12,00,000 \end{aligned}$$

$$\text{Stock Turnover Ratio} = \frac{\text{Cost of Good Sold}}{\text{Average Stock}}$$

$$\text{Or, } 1.5 = \frac{12,00,000}{\text{Average Stock}}$$

$$\text{Or, Average Stock} = \frac{12,00,000}{1.5}$$

$$= ₹ 8,00,000$$

$$\text{Closing Stock} = \text{Opening Stock} + 10,000$$

$$\text{Average Stock} = \frac{\text{Opening Stock (OS)} + \text{Closing Stock (CS)}}{2}$$

$$\text{Or, } 8,00,000 = \frac{\text{OS} + \text{OS} + 10,000}{2}$$

$$\text{Or, OS} = \frac{15,90,000}{2}$$

$$\text{Or, OS} = ₹ 7,95,000$$

$$\text{Closing stock} = ₹ 7,95,000 + ₹ 10,000 = ₹ 8,05,000$$

(iv) Sundry Creditors

Creditors Velocity: 2 months

$$\text{Creditors Velocity} = \frac{\text{Months in Year}}{\text{Creditors Turnover Ratio}}$$

$$\text{Creditors Turnover Ratio} = 12/2 = 6 \text{ times}$$

$$\begin{aligned} \text{Purchases} &= \text{Cost of goods sold} + \text{Closing stock} - \text{Opening stock} \\ &= 12,00,000 + 8,05,000 - 7,95,000 \\ &= ₹ 12,10,000 \end{aligned}$$

$$\text{Total Creditors} = \frac{\text{Purchases}}{\text{Creditors Turnover Ratio}}$$

$$\text{Total Creditors} = \frac{12,10,000}{6}$$

$$= ₹ 2,01,667$$

$$\text{Less : Bills Payable} = ₹ 10,000$$

$$\text{Sundry Creditors} = ₹ 1,91,667$$

Answer 7(c)

There are certain costs which are specially used for decision making by the management. Such decision making costs may be relevant costs or irrelevant costs.

Various types of costs used by management in decision making are briefly described below:

- *Opportunity costs* : Opportunity cost is the cost of selecting one course of action and the losing of other opportunities to carry out that course of action. It is the amount that can be received if the asset is utilized in its next best alternative.
- *Differential cost* : Differential cost has been defined as “the difference in total cost between alternatives, calculated to assist decision making”. It helps management to know the additional profit that would be earned if idle capacity is used or when additional investments are made.
- *Imputed costs* : Some costs are not incurred and are useful while taking decision pertaining to a particular situation. Examples: Interest on internally generated funds, salaries of owners of proprietorship or partnership, notional rent etc.
- *Out-of-pocket costs* : Out-of-pocket costs signify such outlay required for an activity. The management would like to know that the income from a particular project will at least cover the expenditure for the project. Acceptance of a special order requires to be considered as additional costs need not be incurred if the special order is not accepted. Hence the importance of out-of-pocket costs.
- *Marginal costs* : It is the aggregate of variable costs, i.e., prime cost plus variable overheads. Thus, costs are classified as fixed and variable.
- *Replacement costs* : This is the cost of replacing an asset at current market values e.g. when the cost of replacing an asset is considered, it means the cost of purchasing the asset at the current market price is important and not the cost at which it was purchased.

Question 8

- (a) From the following data provided to you, find out the labour turnover rate by applying (i) replacement method; and (ii) separation method :

Number of workers on the payroll :

- At the beginning of the month : 500
- At the end of the month : 600.

During the month, 5 workers left, 20 workers were discharged and 75 workers were recruited. Of these, 10 workers were recruited in the vacancies of those leaving and while the rest were engaged for an expansion scheme.

(4 marks)

- (b) Following information is made available from the costing records of a factory :

- (i) The original cost of the machine : ₹ 1,00,000

Estimated life : 10 years

Residual value : ₹ 5,000

Factory operates for 48 hours per week : 52 weeks in a year.

Allow 15% towards machine maintenance down time.

5% (of productive time assuming unproductive) may be allowed as setting-up time.

- (ii) Electricity used by the machine is 10 units per hour at a cost of 50 paise per unit.
- (iii) Repair and maintenance cost is ₹500 per month.
- (iv) Two operators attend the machine during operations alongwith two other machines. Their total wages including fringe benefits, amounting to ₹ 5,000 per month is paid.
- (v) Other overheads attributable to the machine are ₹10,431 per year.

Using above data, calculate machine hour rate. (6 marks)

(c) Following information is given :

Cost of placing a purchase order	₹ 20
No. of units to be purchased during the year	5,000 Nos.
Purchase price per unit inclusive of transport cost	₹ 50
Annual storage cost per unit	₹ 5

Details of lead time :

– Average	10 days
– Maximum	15 days
– Minimum	6 days
– For emergency purchase	4 days

Rate of consumption per day :

– Average	15 units
– Maximum	20 units

Calculate — (i) re-ordering level; (ii) re-order quantity; (iii) maximum level; (iv) minimum level; and (v) danger level. (5 marks)

Answer 8(a)

(i) Replacement Method

$$\frac{\text{No. of workers replaced}}{\text{Average no. of workers}} \times 100 = \frac{10}{550} \times 100 = 1.82\%$$

(ii) Separation Method:

$$\frac{\text{No. of workers left}}{\text{Average no. of workers}} \times 100 = \frac{5 + 20}{550} \times 100 = 4.55\%$$

Average no. of workers is calculated as under:

$$= \frac{\text{No. of workers at the beginning} + \text{no. of workers at the end of the month}}{2}$$

$$= \frac{500 + 600}{2} = 550$$

Answer 8(b)**Computation of Machine Hour Rate:**

<i>Particulars</i>	<i>Per Year ₹</i>	<i>Per Hour ₹</i>
<i>Standing Charges</i>		
Wages for operator (₹ 5,000X12)/3	20,000	
Other Overheads	10,431	
Total	<u>30,431</u>	
Standing charges Per hour (30,431/2,015)		15.10
<i>Machine Expenses</i>		
Depreciation		
[(1,00,000 – 5,000) / 10]/2015		4.71
Repair and maintenance (5,00X12/2,015)		2.98
Electricity (10 units @ 50 paise)		<u>5.00</u>
Machine Hour Rate		27.79

*Working Note:***Calculation of effective machine hours:**

Total working hours per year (48 x 52)	2,496
Less : 15% maintenance time	<u>375</u>
	2,121
Less : 5% for setting up time	<u>106</u>
Effective time	2,015

Answer 8(c)

- (i) Re-ordering level (ROL) = Maximum usage x Maximum Reorder Period
 = 20 units per day x 15 days
 = 300 units

$$(ii) \text{ Reorder Quantity (ROQ)} = \sqrt{\frac{2A \times O}{C}} = \sqrt{\frac{2 \times 5,000 \text{ units} \times 20}{5}}$$

$$= 200 \text{ units}$$

A = Annual Demand

O = Ordering Cost

C = Carrying Cost

- (iii) Maximum Level = $ROL + ROQ - (\text{Minimum rate of Consumption} \times \text{Minimum Reorder Period})$
= $300 \text{ units} + 200 \text{ units} - (10 \text{ units per day} \times 6 \text{ days})$
= 440 units
- (iv) Minimum Level = $ROL - (\text{Average Rate of consumption} \times \text{Average Reorder Period})$
= $300 \text{ units} - (15 \text{ units per day} \times 10 \text{ days})$
= $300 - 150 \text{ units}$
= 150 units
- (v) Danger Level = $\text{Average consumption} \times \text{Lead time for emergency purchases}$
= $15 \text{ units per day} \times 4 \text{ days}$
= 60 units
-