MOCK TEST PAPER – 1

INTERMEDIATE (IPC): GROUP – I

PAPER – 3: COST ACCOUNTING AND FINANCIAL MANAGEMENT

SUGGESTED ANSWERS/HINTS

1. (a) (i) Efficiency Ratio $= \frac{\text{Actual Prodcution in terms of standard hours}}{\text{Actual hours worked}} \times 100$

$= \frac{750 \text{ units} \times 10 \text{ hours}}{6,000} \times 100 = 125\%$

(ii) Activity ratio $= \frac{\text{Actual Production in terms of standard hours}}{\text{Budgeted production in terms of standard hours}} \times 100$

$= \frac{7,500}{880 \times 10} \times 100 = 85.23\%$

(iii) Capacity Ratio $= \frac{\text{Actual hours worked}}{\text{Maximum hours in a budget period}} \times 100$

$= \frac{6,000}{8,800} \times 100 = 68.19$

Activity ratio = Efficiency Ratio × Capacity Ratio

Or, 85.23% = 125%× 68.19%

(b) Working Notes:

1. Depreciation per annum: $= \frac{\text{Purchase price - Scrap value}}{\text{Estimated life}}$

$= \frac{\text{Rs. } 4,00,000 - \text{Rs. } 10,000}{5 \text{ years}} = \text{Rs. } 78,000$

2. Total distance travelled by mini-bus in 25 days:

= Length of the route (two -sides) × No. of trips per day × No. of days

= 60 km × 6 trips × 25 days = 9,000 km

3. Total Passenger-Km:

= Total distance travelled by mini-bus in 25 days × No. of seats

= 9,000 km × 20 seats = 1,80,000 passenger-km

Statement suggesting fare per passenger-km

Particulars	Cost per annum Rs.	Cost per month Rs.
Fixed expenses:		
Insurance	15,000	

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Garage rent	9,000	
Road tax	3,000	
Administrative charges	5,000	
Depreciation	78,000	
Interest on loan	10,000	
	1,20,000	10,000
Running expenses:		
Repair and maintenance	15,000	1,250
Replacement of tyre-tube	3,600	300
Diesel and oil cost (9,000 km × Rs. 5)	-	45,000
Driver and conductor's salary	-	5,000
Total cost (per month)		61,550.00
Add: Profit 20% of total revenue cost or 25% of total cost		15,387.50
Total revenue		76,937.50

Rate per passenger-km Rs. 76,937.50/1,80,000 passenger km = 0.42743 i.e., = 0.43 i.e., 43 paise.

(c) (i) Calculation of cost and benefits of factoring:

Particulars	Amount (Rs.)
A. Cost of factoring:	
Factoring fees (Rs.2,19,00,000 × 2.5%)	5,47,500
Annual interest on advances (90% × Rs.36,00,000 × 12%)	3,88,800
	9,36,300
B. Benefits of factoring:	
Saving in credit control cost	5,00,000
Net cost of factoring (A – B)	4,36,300

(ii) The cost of financing of receivable with bank overdraft

= 90% × Rs.36,00,000 × 15% = Rs.4,86,000

The net cost of factoring is lower than the bank overdraft finance by Rs. 49,700 i.e. Rs.4,86,000 - Rs.4,36,300, therefore, the company should go for factoring.

(d) Calculation of Cash from Operating Activities:

Particulars	Amount (Rs.)	Amount (Rs.)
Profit during the year (Rs.65,00,000 – Rs.60,00,000)		5,00,000
Add: Transfer to general reserve (Rs.2,07,00,000 – Rs.1,72,00,000)	35,00,000	
Goodwill written off (Rs.70,00,000 – Rs.60,00,000)	10,00,000	45,00,000
Operating profit before working capital changes		50,00,000
Add: Decrease in Trade receivables (Rs.85,00,000 – Rs.48,00,000)		37,00,000
Less: Increase in Bills receivables (Rs.81,00,000 – Rs.40,00,000)	41,00,000	
Increase in salaries prepaid (Rs.10,00,000 – Rs.8,00,000)	2,00,000	
Decrease in wages outstanding (Rs.26,00,000– Rs.8,00,000)	18,00,000	(61,00,000)
Cash flow from operating activities		**26,00,000**

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2. **(a)** (i) Optimal order quantity i.e. E.O.Q.

$$= \sqrt{\frac{2 \times 4,000 \times 135}{12}} = \sqrt{90,000} = 300 \text{ units}$$

Relevant Cost of this order quantity	Rs.
Ordering cost = $\frac{4,000}{300}$ 13.33 say 14 orders at Rs. 135	1,890
Carrying Cost = $\frac{1}{2} \times 300 \times 12$	1,800
Relevant cost	3,690

(ii) Revised EOQ = $\sqrt{\frac{2 \times 4,000 \times 80}{12}}$ = 231 units

Ordering cost = $\frac{4,000}{231}$ = 17.32 say 18 orders at Rs. 80	1,440
Carrying cost = $\frac{1}{2} \times 231 \times 12$	1,386
	2,826

Different in cost on account of this error = 3,690 – 2,826 = Rs. 864

(iii) In case of discount in purchase price, the total cost of Purchase cost, ordering cost and carrying cost should be compared.

Original offer at Rs. 90 per unit		Supplier offered at Rs. 86 per unit	
	Rs.		Rs.
Purchase Cost	3,60,000	Purchase cost 4,000 × 86	3,44,000
Ordering cost	1,890	Ordering cost	Nil
Carrying cost	1,800	Carrying cost $\frac{1}{2} \times 4,000 \times 12$	24,000
Total cost	3,63,690		3,68,000

This special offer at Rs. 86 per unit should not be accepted as its total cost is higher by Rs. 4,310 (3,68,000 – 3,63,690).as compared to original offer.

(b) (i) Current Ratio $= \frac{\text{Current assets}}{\text{Current liablities}} = \frac{\text{Stock} + \text{Receivables} + \text{Cash}}{\text{S. Payables} + \text{ Provision for taxation}}$

$$= \frac{250 + 300 + 150}{400 + 100} = \frac{700}{500} = 1.4:1$$

(ii) Liquidity Ratio $= \frac{\text{Liquid assets}}{\text{Current liablities}} = \frac{\text{Current assets} - \text{Stock}}{\text{Current liabilities}}$

$$= \frac{700 - 250}{500} = \frac{450}{500} = 0.9:1$$

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(iii) Profitability Ratio $= \frac{EBIT}{Sales} = \frac{300}{1,200} \times 100 = 25\%$

(iv) Profitability on Funds Employed

$$= \frac{EBIT}{Funds\ employed} \times 100 \quad = \quad \frac{EBIT}{Eq.\ Capital + Reserves + Ret.earnings} \times 100$$

$$= \frac{300}{1,400 + 450 + 200} \times 100 \quad = \quad \frac{300}{2,050} \times 100 = 14.63\%$$

(v) Receivables' (Debtors') turnover ratio $= \frac{Sales}{Average\ receivables} = \frac{1,200}{300} = 4$ times

(vi) Average Receivables' (Debtors') Collection Period

$$= \frac{Average\ Receivables}{Credit\ sales} \times 12\ months \quad = \frac{300}{1,200} \times 12 = 3\ months$$

(vii) Stock turnover ratio $= \frac{Sales}{Average\ Stock} = \frac{1,200}{250} = 4.8$ times

(viii) Return on Equity $= \frac{Profit\ after\ tax}{Shareholders'\ funds} \times 100$

$$= \frac{200}{1,400 + 450 + 200} \times 100 \quad = \frac{200}{2,050} \times 100 = 9.76\%$$

3. (a) Working Notes:

(i) **Computation of Allocation Ratio for Joint Costs**

	Products		
	X Rs.	**Y Rs.**	**Z. Rs.**
Selling Price	13.75	8.75	7.50
Less: Anticipated margin@ 25% on cost or 20% on sales	2.75	1.75	1.50
Cost of sales	11.00	7.00	6.00
Less: Post split- off cost	5.00	4.00	2.50
Joint cost per unit	6.00	3.00	3.50
Output (units)	8,000	6,000	4,000
Total output cost	48,000	18,000	14,000
Allocation ratio for joint costs	24	9	7

(ii) **Computation of net allocable joint costs**

	Rs.	**Rs.**
Joint input cost including material cost		90,800
Less: Credit for realization from by-product B: Sales revenue (1,000 × Re. 1)	1,000	
Less: profit @ 25% on cost or 20% on sales	200	800
Net joint costs to be allocated		90,000

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Determination of joint cost per unit of each product

Product	Net joint costs allocation Rs.	Output (units) Rs.	Joint cost per unit Rs.
X	54,000 (Note : 1)	8,000	6.75
Y	20,250	6,000	3.38
Z	15,750	4,000	3.94
	90,000		

Profit margin available on each product as a percentage on cost

Product	Joint Cost Rs.	Post spilt off cost Rs.	Total Cost Rs.	Selling Price Rs.	Margin Rs.	Margin % on cost Rs.
X	6.75	5.00	11.75	13.75	2.00	17.02
Y	3.38	4.00	7.38	8.75	1.37	18.56
Z	3.94	2.50	6.44	7.50	1.06	16.46

Note: 1

$$X = \frac{24}{40} \times 90,000 = 54,000$$

$$Y = \frac{9}{40} \times 90,000 = 20,250$$

$$Z = \frac{7}{40} \times 90,000 = 15,750$$

$$90,000$$

(b) Cash Budget for the months of April, May and June

Particulars	April (Rs.)	May (Rs.)	June (Rs.)
Receipts:			
80% of credit sales	25,60,000	25,60,000	27,20,000
20% of credit sales	6,00,000	6,40,000	6,40,000
Total receipts	31,60,000	32,00,000	33,60,000
Payments:			
Purchases	17,00,000	18,00,000	19,00,000
Labour & Overheads	14,20,000	14,80,000	15,20,000
Machinery			20,00,000
Total payments	31,20,000	32,80,000	54,20,000
Opening balance	3,00,000	3,40,000	2,60,000
Net cash flow	40,000	(80,000)	(20,60,000)
Closing balance	3,40,000	2,60,000	(18,00,000)

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4. (a) (i)

	Rs.
Sales 50,000 units at Rs. 7	3,50,000
Variable cost 50,000 × 3	1,50,000
Contribution 50,000 × 4	2,00,000
Fixed costs	1,20,000
Profit	80,000

$$\text{P/V ratio} = \frac{S-V}{S} \times 100 = \frac{7-3}{7} \times 100 = \frac{4}{7} \times 100 = 57.14\%$$

$$\text{BEP (units)} = \frac{\text{Fixed cost}}{\text{contribution per unit}} = \frac{1,20,000}{4} = 30,000 \text{ Units}$$

BEP (Value) = 30,000 Units × 7 = Rs. 2,10,000

Profit Rs. 80,000 (as calculated above)

(ii) with a 10% increase in output & sales

i.e., 50,000+ 5,000 = 55,000 units

Contribution 55,000 × Rs. 4 per unit	Rs. 2,20,000
Fixed costs	Rs. 1,20,000
Profit	Rs. 1,00,000

(iii) with a 10% increase in Fixed Cost

Contribution (50,000 × Rs. 4 per unit)	Rs. 2,00,000
Fixed cost (1,20,000+ 12,000)	Rs. 1,32,000
Profit	Rs. 68,000

(iv) with a 10% increase in variable costs

Selling price per unit	7.00
Less: variable cost (3+0.30)	3.30
Contribution per unit	3.70
Total contribution 50,000 × 3.70	1,85,000
Fixed costs	1,20,000
Profit	65,000

(v) with a 10% increase in selling price

Selling price per unit (7.00+0.70)	7.70
Variable cost per unit	3.00
Contribution per unit	4.70
Total contribution 50,000 × Rs. 4.70	2,35,000
Fixed costs	1,20,000
Profit	1,15,000

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(vi) Effect of all the four above:-

Sales 55,000 × Rs. 7.70 per unit	Rs. 4,23,500
Variable cost 55,000 × 3.30	Rs. 1,81,500
Contribution 55,000 × 4.40	Rs. 2,42,000
Fixed cost 1,20,000+ 12,000	Rs. 1,32,000
Profit	Rs. 1,10,000

Note: It is assumed that the increased output of 55,000 units has been sold.

(b) (i) Estimation of net present value (NPV) of the Project 'P' and 'J ' using 15% as the hurdle rate:

NPV of Project 'P' :

$$= -8,00,000 + \frac{2,60,000}{(1.15)^1} + \frac{1,60,000}{(1.15)^2} + \frac{2,80,000}{(1.15)^3} + \frac{2,40,000}{(1.15)^4} + \frac{2,20,000}{(1.15)^5} + \frac{3,00,000}{(1.15)^6}$$

= – 8,00,000 + 2,26,087 + 1,20,983 + 1,84,105 + 1,37,221 + 1,09,379 + 1,29,698

= Rs.1,07,473

NPV of Project 'J ' :

$$= -4,00,000 + \frac{1,40,000}{(1.15)^1} + \frac{2,60,000}{(1.15)^2} + \frac{2,40,000}{(1.15)^3}$$

= –4,00,000 + 1,21,739 + 1,96,597 + 1,57,804 = Rs.76,140

(ii) Estimation of internal rate of return (IRR) of the Project 'P ' and ' J '

Internal rate of return r (IRR) is that rate at which the sum of cash inflows after discounting equals to the discounted cash out flows. The value of r in the case of given projects can be determined by using the following formula:

$$CO_0 = \frac{CF_0}{(1+r)^0} + \frac{CF_1}{(1+r)^1} + \ldots\ldots\ldots\ldots\ldots\ldots + \frac{CFn}{(1+r)^n} + \frac{SV + WC}{(1+r)^n}$$

Using the two rates IRR can be calculated as follows:

$$IRR = L + \frac{NPV_L}{NPV_L - NPV_H}(H - L)$$

Calculation of NPV

Year		Project-P			Project- J	
	Cash Flow	20%	PV	Cash Flow	26%	PV
0	(8,00,000)	1.0000	(8,00,000)	(4,00,000)	1.0000	(4,00,000)
1	2,60,000	0.8333	2,16,658	1,40,000	0.7937	1,11,118
2	1,60,000	0.6944	1,11,104	2,60,000	0.6299	1,63,774
3	2,80,000	0.5787	1,62,036	2,40,000	0.4999	1,19,976
4	2,40,000	0.4823	1,15,752	-	0.3968	
5	2,20,000	0.4019	88,418	-	0.3149	
6	3,00,000	0.3349	1,00,470	-	0.2499	
NPV			(5,562)			(5,132)

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Calculation of IRR

Project-P	Project-J
$15\% + \frac{Rs.1,07,473}{Rs.1,07,473 + Rs.5,562}(20\% - 15\%)$	$15\% + \frac{Rs.76,140}{Rs.76,140 + Rs.5,132}(26\% - 15\%)$
IRR = 19.75%	IRR = 25.31%

(iii) The conflict between NPV and IRR rule in the case of mutually exclusive project situation arises due to re-investment rate assumption. NPV rule assumes that intermediate cash flows are reinvested at k and IRR assumes that they are reinvested at r. The assumption of NPV rule is more realistic.

(iv) When there is a conflict in the project choice by using NPV and IRR criterion, we would prefer to use "Equal Annualized Criterion". According to this criterion the net annual cash inflow in the case of Projects 'P' and 'J' respectively would be:

(Net present value/ cumulative present value of Rs.1 p.a. @15% for 6 years)

Project 'P' = (Rs.1,07,473/3.7845) = Rs.28,398

Project 'J' = (Rs.76,140/2.2832) = Rs.33,348

Advise: Since the cash inflow per annum in the case of project 'J' is more than that of project 'P', so Project J is recommended.

5. (a) The following procedure is usually followed for setting material quantity standards.

(a) Standardisation of products: At this phase products to be produced is decided based on production plan and customer's order. Generally following questions are answered at this stage: (i) What to be produced? (ii) Which type to be produced and (iii) How much to be produced?

(b) Product study: Product to be produced is analysed and studied for developments and production. Product study is carried out by the engineering department or product consultants. At this phase answers to the following questions are satisfied: (i) How can it be produced? (ii) What are the pre-requisites? (iii) Which type of materials to be used? (iv) How products can be accepted in the market? Etc.

(c) Preparation of specification list: After the product study a list of material is prepared. It specifies types (quality) and quantity of materials to be used, substitute of the materials, quantity and proportion of materials to be used, process to be followed, pre-requisites and condition required etc. While preparing specification list consideration to expected amount of wastage is given. It must be customised to adopt changes in the product.

(d) Test runs: Sample or test runs under specified conditions are carried out and sample products are tested for the desired quality and quantity. Any deviation from the specification is noted down and specification list is updated.

(b) Difference between Fixed and Flexible Budgets:

Sl. No.	Fixed Budget	Flexible Budget
1.	It does not change with actual volume of activity achieved. Thus it is known as rigid or inflexible budget	It can be re-casted on the basis of activity level to be achieved. Thus it is not rigid.
2.	It operates on one level of activity and under one set of conditions. It assumes that there will be no	It consists of various budgets for different levels of activity

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	change in the prevailing conditions, which is unrealistic.	
3.	Here as all costs like - fixed, variable and semi-variable are related to only one level of activity so variance analysis does not give useful information.	Here analysis of variance provides useful information as each cost is analysed according to its behaviour.
4.	If the budgeted and actual activity levels differ significantly, then the aspects like cost ascertainment and price fixation do not give a correct picture.	Flexible budgeting at different levels of activity facilitates the ascertainment of cost, fixation of selling price and tendering of quotations.
5.	Comparison of actual performance with budgeted targets will be meaningless specially when there is a difference between the two activity levels.	It provides a meaningful basis of comparison of the actual performance with the budgeted targets.

(c) Some common methods of venture capital financing are as follows:

(i) **Equity financing:** The venture capital undertakings generally require funds for a longer period but may not be able to provide returns to the investors during the initial stages. Therefore, the venture capital finance is generally provided by way of equity share capital. The equity contribution of venture capital firm does not exceed 49% of the total equity capital of venture capital undertakings so that the effective control and ownership remains with the entrepreneur.

(ii) **Conditional loan:** A conditional loan is repayable in the form of a royalty after the venture is able to generate sales. No interest is paid on such loans. In India venture capital financiers charge royalty ranging between 2 and 15 per cent; actual rate depends on other factors of the venture such as gestation period, cash flow patterns, risk and other factors of the enterprise. Some Venture capital financiers give a choice to the enterprise of paying a high rate of interest (which could be well above 20 per cent) instead of royalty on sales once it becomes commercially sound.

(iii) **Income note:** It is a hybrid security which combines the features of both conventional loan and conditional loan. The entrepreneur has to pay both interest and royalty on sales but at substantially low rates. IDBI's VCF provides funding equal to 80 – 87.50% of the projects cost for commercial application of indigenous technology.

(iv) **Participating debenture:** Such security carries charges in three phases — in the start up phase no interest is charged, next stage a low rate of interest is charged up to a particular level of operation, after that, a high rate of interest is required to be paid.

(d) There are two risks associated with this principle:

(i) **Business risk:** It is an unavoidable risk because of the environment in which the firm has to operate and it is represented by the variability of earnings before interest and tax (EBIT). The variability in turn is influenced by revenues and expenses. Revenues and expenses are affected by demand of firm products, variations in prices and proportion of fixed cost in total cost.

(ii) **Financial risk:** It is a risk associated with the availability of earnings per share caused by use of financial leverage. It is the additional risk borne by the shareholders when a firm uses debt in addition to equity financing.

Generally, a firm should neither be exposed to high degree of business risk and low degree of financial risk or vice-versa, so that shareholders do not bear a higher risk.

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6. (a) Working Notes

Standard Costs

	Rs.
Direct materials (6,000 × Rs. 12)	72,000
Direct labour (6,000 × Rs. 4.40)	26,400
Variable overheads (6,000 × Rs. 3)	18,000
Total	1,16,400

Actual Cost

Direct Materials 12,670 × 5.70	72,219
Direct wages	27,950
Variable overhead incurred	20,475
Total	1,20,644

Total Variance = SC- AC = 1,16,400 –1,20,644 = Rs. 4,244 (A)

Missing Figures

1. Actual Direct Labour Hours (DLH)

We can find out this through Variable overhead efficiency variance of Rs. 1,500 adverse

VOH Efficiency Variance = SR (SH – AH)

1,500 A	=	3 (6,000 – AH)
-1,500	=	18,000 – 3 AH
3AH	=	18,000 + 1,500 = 19,500
AH = 19,500/3	=	6,500 Actual Hours i.e. Actual DLH.

2. Actual Labour Rate per hour = $\frac{\text{Rs. } 27,950}{6,500 \text{ DLH}} = \text{Rs. } 4.30$

Relevant Variances:

1	Material Variances:	
	(a) MCV = SC – AC = 72,000 – 72,219 =	Rs. 219 (A)
	(b) MPV = AQ (SR – AR) = 12,670 (6 – 5.70) =	Rs. 3,801 (F)
	or = 19,000 (6 – 5.70) =	Rs. 5,700(F)
	(c) MUV = SR (SQ – AQ) = 6 (6,000 × 2 – 12,670)	
	= 6 (12,000 – 12,670) =	Rs. 4,020 (A)
2.	Labour Variances:	
	(a) LCV = SC – AC = 26,400 – 27,950 =	Rs. 1,550 (A)
	(b) LRV = AHP (SR – AR) = 6,500 (4.40 – 4.30) =	Rs. 650 (F)
	(c) LEV = SR (SH – AHP) = 4.40 (6,000 – 6,500) =	Rs. 2,200 (A)
3.	Variable Overhead Variances : (Output Basis)	
	(a) VOH Variance = SVO – AVO= 18,000 – 20,475	Rs. 2,475 (A)
	(b) Efficiency Variance = SR (SQ – AQ) (Note 1)	
	= 3 (6,500 – 6,000) =	Rs. 1,500 (A)
	(c) Expenditure Variance = (SVOSP – AVO) (Note 2)	
	= (19,500 – 20,475) =	Rs. 975 (A)

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Note :

1. One unit of production in one hour. For 6,500 DLH, 6,500 units should have been produced (SQ). But AQ = 6,000 units. i.e. less than SQ. Hence, it is adverse variance of Rs. 1,500.
2. Standard Variable Overhead on Standard Production = 6,500 × 3 = Rs. 19,500

(b) Working Notes:

(1) Computation of cost of debentures (K_d) :

$$K_d = \frac{\text{Interest}(1-t)+\frac{RV-NP}{3\text{years}}}{\frac{RV+NP}{2}} = \frac{\text{Rs.}95(1-0.35)+\frac{\text{Rs.}1{,}000-\text{Rs.}981.05}{3\text{years}}}{\frac{\text{Rs.}1{,}000+\text{Rs.}981.05}{2}}$$

$$= \frac{\text{Rs.}61.75+\frac{\text{Rs.}18.95}{3\text{years}}}{\frac{\text{Rs.}1{,}981.05}{2}} = 0.0687 \text{ or } 6.87\%$$

(2) Computation of cost of term loans (K_T) :

$$= r(1-t)$$

$$= 0.085\ (1-0.35) = 0.05525 \text{ or } 5.525\%$$

(3) Computation of cost of preference capital (K_P) :

$$K_p = \frac{\text{Preference Dividend} + (RV-NP)/n}{(RV+NP)/2}$$

$$= \frac{10.5+(100-98.15)/5}{(100+98.15)/2} = 0.1097 = 10.97\%$$

(4) Computation of cost of equity (K_e) :

$$= R_f + ß(R_m - R_f)$$

Or, = Risk free rate + (Beta × Risk premium)

= 0.055 + (1.1875× 0.08) = 0.15 or 15%

(i) Calculation of Weighted Average cost of capital Using market value weights

Source of Capital	Market value of capital structure (Rs. in millions)	Weights	After tax cost of capital (%)	WACC (%)
Equity share capital (150 million shares × Rs. 60)	9,000	0.813	15.000	12.195
10.5% Preference share capital (1 million shares × Rs.98.15)	98.15	0.0089	10.970	0.098
9.5 % Debentures (1.5 million × Rs.981.05)	1,471.575	0.1329	6.872	0.913
8.5% Term loans	500	0.0452	5.525	0.249
	11,069.725	1.000		13.455

(ii) Marginal cost of capital (MCC):

New capital of Rs.750 million will be raised in proportion of 20% Debt and 80% equity share capital i.e. Rs.150 million debt and Rs.600 million equity.

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Cost of equity shares (K_e) = Risk free rate + (Beta × Risk premium)

= 0.055 + (1.4375 × 0.08) = 0.17 or 17%

Cost of Debt (K_d):

for first Rs.100 million = 9.5% × (1 - 0.35) = 6.175%

for next Rs.50 million = 10% × (1 - 0.35)= 6.5%

Marginal Cost of Capital $= 0.17 \times \frac{Rs.600m}{Rs.750m} + \left(0.06175 \times \frac{Rs.100m}{Rs.750m} + 0.065 \times \frac{Rs.50m}{Rs.750m} \right)$

= 0.136 + (0.008 + 0.004) = 0.148 or 14.8%

7. (a) Difference between cost control and cost reduction are tabulated as below:

Cost Control	Cost Reduction
1. Cost control aims at maintaining the costs in accordance with the established standards.	1. Cost reduction is concerned with reducing costs. It challenges all standards and endeavours to better them continuously
2. Cost control seeks to attain lowest possible cost under existing conditions.	2. Cost reduction recognises no condition as permanent, since a change will result in lower cost.
3. In case of Cost Control, emphasis is on past and present	3. In case of cost reduction it is on present and future.
4. Cost Control is a preventive function	4. Cost reduction is a corrective function. It operates even when an efficient cost control system exists.
5. Cost control ends when targets are achieved	5. Cost reduction has no visible end.

(b) Net Realisable Value method: The realisation on the disposal of the by-product may be deducted from the total cost of production so as to arrive at the cost of the main product. For example, the amount realised by the sale of molasses in a sugar factory goes to reduce the cost of sugar produced in the factory.

When the by-product requires some additional processing and expenses are incurred in making it saleable to the best advantage of the concern, the expenses so incurred should be deducted from the total value realised from the sale of the by-product and only the net realisations should be deducted from the total cost of production to arrive at the cost of production of the main product. Separate accounts should be maintained for collecting additional expenses incurred on:

(i) further processing of the by-product, and

(ii) selling, distribution and administration expenses attributable to the by-product.

(c) To achieve wealth maximization, a finance manager has to take careful decision in respect of:

(i) **Investment decisions**: These decisions relate to the selection of assets in which funds will be invested by a firm. Funds procured from different sources have to be invested in various kinds of assets. Long term funds are used in a project for various fixed assets and also for current assets. The investment of funds in a project has to be made after careful assessment of the various projects through capital budgeting. A part of long term funds is also to be kept for financing the working capital requirements. Asset management policies are to be laid down regarding various items of current assets. The inventory policy would be determined by the production manager and the finance manager keeping in view the requirement of production and the future price estimates of raw materials and the availability of funds.

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(ii) **Financing decisions:** These decisions relate to acquiring the optimum finance to meet financial objectives and seeing that fixed and working capital are effectively managed. The financial manager needs to possess a good knowledge of the sources of available funds and their respective costs and needs to ensure that the company has a sound capital structure, i.e. a proper balance between equity capital and debt. Financing decisions also call for a good knowledge of evaluation of risk, e.g. excessive debt carried high risk for an organization's equity because of the priority rights of the lenders.

(iii) **Dividend decisions:** These decisions relate to the determination as to how much and how frequently cash can be paid out of the profits of an organisation as income for its owners/shareholders. The dividend decision thus has two elements – the amount to be paid out and the amount to be retained to support the growth of the organisation, the latter being also a financing decision; the level and regular growth of dividends represent a significant factor in determining a profit-making company's market value, i.e. the value placed on its shares by the stock market.

All three types of decisions are interrelated, the first two pertaining to any kind of organisation while the third relates only to profit-making organisations, thus it can be seen that financial management is of vital importance at every level of business activity, from a sole trader to the largest multinational corporation.

(d) Limitations of ARR

The accounting rate of return technique, like the payback period technique, ignores the time value of money and considers the value of all cash flows to be equal.

The technique uses accounting numbers that are dependent on the organization's choice of accounting procedures, and different accounting procedures, e.g., depreciation methods, can lead to substantially different amounts for an investment's net income and book values.

The method uses net income rather than cash flows; while net income is a useful measure of profitability, the net cash flow is a better measure of an investment's performance.

Furthermore, inclusion of only the book value of the invested asset ignores the fact that a project can require commitments of working capital and other outlays that are not included in the book value of the project.

(e) (i) Material Requisition Note: It is also known as material requisition slip, It is the voucher of the authority regarding issue of materials for use in the factory or in any of its departments. Generally it is prepared by the production department and materials are withdrawn on the basis of material requisition list or bill of materials. If no material list has been prepared, it is desirable that the task of the preparation of material requisition notes be left to the planning department or by the department requires the materials. Usually, a foreman's authority is enough but, in the case of costly materials, it would be desirable to have such requisitions duly approved by some higher authority, like the superintendent or works manager before these are presented to Stores. Apart from sending a material requisition to store a copy is sent to cost accounting department and one copy is retained as office copy.

(ii) Cash Planning is a technique to plan and control the use of cash. This protects the financial conditions of the firm by developing a projected cash statement from a forecast of expected cash inflows and outflows for a given period. This may be done periodically either on daily, weekly or monthly basis. The period and frequency of cash planning generally depends upon the size of the firm and philosophy of management. As firms grows and business operations become complex, cash planning becomes inevitable for continuing success.

The very first step in this direction is to estimate the requirement of cash. For this purpose cash flow statements and cash budget are required to be prepared.

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