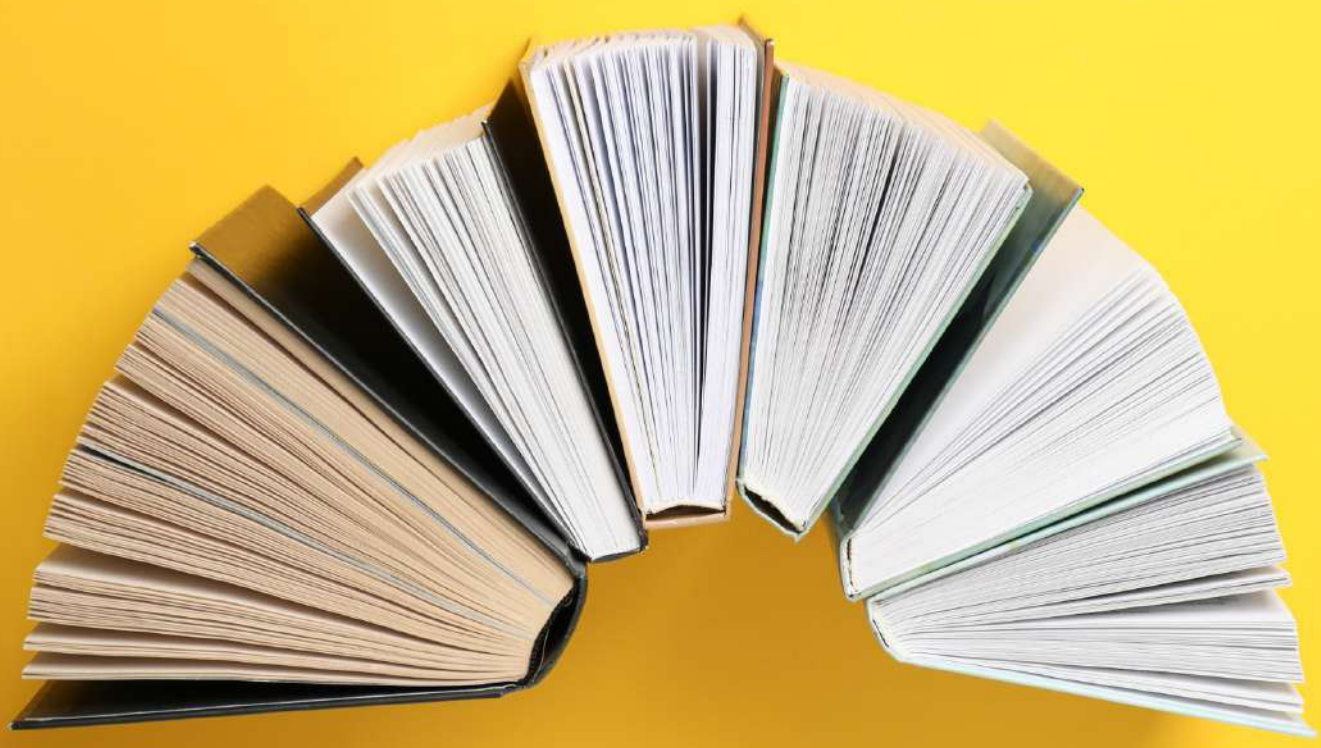
Cost & Management Accounting and Financial Management

Suggested Answers

Compilation

By

Budding CMA



www.buddingcma.in

Support us by
checking out our social handles

Visit our website: https://www.buddingcma.in

[Kindly register to get all the updates instantly]

Following on Instagram:

Account Name: BUDDING_CMA.POSITIVITY

https://instagram.com/budding_cma.positivity?igshid=3d0y3ravpjey

Join us on Telegram:

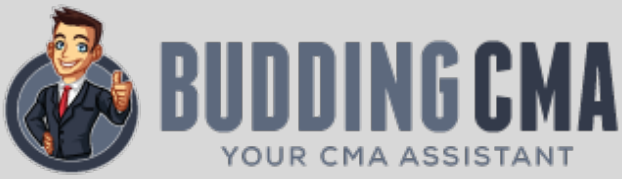
Channel Name: Budding CMA

https://t.me/buddingcma

Thank you for all the SUPPORT

Index

Sl. No.	Exam Term	Pg.no.
1	June 2017	1
2	December 2017	14
3	June 2018	37
4	December 2018	53
5	June 2019	73
6	December 2019	97



INTERMEDIATE EXAMINATION
GROUP - III
(SYLLABUS 2016)

SUGGESTED ANSWERS TO QUESTIONS
JUNE - 2017

Paper-10 : COST & MANAGEMENT ACCOUNTING AND FINANCIAL MANAGEMENT

Time Allowed : 3 Hours **Full Marks : 100**

The figures in the margin on the right side indicate full marks.
All working must form part of your answer. Assumptions, if any must be clearly indicated.
Please (i) Write answers to all parts of a question together.
(ii) Open a new page for answer to a new question.
(iii) Attempt the required number of questions only.

Part – A
(Cost and Management Accounting)

Section - I
Answer the following questions

1. (a) Choose the correct answer from the given four alternatives: 1×6=6

(i) Type of accounting which measures, reports and analyse non-financial and financial information to help in decision making is called:
- **(A) Financial Accounting**
- **(B) Management Accounting**
- **(C) Cost Accounting**
- **(D) Green Accounting**

(ii) Which one of the following is not considered as a method of Transfer Pricing?
- **(A) Negotiated Transfer Pricing**
- **(B) Market Price Based Transfer Pricing**
- **(C) Fixed Cost Based Transfer Pricing**
- **(D) Opportunity Cost Based Transfer Pricing**

(iii) In cost accounting, purpose of variance analysis is to:
- **(A) understand reasons for variances.**
- **(B) take remedial measures.**
- **(C) improve future performance.**
- **(D) All of the above**

(iv) Absorption Costing is also known as:
- **(A) Total Costing**
- **(B) Committed Costing**
- **(C) Target Costing**
- **(D) Discretionary Costing**

(v) Which of the following is not correct with regard to Margin of Safety (MOS)?
- **(A) MOS = $\frac{\text{Profit}}{\text{PV Ratio}}$**
- **(B) MOS = Total Sales – Sales at BEP**
- **(C) MOS = $\frac{\text{Total Sales - Sales at BEP}}{\text{Total Sales}} \times 100$**
- **(D) MOS = PV Ratio × Sales – Fixed Cost**

(vi) Which one of the following is not to be considered for preparing a production budget?

(A) The production plan of the organization
(B) The Sales Budget
(C) Research and Development Budget
(D) Availability of Raw Materials

(b) Match Column A with Column B: 1×4=4

Column 'A'		Column 'B'	
1.	Learning Curve	(A)	Negotiated Pricing
2.	Zero Base Budgeting	(B)	Human Phenomenon
3.	Transfer Price	(C)	Fixed Costs are charged to Cost of Production
4.	Absorption Costing	(D)	Discretionary Cost

(c) State whether the following statements are True or False: 1×4=4

(i) Standard Costs are arrived on the basis of costs incurred in the past.
(ii) Experience Curve effects are reinforced when two or more products share a common resource.
(iii) Preparation of a Master Budget precedes preparation of Functional Budgets.
(iv) Other variables remaining constant, a hike in selling price per unit will lower the Break Even Point.

Answer:

1. (a) (i) (B)
(ii) (C)
(iii) (D)
(iv) (A)
(v) (D)
(vi) (C)

(b) (1) (B)
(2) (D)
(3) (A)
(4) (C)

(c) (i) False
(ii) False
(iii) False
(iv) True

Section - II

Answer any three questions from Question No. 2, 3, 4 and 5.
Each Question carries 12 Marks.

2. (a) The anticipated sales of Electronic Corporation Ltd. is ₹ 4,00,000 and unit selling price is ₹ 20 each. The per unit cost of direct material is ₹ 9, labour is ₹ 3 and other variable expenses are ₹ 3 per unit. The company is earning a net profit of 5% and to improve the profitability, the following proposals were discussed at the Executive Committee Meeting:

(i) The present administrative setup is on the regional basis and it was felt that centralization will reduce the fixed cost by ₹ 12,000.
(ii) The Production Manager has agreed that he will try to work on a cost reduction programme which will reduce the cost by ₹ 1 per unit but there will be little impact on the quality which will be negligible to the customer.
(iii) The Sales Manager opposed the two proposals and suggests that it may be possible to increase the number of units sold by 20%, provided the selling price is reduced by 5%.

Suggested Answer_Syllabus 2016_Jun2017_Paper 10

(iv) Alternatively, as per Sales Manager, if the selling price is increased by 10%, the sales number of units will be reduced by 5%.

As the Cost and Management Accountant of the company, evaluate the aforesaid four proposals and also put forward your suggestions to improve the situation.

(b) Calculate Margin of Safety from the following information:

Sales ₹ 30,00,000; Fixed expenses ₹ 9,00,000; Profit ₹ 6,00,000 8+4=12

Answer:

2. (a)

Particulars	Per Unit (₹)	Total (₹)
Sales (20,000 units)	20	4,00,000
Variable Costs		
-Direct Materials	9	1,80,000
-Labour	3	60,000
-Other variable Expenses	3	60,000
Total variable cost	15	3,00,000
Contribution	5	1,00,000
Less: Profit @ 5% of 4,00,000		20,000
Total Fixed Cost		80,000

	(i)	(ii)	(iii)	(iv)
Proposal	Central administration (Reduction in F.C. by ₹12,000)	Variable cost Reduction by ₹ 1 per unit	20% increase in Sales units with 5% reduction in selling price	10% increase in Selling price and 5% reduction in sales units
Sales(units)	20,000	20,000	24,000	19,000
Selling price per unit (₹)	20	20	19	22
Variable cost (₹)	15	14	15	15
Contribution / unit	5	6	4	7
Total Contribution (₹)	1,00,000	1,20,000	96,000	1,33,000
Less: Fixed cost (₹)	68.000	80,000	80,000	80,000
Net Profit (₹)	32.000	40,000	16,000	53,000
Anticipated Profit (₹)	20.000	20,000	20,000	20,000
Increase (Decrease) in profit (₹)	(+) 12,000	(+)20,000	(-)4,000	(+)33,000

Conclusion: The proposal of Sales Manager (i.e., iii) is not at all acceptable as this will result in loss of ₹ 4,000. The proposal (ii), with a profit of ₹ 20,000, will have little impact on quality. This proposal is fraught with marketing dangers. The lower quality of the product will have long-range disadvantages, as compared to the product of the competitors. The Sales Manager's proposal – (iv) is really attractive, as it will fetch additional profit worth ₹ 33,000. The proposal – (i) will yield additional profit of ₹ 12,000. As Cost and Management Accountant of the company, I will recommend combination of proposals (i) and (iv).

(b) P/V Ratio = (Fixed expenses + Profit / Sales) × 100
= ₹ [(9,00,000 + 6,00,000) / 30,00,000] × 100
= (15,00,000 / 30,00,000) × 100 = 50%

Margin of Safety = Profit ÷ P/V Ratio = 6,00,000 ÷ 50% = 12, 00, 000

Suggested Answer_Syllabus 2016_Jun2017_Paper 10

3. (a) In MJ Limited the standard set for material consumption was 100 kg. @ ₹ 2.25 per kg. In a cost period:
Opening stock was 100 kg. @ ₹ 2.25 per kg.
Purchases made 500 kg. @ ₹ 2.15 per kg.
Consumption 110 kg.
As a Cost and Management Accountant you have to calculate:
(i) Material Usage Variance, and
(ii) Material Price Variance in the following three situations:
(A) When variance is calculated at point of purchase.
(B) When variance is calculated at point of issue on FIFO basis.
(C) When variance is calculated at point of issue on LIFO basis.

(b) From the following information compute the Fixed Overhead Variance, Expenditure Variance and Volume Variance:

	Budget Expenses (₹)	Actual Expenses (₹)
Fixed Overheads	40,000	40,800
Units of Production	20,000	20,800
Time for each unit of production	2 hours	
Actual Hours worked		40,200

6+6=12

Answer:

3. (a) (i) MJ Limited
Computation of Material Usage Variance
Material Usage Variance = SQSP - AQSP
= SP(SQ - AQ)
= 2.25(100 - 110)
= 22.50 (A)

(ii) (1) When Variance is calculated at the point of purchase:
Price variance = AQSP - AQAP
= (110 × 2.25)-(110 × 2.15)
= 11(F)

(2) When variance is calculated at the point of Issue on FIFO basis
Price variance = AQSP - AQAP
= (110 × 2.25)-([100 × 2.25]+[10 × 2.15])
= 1 (F)

(3) When variance is calculated at the point of issue on LIFO basis
Price variance = AQSP - AQAP
= (110 × 2.25)-(110 × 2.15)
= 247.50 - 236.50
= 11(F)

(b) Fixed Overhead Cost Variance = 41600 – 40800 = 800 (F)
Expenditure Variance = 40000 – 40800 – 800 (A)
Volume Variance = 41600 – 40000 = 1600 (F)

4. (a) A company is at present working at 90% of its capacity and producing 13,500 units per annum. It operates a flexible budgetary control system. The following figures are obtained from its budget:

	90%	100%
	(₹)	(₹)
Sales	15,00,000	16,00,000
Fixed expenses	3,00,500	3,00,600
Semi-fixed expenses	97,500	1,00,500
Variable expenses	1,45,000	1,49,500

Units made	**13,500**	**15,000**

Labour and material costs per unit are constant under present conditions. Profit margin is 10%.

(i) You are required to determine the differential cost of producing 1,500 units by increasing capacity to 100%?

(ii) What would you recommend for an export price for these 1,500 units if overseas prices are much lower than indigenous prices?

(b) A company has two divisions, manufacturing and assembly. At a normal volume of 250,000 units of component YPY per year, production costs per unit are:

Direct materials	**40**
Direct labour	**20**
Variable factory overhead	**12**
Fixed factory overhead	**42**
Total	**₹ 114**

The manufacturing division has been manufacturing and selling 2,50,000 components per year to outside buyers for ₹ 136 each. However, the division can manufacture 350,000 components per year. The assembly division has been buying the components from outside suppliers for ₹ 130 each. The assembly division has offered to purchase 90,000 units of component YPY from the manufacturing division at the rate of ₹ 104 per unit. Should the manager of Electrical Division accept the offer? Will an internal transfer be of any benefit to the company? 6+6=12

Answer:

4. (a)

Computation of material and labour cost

Particulars	₹	₹
Sales at present		15,00,000
(-)Profit @ 10%		1,50,000
Total cost		13,50,000
(-) All costs other than material & labour		
Fixed expenses	3,00,500	
Semi-fixed expenses	97,500	
Variable expenses	1,45,000	5,43,000
Material & Labour cost		8,07,000

(i) Statement showing differential cost of 1500 units:

Particulars	₹
Material & Labour (8,07,000 × 1500/13,500)	89,667
Fixed expenses (3,00,600-3,00,500)	100
Semi-fixed expenses (1,00,500-97,500)	3,000
Variable expenses (1,49,500-1,45,000)	4,500
Differential cost	97,267

Differential cost per unit = 97,267/1,500 = ₹ 64.84.

(iii) The minimum price for these 1,500 units should not be less than ₹ 64.84.

(b) Manufacturing Division manager should accept. As there is surplus capacity, the relevant costs to the division is the VC, i.e., ₹ 72 per component

The increased Contribution Margin to the Manufacturing Division would be 90,000 × (₹ 104 - 72) = ₹ 2,88,000.

The company would be better off with an internal transfer. Currently paying ₹ 130 for components that could be made internally for incremental cost of ₹ 72, the company would save 90,000 × (130 -72) = ₹ 5,22,000 per year.

5. Write short note on any three of the following: 4×3=12

(a) Differential Cost
(b) Angle of Incidence
(c) Principal Budget Factor
(d) Learning Curve

Answer:

5. (a) Differential Cost is the change in the costs which results from the adoption of an alternative course of action. The alternative actions may arise due to change in sales volume, price, product mix (by increasing, reducing or stopping the production of certain items), or methods of production, sales, or sales promotion, or they may be due to 'make or buy' take or refuse' decisions. When the change in costs occurs due to change in the activity from one level to another, differential cost is referred to as incremental cost or detrimental cost.

(b) Angle of incidence: Angle of Incidence is an angle formed at the intersection point of total Sales line and total cost line in a formal break even chart. If the angle is larger, the rate of growth of profit is higher and if the angle is lower, the rate of growth of profit is lower. So, growth of profit or profitability rate is depicted by Angle of Incidence.

(c) Principal Budget Factor: Budgets cover all the functional areas of the organisation. For the effective implementation of the budgetary system, all the functional areas are to be considered which are interlinked. Because of these interlinks, certain factors have the ability to affect all other budgets. Such factor is known as principle budget factor.

Principal Budget factor is the factor the extent of influence of which must first be assessed in order to ensure that the functional budgets are reasonably capable of fulfillment. A principal budget factor may be lack of demand, scarcity of raw material, non-availability of skilled labour, inadequate working capital etc. If for example, the organisation has the capacity to produce 2500 units per annum. But the production department is able to produce only 1800 units due to non-availability of raw materials. In this case, non-availability of raw materials is the principal budget factor (limiting factor). If the sales manger estimates that he can sell only 1500 units due to lack of demand. Then lack of demand is the principal budget factor. This concept is also known as key factor, or governing factor. This factor highlights the constraints with in which the organisation functions.

(d) Learning Curve: It is essentially a measure of the experience gained in production of an article by an organization. As more and more units are reproduced, workers involved in production become more efficient than before. Each subsequent unit takes fewer man hour to produce. The learning curve exists during a worker's start up or familiarization period on a particular job. After the limits of experimental learning are reached, productivity tends to stabilize and no further improvement is possible.

The learning curve will pass through three different phases. In the first phase, there will be gradual increase in production rate until the maximum expected rate is reached and this phase is generally steep. In the second phase, the learning rate will gradually deteriorate because of the limitations of equipment. In the third phase, the production rate begins to decrease due to a reduction in customer requirements and increase in costs.

Under the Learning curve model, the cumulative average time per unit produced is assumed to fall by a constant percentage every time total output of the unit doubles.

Learning curve is a geometrical operation, as the identical operation is increasingly repeated.

Learning curve is essentially a measure if the experience gained in production of an article by an organization. As more and more units re-produced, workers involved in production become more efficient than before. Each subsequent unit takes fewer man-hours or produce. The Learning curve exists during a worker's start up or familiarization period on a particular job. After the limits of experimental learning are reached, productivity tends to stabilize and no further improvement is possible. The learning curve ratio can be calculated with the help of the following formula:

$$\text{Learning curve ratio} = \frac{\text{Average Cost of First 2 Units}}{\text{Average Labour Cost of First Units}}$$

Graphical presentation of learning curve

The learning curve (not to be confused with experience curve) is a graphical representation of the phenomenon explained by Theodore P. Wright in his "Factors Affecting the Cost of Airplanes", 1936. It refers to the effect that learning had on labour productivity in the aircraft industry, which translates into a relation between the cumulative number of units produced (X) and the average time (or labour cost) per unit (Y), which resulted in a convex downward slope, as seen in the adjacent diagram.

There is a simple rationalisation behind all this: the more units produced by a given worker, the less time this same worker will need to produce the following units, because he will learn how to do it faster and better. Therefore, when a firm has higher cumulative volume of production, its time (or labour cost) per unit will be lower. Wright's learning curve model is defined by the following function:

$$Y = a \times \frac{\text{Log}_b}{\text{Log}_2}$$

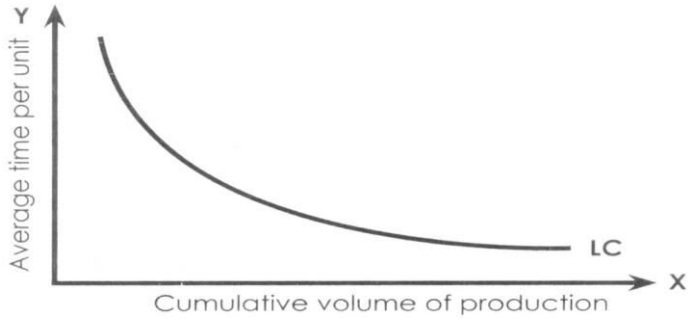
where:

Y = average time (or labour cost) per unit

a = time (or labour cost) per unit

X = cumulative volume of production

b = learning rate (%)



Some important implications arise from this curve. If the time (or labour cost) per unit decreases as the cumulative output increases, this will mean that firms that have been producing more and for a longer period, will have lower average time per unit and thus dominate the market.

Suggested Answer_Syllabus 2016_Jun2017_Paper 10

Part – A
(Financial Management)

Section - III

6. Answer the following questions:

(a) Choose the correct answer from the given four alternatives: 1×6=6

(i) Which of the following is the main objective of financial management?
- **(A) Revenue Maximisation**
- **(B) Profit Maximisation**
- **(C) Wealth Maximisation**
- **(D) Cost Minimisation**

(ii) Which one of the following activities is outside the purview of financing decision in financial management?
- **(A) Identification of the source of funds**
- **(B) Measurement of the cost of funds**
- **(C) Deciding on the time of raising the funds**
- **(D) Deciding on the utilization of the funds**

(iii) A firm has a capital of ₹ 10 lakhs, sales of ₹ 5 lakhs, gross profit of ₹ 2 lakhs and expenses of Rs.1 lakh. The Net Profit Ratio is:
- **(A) 50%**
- **(B) 40%**
- **(C) 20%**
- **(D) 10%**

(iv) Which of the following forms of equity financing is especially designed for funding High Risk & High Reward projects?
- **(A) ADR**
- **(B) GDR**
- **(C) FCCB**
- **(D) Venture Capital**

(v) A process through which loans and other receivables are underwritten and sold in a form of asset is known as:
- **(A) Factoring**
- **(B) Forfeiting**
- **(C) Securitisation**
- **(D) Bill Discounting**

(vi) In Net Profit Ratio, the denominator is:
- **(A) Credit Sales**
- **(B) Net Sales**
- **(C) Cost of Sales**
- **(D) Cost of Goods Sold**

(b) Match Column 'A' with Column 'B. 1×4=4

Column 'A'		Column 'B'	
1.	Leverage	(A)	Control Limits
2.	Stochastic Model	(B)	Influence of one force over another
3.	Commercial Paper	(C)	Sold at Discount
4.	Factoring	(D)	Raise Short Term Finance through Receivables

(c) State whether the following statements are True or False: 1×4=4

(i) In case of mutually exclusive capital budgeting decision, all the feasible proposals may be accepted.

(ii) As per the Gordan Model, $K_e=D_1/P_0 + g$, where K_e = Cost of Equity, D_1 = Dividend, P_0 = Current market price of share and g = growth rate.

(iii) Gross Working Capital is the difference between total current assets and total current liabilities.

(iv) Working Capital Turnover Ratio may be classified under Activity Ratio.

Suggested Answer_Syllabus 2016_Jun2017_Paper 10

Answer:

6. (a) (i) (C)
(ii) (D)
(iii) (C)
(iv) (D)
(v) (C)
(vi) (B)

(b) (1) (B)
(2) (A)
(3) (C)/(D)
(4) (D)/(C)

(c) (i) False
(ii) True
(iii) False
(iv) True

Section - IV

Answer any three questions from Question No. 7, 8, 9 and 10.
Each Question carries 12 Marks.

7. (a) From the following information, prepare a summarized Statement of Assets and Liabilities as on 31st March, 2017:

(i) Working Capital	**₹1,20,000**	
(ii) Reserves & Surplus	**₹ 80,000**	
(iii) Bank Overdraft	**₹ 20,000**	
(iv) Proprietary Ratio		**0.75**
(v) Current Ratio		**2.50**
(vi) Liquid Ratio		**1.50**

Your workings should form a part of your answer.

(b) From the following Summarised Statement of Assets and Liabilities of XYZ Ltd., prepare a Statement of Changes in the Working Capital.

	31st March			31st March	
LIABILITIES	**2015 (₹)**	**2016 (₹)**	**ASSETS**	**2015 (₹)**	**2016 (₹)**
Equity Share Capital	**3,00,000**	**4,00,000**	**Goodwill**	**1,15,000**	**90,000**
8% Preference Share Capital	**1,50,000**	**1,00,000**	**Land & Buildings**	**2,00,000**	**1,70,000**
Profit & Loss Account	**30,000**	**48,000**	**Plant & Machinery**	**80,000**	**2,00,000**
General Reserve	**40,000**	**70,000**	**Debtors**	**1,60,000**	**2,00,000**
Proposed Dividend	**42,000**	**50,000**	**Stock**	**77,000**	**1,09,000**
Creditors	**55,000**	**83,000**	**Bills Receivable**	**20,000**	**30,000**
Bills Payable	**20,000**	**16,000**	**Cash in hand**	**15,000**	**10,000**
Provision for Taxation	**40,000**	**50,000**	**Cash at Bank**	**10,000**	**8,000**
	6,77,000	**8,17,000**		**6,77,000**	**8,17,000**

Following additional information are available:

(i) Depreciation of ₹ 10,000 and ₹ 20,000 have been charged on Plant & Machinery and Land & Buildings respectively in 2016.

(ii) Interim dividend of ₹ 20,000 has been paid in 2016.

(iii) Income tax of ₹ 35,000 has been paid in 2016. **8+4=12**

Suggested Answer_Syllabus 2016_Jun2017_Paper 10

Answer:

7. (a) Working Notes:

(i) **Current Ratio**= Current Assets (CA)/Current Liabilities(CL) = 2.50 i.e., 2.5 :1.0
Working Capital = ₹ 1,20,000
Current Assets / Current Liabilities = 2.5
CA = 2.5 CL
CA – CL = 1,20,000
2.5 CL – CL = 1,20,000
1.5 CL = 1,20,000
CL = 1,20,000 / 1.5
= ₹ 80,000
CA = 2.5 CL
= 2.5 × 80,000
= ₹ 2,00,000

Note:
Bank Overdraft = ₹ 20,000
Other CL = ₹ 60,000 (balancing figure)
CL = ₹ 80,000

(ii) **Liquid Ratio=** Quick Assets/CL (Excluding Overdraft) = 1.50 i.e., 1.50:1.00
1.0 - ₹ 60,000
1.5 - ?
(1.5/1.00) × 60,000 = ₹ 90,000 (Quick Assets)
Stock = CA - Quick Assets
= 2,00,000 - 90.000 **= ₹ 1,10,000**

(iii) Proprietary Ratio = (Fixed Assets/ Proprietary Funds) = 0.75
i.e., Working capital/ Proprietary Funds = 0.25
Proprietary Funds = (1/0.25) × 1,20,000 = ₹ 4,80,000
Less: Reserves & Surplus = ₹ 80,000
Share Capital = ₹ 4,00,000

(iv) Fixed Assets = 4,80,000 × 0.75 = ₹ 3,60,000.

Summarized Statement of Assets and Liabilities as on 31st March, 2017

Liabilities		₹	Assets		₹
Share capital		4,00,000	Fixed Assets		3,60,000
Reserves & Surplus		80,000	Current Assets :		
Current Liabilities:			Stock	1,10,000	
Bank Overdraft	20,000		Quick Assets	90,000	2,00,000
Other C.L	60,000	80,000			
Total		5,60,000	Total		5,60,000

(b) **Calculation of changes In Working Capital:**

Current Assets	**2015 (₹)**	**2016 (₹)**
Debtors	1,60,000	2,00,000
Stock	77,000	1,09,000
B/R	20,000	30,000
Cash in hand	15,000	10,000
Cash at Bank	10,000	8,000
A: Total Current Asset	**2,82,000**	**3,57,000**

Current Liabilities	2015 (₹)	2016 (₹)
Creditors	55,000	83,000
B/P	20,000	16,000
B: Total Current Liabilities	75,000	99,000
Working capital (A-B)	2,07,000	2,58,000

Increase in working capital = 2,58,000 – 2,07,000 = ₹ 51,000.

8. (a) From the following data, compute the duration of the Operating Cycle for each of the two years:

	Year 1 (₹)	Year 2 (₹)
Stock:		
Raw Materials	**20,000**	**27,000**
Work-in-progress	**14,000**	**18,000**
Finished goods	**21,000**	**24,000**
Purchases	**96,000**	**1,35,000**
Cost of goods sold	**1,40,000**	**1,80,000**
Sales	**1,60,000**	**2,00,000**
Debtors	**32,000**	**50,000**
Creditors	**16,000**	**18,000**

Assume 360 days per year for computational purposes.

(b) The following information are available in respect of ABC company:

Liabilities	Amount (₹)	Assets	Amount (₹)
Equity share capital	**1,20,000**	**Fixed Assets**	**3,00,000**
Retained Earnings	**40,000**	**Current Assets**	**1,00,000**
10% Long Term Debt	**1,60,000**		
Current Liabilities	**80,000**		
	4,00,000		**4,00,000**

The company's total assets turnover ratio is 3, its fixed operating costs are ₹ 2,00,000 and its variable operating cost ratio is 40%. The income tax rate is 50%. Calculate the different types of leverages, given that the face value of share is ₹ 10. 6+6=12

Answer:

8. (a)

	Year 1	Year 2
Current Assets: 1. Raw Material Stock= Stock of raw materials/Purchases x 360	(20/96)x360 =75 days	(27/135)x360 =72 days
2. W1P turnover=(WIP/COGS)x360	(14/140)x360 =36 days	(18/180)x360 =36 days
3. Finished goods turnover= (Finished goods/COGS)x360	(21/140)x360 =54 days	(24/180)x360 =48 days
4. Debtors Turnover=(Debtors/Sales) x360	(32/160)x360 =72 days	(50/200)x360 =90 days
Total (A)	237 days	246 days
Creditors period =(Creditors/Purchases)x360	(16/96)x360 =60 days	(18/135)x360 =48 days
Total (B)	60 days	48 days
Operating Cycle=(A-B)	(237-60) =177days	(246-48) =198 days

Abbreviation used: COGS – Cost of Goods Sold.

(b) Total Assets Turnover Ratio = Sales / Total Assets = 3
Or, Sales/4,00,000 = 3
Or, Sales = 12,00,000

	₹
Sales	12,00,000
Operating Cost (40%)	4,80,000
Contribution	7,20,000
Less Fixed Operating Cost	2,00,000
EBIT	5,20,000
Less interest (10% of 1,60,000)	16,000
PBT	5,04,000
Tax at 50%)	2,52,000
PAT	2,52,000
Number of shares	12,000
EPS	₹ 21

Degree of Operating Leverage = Contribution/EBIT = 7,20,000/5,20,000 = 1.38
Degree of Financial leverage = EBIT / PBT = 5,20,000/5,04,000 = 1.03
Degree of Combined Leverage =1.38 × 1.03 = 1.42

9. (a) A company issued 10,000, 10% Preference Share of ₹ 10 each, cost of issue is ₹ 2 per share. Calculate cost of capital, assuming that the shares are issued (a) at par, (b) at 10% premium, and (c) at 5% discount.

(b) FB Chemical Ltd. has three potential projects, all with an initial cost of ₹20,00,000 and estimated life of five years. The capital budget for the year will only allow the company to accept one of the three projects. Given the discount rates and the future cash flows of each project, which project should the company accept?
Project 1 has an annual cash flow of ₹ 5,00,000 and discount rate of 6%
Project 2 has an annual cash flow of ₹ 6,00,000 and discount rate of 9%
Project 3 has the following cash inflow and discount rate of 15%

Year	1	2	3	4	5
Cash Inflows ₹	10,00,000	8,00,000	6,00,000	2,00,000	1,00,000

6+6=12

Answer:

9. (a) Cost of preference capital, (Kp) = D/NP
Where, Kp = Cost of preference capital D = Annual preference dividend NP = Net proceeds of preference shares.
When issued at par: (₹ 10,000/10,000 × 8) × 100 =12.5%
b) When issued at 10% premium: (₹ 10,000/10,000 × 9) × 100 = 11.11%
c) When issued at 5% discount: (₹ 10,000/10,000 × 7.5) × 100 =11.11% =13.33%

(b) NPV = PV of Inflow - PV of outflow
Project 1's NPV = ₹ [5,00,000 (.943+.889+.839+.792+.747) - 20,00,000] = ₹1,05,000
Project 2's NPV = ₹ [6,00,000 (.917+.841+.772+.708+.649) - 20,00,000] = ₹3,32,200
Project 3's NPV = ₹ 20,31,900 - 20,00,000 = 31,900.
Project 2 should be accepted as its NPV is maximum.

10. Write short note on any three of the following: 4×3=12
(a) Net Income Approach of Capital Structure
(b) Capital Asset Pricing Model
(c) Financial Leverage
(d) Window Dressing

Answer:

10. (a) Net Income Approach: This approach was advocated by David Durand. According to this approach, capital structure has relevancc3 and a firm can increase the value of

the firm and minimise the overall cost of capital by employing debt capital in its capital structure. Accordingly, greater the debt capital in the capital structure, lower shall be the overall cost of capital and more shall be the value of the firm. (Some assumptions may be included and the theory may be represented in graphical form).

(b) Capital Asset Pricing Model: Another technique that can be used to estimate the cost of equity is the capital asset pricing model approach. The capital asset pricing model explains the behaviour of security prices and provides a mechanism whereby investors could assess the impact of a proposed security investment on their overall portfolio risk and return. In other words, CAPM formally describes the risk required return trade off for securities. The assumptions for CAPM approach are:

i) The efficiency of the security
ii) Investor preferences.

The capital asset pricing model describes the relationship between the required rates of return, or the cost of equity capital and the non-diversifiable or relevant risk of the firm as reflected in its index of non-diversifiable risk. Symbolically,

$K_e = R_f + \beta (R_m - R_f)$

Where

K_e = Cost of equity capital

R_f = Risk free rate of return

R_m = Return on market portfolio

β = Beta of Security

(c) Financial Leverage: The Financial Leverage may be defined as a % increase in EPS associated with a given percentage increase in the level of EBIT. Financial leverage emerges as a result of fixed financial charge against the operating profits of the firm. The fixed financial charge appears in case the funds requirement of the firm is partly financed by the debt financing. By using this relatively cheaper source of finance, in the debt financing, the firm is able to magnify the effect of change in EBIT on the level of EPS. The significance of DFL may be interpreted as follows:

- Other things remaining constant, higher the DFL, higher will be the change in EPS for same change in EBIT.
- Higher the interest burden, higher is the DFL, which means more a firm borrows more is its risk.
- Since DFL depends on interest burden, it indicates risk inherent in a particular capital mix, and hence the name financial leverage.

(d) Window Dressing: The term window dressing means manipulation of accounts in a way so as to conceal vital facts and present the financial statements in a way to show a better position than what it actually is. On account of such a situation, presence of a particular ratio may not be a definite indicator of good or bad management For example a high stock turnover ratio is generally considered to be an indication of operational efficiency of the business. But this might have been achieved by unwarranted price reductions or failure to maintain proper stock of goods.

INTERMEDIATE EXAMINATION

GROUP - II

(SYLLABUS 2016)

SUGGESTED ANSWERS TO QUESTIONS

DECEMBER - 2017

Paper-10 : COST MANAGEMENT ACCOUNTING AND FINANCIAL MANAGEMENT

Time Allowed : 3 Hours **Full Marks : 100**

The figures in the margin on the right side indicate full marks.

All working must form part of your answer. Assumptions, if any must be clearly indicated.

Please (i) Write answer to all parts of a question together.
(ii) Open a new page for answer to a new questions.
(iii) Attempt the required number of questions only.

Part-A

(Cost and Management Accounting)

Section-I

Answer the following questions.

1. (a) Choose the correct answer from the given four alternatives: 1x6=6

(i) Which statement best describes the role of the management accountant?

(A) Management accountants prepare the financial statements for an organization.

(B) Management accountants facilitate the decision-making process within an organization.

(C) Management accountants make the principal decisions within an organization.

(D) Management accountants are basically information collectors.

(ii) In a factory when production is increased within the relevant range then:

(A) variable costs will vary on a per unit basis.

(B) variable costs will vary in total.

(C) fixed costs will vary in total.

(D) fixed and variable cost stay the same in total.

(iii) The main objective of budgetary control is:

(A) to define the goal of the firm

(B) to coordinate different departments

(C) to plan to achieve its goals

(D) All of the above

(iv) Method of pricing, when two separate pricing methods are used to price transfer of products from one subunit to another, is called:

(A) dual pricing

(B) functional pricing

(C) congruent pricing

(D) optimal pricing

(v) When are overhead variances recorded in a standard costing system?

(A) When the goods are transferred out of work-in-progress.

(B) When the factory overhead is applied to work-in-progress.

(C) When the cost of goods sold is recorded.

(D) When the direct labour is recorded.

(vi) Which of the following factors does not affect Learning Curve?

(A) Method of Production

(B) Labour Strike

(C) Shut Down

(D) Efficiency Rate

(b) Match the statement in Column I with the most appropriate statement in Column II: 1x4=4

Column I		Column II	
(i)	Market Based Price	(A)	Break-Even Analysis
(ii)	Decision Unit	(B)	Differential Cost
(iii)	Margin of Safety	(C)	Transfer Pricing
(iv)	Difference between costs of two alternatives	(D)	Zero-Base Budgeting

(c) State whether the following statements are *True* or *False:* 1x4=4

(i) The profit calculated under absorption costing and marginal costing is always equal.

(ii) A flexible budget takes into account only fixed costs.

(iii) At break-even point, margin of safety is nil.

(iv) An increase in production means an increase in overall productivity.

Answer:

1. (a)

(i) — (B)

(ii) — (B)

(iii) — (B)

(iv) — (A)

(v) — (B)

(vi) — *

*Wrong question and no options are true. Student attempting this question has been given full 1 mark.

1. (b)

(i) — (C)

(ii) — (D)

(iii) — (A)

(iv) — (B)

1. (c)

(i) False

(ii) False

(iii) True

(iv) False

Section II

Answer *any three* questions from Question No. 2, 3, 4 and 5.

Each question carries 12 Marks.

2. (a) The Asian Industries specialize in the manufacture of small capacity motors. The Cost Structure of a motor is as under:

Material	**₹ 50**
Labour	**₹ 80**
Variable overheads	**75% of labour cost.**

Fixed overheads of the company amounts to ₹ 2.4 lakhs per annum. The sale price of the motor is ₹ 230 each

(i) Determine the number of motors that have to be manufactured and sold in a year in order to break-even.

(ii) How many motors will have to be made and sold to make a profit of Rupees one lakh per year?

(iii) If the sale price is reduced by ₹ 15 each, how many motors will have to be sold to break-even?

(b) The table below shows the Costs and Profits of three different products — X, Y & Z, manufactured by Jerbera Co. Ltd.

	X	Y	Z	Total
	₹	₹	₹	₹
Sales	**3,00,000**	**1,80,000**	**1,20,000**	**6,00,000**
Variable Cost	**2,40,000**	**1,26,000**	**72,000**	**4,38,000**
Contribution	**60,000**	**54,000**	**48,000**	**1,62,000**
Fixed Cost				**81,000**
Profit				**81,000**

Can the profits of the company be increased by changing the sales mix of the products? Use Marginal Costing technique to arrive at your answer. 6+(2+2+2)=12

Answer:

2. (a)

(i)	Sales Price		₹ 230
	Less: Variable Cost		
	Material (₹)	50	
	Labour (₹)	80	
	V.O/H	60	₹ 190
	Contribution		₹ 40

B.E Sales × P/V Ratio = Fixed Cost

B.E. Sates x (230 -190)/230 = ₹ 2,40,000

Or B.E.Sales = ₹ 13,80,000

or 13,80,000/230 = 6,000 motor

(ii) Total Contribution = ₹3,40,000 (Profit + fixed cost ₹2,40,000)

If the contribution is ₹40, the number of motors = 1

If the contribution is ₹3,40,000, the number of motors = 3,40,000 ÷ 40 = 8,500 motors.

(iiii)	Reduced Selling-Price	₹ 215
	Less Variable Cost	190
	Revised contribution	25

B.F. Sales = 2,40,000 ÷ 25 = 9,600 motors.

2. (b)

Relative profitability of Products

	X	Y	Z	Total
	₹	₹	₹	₹
Sales	3, 00, 000	1,80,000	1,20,000	6,00,000
Variable Cost	2, 40, 000	1,26,000	72,000	4,38,000
Contribution	60, 000	54,000	48, 000	1,62,000
Fixed Cost				81,000
Profit				81,000
P/V Ratio	20%	30%	40%	27%

The above table shows that product Y and Z, are more profitable than X. Keeping total production same, company should change the sales mix in a way more of product Z and y are produced. If company decides to use its production capacity more for product Y and Z than X, then the effect on profit if sale of product Y and Z is increased by ₹ 60,000 each and product X by reducing ₹ 1,20,000.

	X	Y	Z	Total
	₹	₹	₹	
Sales	1,80,000	2,40, 000	1,80, 000	6, 00,000
Variable Cost	1,44,000	1,68,000	1,08,000	4,20,000
Contribution	36, 000	72,000	72, 000	1,80,000
Fixed Cost				81,000
Profit				99,000

From the above table, we can observe that proposed change in product mix leads to an increase in profit from ₹ 81,000 to ₹ 99,000.

3. (a) X Ltd. uses budgetary control and standard costing system. The following data are available:

Product	Budgeted		Actual	
	Units to be sold	Sales value (₹)	Units sold	Sales value (₹)
A	**100**	**1,200**	**100**	**1,100**
B	**50**	**600**	**50**	**600**
C	**100**	**900**	**200**	**1,700**
D	**75**	**450**	**50**	**300**
	325	**3,150**	**400**	**3,700**

Calculate:

(i) Sales Volume Variance

(ii) Sales Price Variance

(iii) Sales Variance

(b) The standard labour and the actual labour engaged in a week for a job are as under:

	Skilled workers	Semi-skilled workers	Unskilled workers
A. Standard number of workers in the gang	**32**	**12**	**6**
B. Standard rate of wages per hour (₹)	**3**	**2**	**1**
C. Actual number of workers employed in the gang during the week	**28**	**18**	**4**
D. Actual rate of wages per hour (₹)	**4**	**3**	**2**

During the 40-hour working week, the gang produced 1800 standard labour hours of work.

Calculate:

(i) Labour Sub-efficiency Variance

(ii) Labour Mix or Gang Variance

(iii) Labour Efficiency Variance

(iv) Labour Rate Variance

(v) Labour Cost Variance **$4^1/_2+7^1/_2=12$**

Answer:

3. (a)

SV_1 – Actual Sales realisation given = ₹3,700

SV_2 – Actual Sales at Standard Price =

Products	Units sold	Standard Price	Amount
		(₹)	(₹)
A	100	12	1,200
B	50	12	600
C	200	9	1,800
D	50	6	300
	400		3,900

SV_4 – Budgeted Sales = ₹ 3,150.

(i) Sales Price Variance =

$SV_1 – SV_2$ = ₹ 3,700 – ₹ 3,900 or ₹ 200(A)

(ii) Sales Volume Variance =

$SV_2 – SV_4$ = ₹ 3,900 – ₹ 3,150 or ₹ 750(F)

(iii) Sales Variance = $SV_1 – SV_4$

= ₹3,700 – ₹ 3,150 or ₹ 550(F).

3. (b)

Analysis of Given Data

	Standard Data			Actual Data		
	Hours	Rate (₹)	Value (₹)	Hours	Rate (₹)	Value (₹)
Skilled	1,280	3	3,840	1,120	4	4,480
Semi-skilled	480	2	960	720	3	2,160
Unskilled	240	1	240	160	2	320
	2,000		5,040	2,000		6,960

Computation of required values

	SRSH(1) (₹)	SRRSH (2)(₹)	SRAH (3)(₹}	ARAH (4) (₹)
Men	3x1,152 = 3,456	3,840	3x1,120 = 3,360	4,480
Women	2x432 = 864	960	2x720 = 1,440	2,160
Boys	1x216 = 216	240	1x160 = 160	320
	= 4,536	5,040	= 4,960	6,960

Computation of SH:

SH = (SH for that worker/SH for all the worker) x AQ for that worker.

For Skilled worker = (1,280/2,000) × 1,800 = 1,152

For Semi-Skilled worker = (480/2,000) × 1,800 = 432

For Un-Skilled worker = (240/2,000) × 1,800 = 216

Where

(1) SRSH= Standard Cost of Standard Labour = ₹4,536

(2) SRRSH = Revised Standard Cost of Labour = ₹5,040

(3) SRAH = Standard Cost of Actual Labour = ₹4,960

(4) ARAH = Actual Cost of Labour = ₹6,960

Computation of Labour Variances:

(i) Labour Sub-efficiency Variance = (1)-(2) = (4,536 - 5,040) = ₹ 504 (A)

(ii) Labour Mix or Gang Variances (2)-(3) = (5,040 - 4,960) = ₹ 80 (F)

(iii) Labour Efficiency Variance =(1)-(3) = (4,536 - 4,960) = ₹ 424 (A)

(iv) Labour Rate Variance = (3)-(4) = (4,960 - 6,960) = ₹ 2,000 (A)

(v) Labour Cost Variance = (1)-(4) = (4,536 – 6,960) = ₹ 2,424 (A)

4. (a) A manufacturing company has two divisions — X and Y. Division X is mainly engaged in production of an electronic device and Division Y packs and labels the product and sells it in the market. Division X supplies 25,000 units of the product per month to Y for packaging and labelling. Division X incurs ₹ 16 as the variable cost for the product and fixed cost of ₹ 8,40,000 per year. Investment in fixed assets is ₹

9,60,000. The division plans to have 12% return on fixed assets as normal profits. Division Y incurs ₹ 10 per product as variable expenses for packaging and marketing.

(i) Find the Transfer Price per unit of the product that Division X can charge for transfer to Y.

(ii) What will be profit of Division Y if it can sell all the products in the market at ₹ 80 per unit?

(iii) If Division Y can sell only 15,000 units of the product per month and asks Division X to supply only 15,000 units, what will be the effect on the Transfer Price and the profits of the divisions?

(b) As a Cost and Management Accountant of MJK Ltd., prepare a Sales Overhead Budget for the months of January, February and March from the estimates given below:

Expenses per month:	**₹**
Advertisement	**2,500**
Salaries of the Sales Department	**5,000**
Expenses of the Sales Department	**1,500**

Counter Salesmen's Salaries and Dearness Allowance 6,000

Commission to counter salesmen @ 1% on their sales. Travelling salesmen's commission @ 10% on their sales and expenses @ 5% on their sales.

The sales during the period were estimated as under:

Month	**Counter Sales** ₹	**Travelling Salesmen Sales** ₹
January	**80,000**	**10,000**
February	**1,20,000**	**15,000**
March	**1,40,000**	**20,000**

(2+3+2)+5=12

Answer:

4. (a)

(i) **Computation of Transfer Price:**

To be charged by 'X' to 'y' ₹ OR ₹

Variable Cost per Unit	16.00	16.00
Fixed Cost per Unit (8,40,000/3,00,000)	2.80	2.80
Return per unit (9,60,000 x 12%)/3,00.000	0.384	4.608
	19.184	23.408

(ii) **Computation of Profit of Division 'Y'**

Transfer price	19.184	23.408
Variable Cost	10.000	10.000
	29.184	**33.408**
Contribution & Profit per unit	= (80-29.184)	(80-33.408)
	= 50.816	**= 46.592**
Monthly Profit	= 25,000×50.816	= 25,000×46.592
	= ₹12,70,400	= ₹ 11,64,800
	and	
Yearly profit	= 3,00,000 × 50.816	= 3,00,000 × 46.592
	= ₹ 1,52,44,800	= ₹ 1,39,77,600

(iii) **Transfer Price:**

Variable Cost per Unit	16.00	16.00
Fixed Cost per Unit (8,40,000/1,80,000)	4.67	4.67
Return per unit (9,60,000 x 12%)/1,80,000	0.64	7.68
	21.31	28.35
Variable Cost for Packaging & Marketing	10.00	10.00
	31.31	38.35
Contribution & Profit per unit	48.69	41.65
	(80.00 – 31.31)	(80.00 – 38.35)

Note: Suitable assumptions are expected from students in case of 2nd alternative where return/unit is ₹ 4.608 or ₹ 7.68 as the case may be. In case of suitable assumptions with correct working, full marks are given. Otherwise, stepwise marking is given with justification.

4(b)

Sale Overhead Budget

	January	February	March
	₹	₹	₹
Counter Sales	80,000	1,20,000	1,40,000
Travelling Salesmen's Sales	10,000	15,000	20,000
Total Sales	**90,000**	**1,35,000**	**1,60,000**
Sales Overheads			
Variable:			
Commission or Counter Sales @ 1%	800	1,200	1,400
Travelling Salesman's			
Commission @ 10% on Travelling Salesmen's Sales	1,000	1,500	2,000

Expenses on Travelling			
Salesmen's Sale @5%	500	750	1,000
Fixed:			
Advertisement	2,500	2,500	2,500
Salaries of the Sales Department	5,000	5,000	5,000
Expenses of the Sales Department	1,500	1,500	1,500
Counter Salesmen's Salaries			
and Dearness Allowance	6,000	6,000	6,000
Total Sales Overheads	17,300	18,450	19,400

5. Write short note on *any three* of the following: 4x3=12

(a) Break-even Analysis

(b) Absorption Costing Vs. Marginal Costing

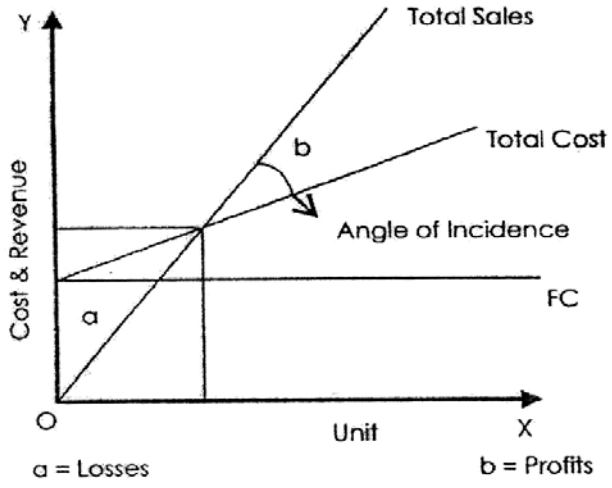
(c) Zero Based Budgeting

(d) Uniform Costing

Answer:

5. (a)

Break Even means the volume of production or sales where there is no profit or loss. In other words, Break Even Point is the volume of production or sales where total costs are equal to revenue. It helps in finding out the relationship of costs and revenues to output. In understanding the breakeven point, cost, volume and profit are always used. The break even analysis is used to answer many questions of the management in day to day business. The formal break even chart is as follows:



When no. of units are expressed on X-axis and costs and revenues are expressed on Y-axis, three lines are drawn i.e., fixed cost line, total cost line and total sales line. In the above graph we find there is an intersection point of the total sales line and total cost line and from that intersection point if a perpendicular is drawn to X-axis, we find break even units. Similarly, from the same intersection point a parallel line is drawn to X-axis so that it cuts Y-axis, where we find Break Even point in terms of value.

5. (b)

Differences between Absorption costing and Marginal costing

Absorption Costing	Marginal Costing
Both fixed and variable costs are considered for product costing and inventory valuation.	Only variable costs are considered for product costing and inventory valuation.
Fixed costs are charged to the cost of production. Each product bears a reasonable share of fixed cost and thus the profitability of a product is influenced by the apportionment of fixed costs.	Fixed costs are regarded as period costs. The profitability of different products is judged by their P/V ratio.
Cost data are presented in conventional pattern. Net Profit of each product is determined after 'subtracting fixed cost along with their variable cost.	Cost data are presented to highlight the total contribution of each product.
The difference in the magnitude of opening stock and closing stock affects the unit cost of production due to the impact of related fixed cost.	The difference in the magnitude of opening stock and closing stock does not affect the unit cost of production.
In case of absorption costing the cost per unit reduces, as the production increases as it is fixed cost which reduces, whereas, the variable cost remains the same per unit.	In case of marginal costing the cost per unit remains the same, irrespective of the production as it is valued at variable cost.

5. (c)

Zero based budgeting starts with the premise that the budget for next period is zero so long the demand for a function, process, project or activity is not justified for each rupee from the first rupee spent. The assumptions are that without such a justification no spending will be allowed. The burden of proof thus shifts to each manager to justify why the money should be spent at all and to indicate what would happen if the proposed activity is not carried out and no money is spent. It differs from the conventional system of budgeting mainly it starts from scratch or zero and not on the basis of trends or historical levels of expenditure. In the customary- budgeting system, the last year's figures are accepted as they are, or cut back or increases are granted. The first step in the process of zero base budgeting is to develop an operational plan or decision package. A decision package identifies and describes a particular activity. For this purpose, each package should give details of costs, returns, purpose, expected results, the alternatives available and a statement of the consequences if the activity is reduced or not performed at all.

Zero-base Budgeting is more suitably applicable to discretionary- cost areas. These costs may have no relation to volume or activity and generally arise as a result of management policies. Where standards are determinable, those costs associated with the inputs should be controlled through the use of standard costing.

5. (d)

Uniform Costing is not a separate method or type of Costing. It is a technique of Costing and can be applied to any industry. Uniform Costing may be defined as the application and use of the same costing principles and procedures by different organisations under the same

management or on a common understanding between members of an association. The main feature of uniform costing is that whatever be the method of costing used, it is applied uniformly in a number of concerns in the same industry, or even in different but similar industries. This enables cost and accounting data of the member undertakings to be compiled on a comparable basis so that useful and crucial decisions can be taken. The principles and methods adopted for the accumulation, analysis, apportionment and allocation of costs vary so widely from concern to concern that comparison of costs is rendered difficult and unrealistic. Uniform Costing attempts to establish uniform methods so that comparison of performances in the various undertakings can be made to the common advantage of all the constituent units.

The need for application of uniform Costing System exists in a business, irrespective of the circumstances and conditions prevailing therein. In concerns which are members of a trade association, the procedure for uniform Costing may be devised and controlled by the association or by any other central body specially formed for the purpose.

Part-B

(Financial Management)

Section-III

6. Answer the following questions:

(a) Choose the correct answer from the given four alternatives. 1x6=6

(i) ROI (Return on Investment) can be decomposed into the following ratios:

(A) Overall Turnover Ratio and Current Ratio

(B) Net Profit Ratio and Fixed Assets Turnover

(C) Working Capital Turnover Ratio and Net Profit Ratio

(D) Net Profit Ratio and Overall Turnover Ratio

(ii) Which one of the following activities is outside the purview of dividend decision in financial management?

(A) Identification of the profit after taxes

(B) Measurement of the cost of funds

(C) Deciding on the pay-out ratio

(D) Considering issue of bonus shares to equity shareholders

(iii) Which of the following does not help to increase Current Ratio?

(A) Issue of Debentures to buy Stock

(B) Issue of Debentures to pay Creditors

(C) Sale of Investment to pay Creditors

(D) Avail Bank Overdraft to buy Machine

(iv) Which of the following statements is correct?

(A) A higher Receivable Turnover is not desirable.

(B) Interest Coverage Ratio depends upon Tax Rate.

(C) Increase in Net Profit Ratio means increase in Sales.

(D) Lower Debt-Equity Ratio means lower Financial Risk.

(v) "Shareholders' wealth" in a firm is reflected by:

(A) the number of people employed in the firm.

(B) the book value of the firm's assets less the book value of its liabilities.

(C) the amount of salary paid to its employees.

(D) the market price per share of the firm.

(vi) The excess of Current Assets over Current Liabilities is called:

(A) Net Current Assets

(B) Net Working Capital

(C) Working Capital

(D) All of the above

(b) Match the statement in Column I with the most appropriate statement in Column II. 1x4=4

Column I		Column II	
1.	Dividend policy has no effect on its value of assets	(A)	Myron Gordon
2.	Value of share is worth the present value of its future dividend rather than its earnings	(B)	Graham & Dodd
3.	Dividend policy has an impact on share valuations	(C)	John Burr Williams
4.	Market Price of share will increase when company declares dividend rather than when it does not	(D)	Modigliani & Miller

(c) State whether the following statements are *True or False:* 1x4=4

(i) Treasury Bills are short term instruments issued by the Reserve Bank of India to address short term liquidity shortfalls.

(ii) While calculating cost of redeemable debt, it is necessary to consider the repayment of the principal, but the interest can be ignored.

(iii) A Depository Receipt in the US market is called American Depository Receipt (ADR).

(iv) Net Present Value method cannot serve as the best decision criteria for selection of projects when they are mutually exclusive.

Answer:

6. (a)

(i) — (D)

(ii) — (B)

(iii) — (D)

(iv) — (D)

(v) — (D)

(vi) — (D)

6. (b)

	Column 'A'		Column 'B'
1.	Dividend policy has no effect on its value of assets	(D)	Modigliani & Miller
2.	Value of share is worth the present value of its future Dividend rather than its earnings.	(C)	John Burr Williams
3.	Dividend policy has an impact on share valuations	(A)	Myron Gordon
4.	Market Price of share will increase when company declares dividend rather than when it does not	(B)	Graham & Dodd

6. (c)

(i) True

(ii) False

(iii) True

(iv) False

Section IV

Answer *any three* questions from question no. 7, 8, 9 and 10.
Each question carries 12 Marks.

7. (a) From the following information prepare a statement of Proprietors' Funds:

(i) Current Ratio = 2.5:1

(ii) Fixed Assets/Proprietors Funds = 0.75

(iii) Liquid Ratio = 1.5 : 1

(iv) Bank Overdraft = ₹ 10,000

(v) Reserves and Surplus = ₹ 80,000

(vi) Working Capital = ₹ 1,20,000

(b) Prepare a schedule of Changes in Working Capital and a Fund Flow Statement from the following information relating to XYZ Co. Ltd.

(Amount in ₹)

Liabilities	31.03.2016	31.03.2017	Assets	31.03.2016	31.03.2017
Equity Share Capital	2,00,000	3,00,000	Land	2,00,000	2,00,000
Share Premium	—	10,000	Plant at cost	2,08,000	2,00,000
General Reserve	1,00,000	1,20,000	Furniture at cost	14,000	18,000
Profit and Loss Account	20,000	34,000	Investments	1,20,000	1,60,000
6% Debentures	1,40,000	1,00,000	Debtors	60,000	1,40,000

Provision for Depreciation on Furniture	**10,000**	**12,000**	**Stock**	**1,20,000**	**1,30,000**
Provision for Depreciation on Plant	**1,00,000**	**1,12,000**	**Cash**	**60,000**	**90,000**
Provision for Taxation	**40,000**	**60,000**			
Sundry Creditors	**1,72,000**	**1,90,000**			
	7,82,000	**9,38,000**		**7,82,000**	**9,38,000**

A plant purchased for ₹ 8,000 (Depreciation 4,000) was sold on cash for ₹ 1,600 in October 2016. In July 2016, a piece of furniture was purchased for ₹ 4,000 and a dividend of 22.5% was paid to Equity Shareholders.

4+8=12

Answer:

7. (a)

If Working Capital = CA – CL = 1,20,000 and CA = 2.5 CL, then 2.5 CL – CL = 1,20,000

Therefore CL = 80,000 and CA = 2,00,000

Liquid Ratio = Quick Assets/CL = 1.5

Therefore Quick Assets = CL × 1.5 = 1,20,000

Since Quick Assets = CA – Stock, then Stock = CA – QA = 80,000

If Proprietors Funds are P then Fixed Assets = 0.75P

Proprietors Funds + CL = FA + CA

Or P + 80,000 = 0.75P + 2,00,000

Or 0.25 P = 1,20,000, or P = 4,80,000,

FA = 480000+80000-200000 = 3,60,000

Since Proprietory Funds are = Sh. Capital - Reserves, therefore Sh. Capital = 4,00,000

Statement of Proprietors Fund

Proprietors Fund	₹	₹
Share Capital	4,00,000	
Reserves and Surplus	80,000	4,80,000
Investment of Funds		
Fixed Assets	3.60,000	
Stock	80,000	
Other Current Assets	1,20,000	
Less Current Liabilities	80,000	4,80,000

7. (b)

Increase in working Capital ₹ 82,000

Fund Flow Statement Total ₹ 2,11,000

Funds from Operations ₹ 99,400

Schedule of Changes in Working Capital:

Current Asset	31.03.2016(₹)	31.03.2017(₹)
Debtors	60000	140000
Stock	120000	130000
Cash	60000	90000
Total CA	**240000**	**360000**
Current liabilities		
Provision for Tax	40000	60000
S. Creditor	172000	190000
Total CL	212000	250000
Working Capital (CA-CL)	28000	110000
Increase in Working Capital		₹ 82000

Fund Flow Statement

Sources	₹	Application	₹
Fund from operations	99400	Investment purchased	40000
Sale proceed of plant	1600	Increase in Working capital	82000
Issue of Equity Share capital with premium	110000	Dividend paid	45000
		Furniture purchase	4000
		Redemption of Debentures	40000
	211000		211000

Working Notes:

Calculation of depreciation during the year

Provision for depreciation on Plant

	₹
Opening Balance	100000
Less: Dep. On plant sold	4000
	96000
Dep. During the year	16000
Dep. Year end	112000

Total depreciation during the year

on plant	16000
on fumiture(12000-10000)	2000
Total	18000

Investment A/c

Particulars	₹	Particulars	₹
To bal. b/d	120000	By bal. c/f	160000
To bank -purchases(bal. fig)	40000		
	160000		160000

P&L A/c

Particulars	₹	Particulars	₹
To Dep.	18000	By balance	20000
To transfer to G/R	20000	By Fund from operations	**99400**
To loss on sale of plant	2400		
To dividend	45000		
To balance	34000		
	119400		119400

It is assumed that dividend is paid on original shares only.

8. (a) Jai & Karti are regular customers of MJK Ltd. Kolkata and have approached the sellers for extension of credit facility for enabling them to purchase goods from MJK Ltd. On the analysis of past performance and on the basis of information supplied, the following pattern of payment schedule emerges in regard to Jai & Karti:

Schedule	Pattern
At the end of 30 days	15% of the bill
60 days	34% of the bill
90 days	30% of the bill
100 days	20% of the bill
Non-recovery	1% of the bill

Jai & Karti wants to enter into a firm commitment for purchase of goods of ₹ 15,00,000 in 2016, deliveries to be made in equal quantities on the first day of each quarter in the calendar year. The price per unit of the commodity is ₹ 150 on which a profit of ₹ 5 per unit is expected to be made. It is anticipated by the MJK Ltd. that taking up of this contract would mean an extra recurring expenditure to ₹ 5,000 per annum. If the opportunity cost of funds in the hands of MJK Ltd. is 24% per annum, would you as a Management Accountant of the seller recommend the grant of credit to Jai & Karti? Working should form part of your answer.

(b) Company A reports the following information from its financial statements.

	₹
Sales	**8,00,000**
Less: Variable cost	**2,40,000**
Contribution	**5,60,000**
Fixed Cost	**4,00,000**
EBIT	**1,60,000**
Less: Interest	**20,000**
Profit before Tax	**1,40,000**

Find out:

(i) Using concept of financial leverage, by what percentage will the taxable income increase, if EBIT increases by 10%? Verify the results in terms of Rupees.

(ii) Using the concept of operating leverage, by what percentage will EBIT increase if there is 10% increase in sales? Verify the results in terms of Rupees.

8+(2+2)=12

Answer:

8. (a)

(a) Incremental profit = 15,00,000 × $\frac{5}{150}$ = ₹ 50,000

(b) Calculation of incremental finance cost 17,975* × 4 = ₹ 71,900

*Sales per quarter = $\frac{15,00,000}{4}$ = ₹ 3,75,000

Finance cost per quarter:

For 15% Of bill	3,75,000 x 15% x 24% x $\frac{30}{360}$	1,125
For 34% of bill	3,75,000 x 34% x 24% x $\frac{60}{360}$	5,100
For 30% of bill	3,75,000 x 30% x 24% x $\frac{90}{360}$	6,750
For 20% of bill	3,75,000 x 20% x 24% x $\frac{100}{360}$	5,000
Finance cost per quarter		17,975

(c) Extra recurring expenses = ₹ 5,000

(d) Bad debts = 15,00,000×1% = ₹ 15,000

Therefore, incremental profit = a-b-c-d = 50,000 – 71,900 – 5,000 – 15,000 = ₹ 41,900 (loss)

Comment : As there is incremental loss, it is advisable not to extend credit facility to Jai & Karti.

8. (b)

(i) Degree of Financial Leverage:

FL - EBIT/Profit before Tax = 1,60,000/1,40,000 = 1.1428

If EBIT increases by 10%, the taxable income will increase by 1.1428 x 10 = 11.428% and it may be verified as follows:

EBIT (after 10% increase)	₹ 1,76,000
Less interest	20,000
Profit before Tax	1,56,000

Increase in taxable income is ₹ 16,000 i.e 11.428% of ₹1,40,000

(ii) Degree of Operating beverage:

OL = Contribution/EBIT= 5,60,000/1,60,000 = 3.50

If sale increases by 10%, the EBIT will increase by 3.50 x 10 = 35% and it may be verified as follow:

Sales (after 10% increase)	₹8,80,000
Less variable expenses @ 30%	2,64,000
Contribution	6,16,000
Less Fixed cost	4,00,000
EB1T	2,16,000

Increase in EBIT is ₹ 56,000 i.e. 35% of ₹ 1,60,000

9. (a) Given below is the Statement of Assets and Liabilities of a company as at 31st December, 2016.

Liabilities	₹	Assets	₹
Equity share capital	**4,00,000**	**Fixed Assets**	**6,00,000**
40000 shares of ₹ 100 each			
Reserve and surplus	**2,60,000**	**Investments**	**1,00,000**
8% debentures	**1,70,000**	**Current assets**	**2,80,000**
Current Liabilities			
Short term loans	**1,00,000**		
Trade creditors	**50,000**		
	9,80,000		**9,80,000**

Calculate the company's weighed average cost of capital using balance sheet valuations. The following additional information are also available.

(i) 8% Debentures were issued at par.

(ii) All interests payments are up to date and equity dividend is currently 12%.

(iii) Short term loan carries interest at 18% p.a.

(iv) The shares and debentures of the company are quoted on the Calcutta Stock Exchange and current Market Prices are as follows:

Equity Shares at ₹ 14 each and 8% Debentures at ₹ 98 each.

(v) The rate of tax for the company may be taken at 50%.

(b) ZZZ Co. has four potential projects all with an initial cost of ₹ 15,00,000. The capital budget for the year will only allow the company to take up only one of the three projects. Given the discount rates and the future cash flows of each project, which project should they accept?

PROJECT	Annual Net Cash Flows per year for five years (₹)	Discount Rates
A	3,50,000	4%
B	4,00,000	8%
C	5,00,000	10%

7+5=12

Answer:

9. (a)

Calculation of the Cost of Equity: ₹

Equity Share 4,00,000

Reserves and Surplus 2,60,000

Equity (Shareholder's) Fund 6,60,000

Book Value Per Share = 6,60,000/40,000 = ₹ 16.50.

Equity Dividend Per Share = 12/100 ×10 = ₹ 1.20

Therefore, Cost Of Equity (%) = 1.20/16.50 × 100 = 7.273%

Computation of Weighted Average Cost of Capital:

Capital Structure or

Type of Capital	Amount (₹)	Before Tax	After Tax	Weighted Average Cost %
Equity funds	6,60,000	7.273%	7.273%	48,000
Debentures	1,70,000	8%	4%	6,800
Total	8,30,000		54800	

Weighted Average Cost of Capital = 54800/8,30,000 × 100 = 6.602%.

Question is wrong (40000 shares of ₹ 100 each).
Either, students can take 40,000 @ 10 each
OR 4,000 @ 100 each.

9. (b)

Project A

PV of Annuity of ₹ 3,50,000 for 5 years at 4% rate of discount —

3,50,000 × 4,452 = ₹ 15,58,200

NPV = ₹ 15,58, 200 – ₹ 15,00,000 = ₹ 58,200

Project B

PV of Annuity of ₹ 4,00,000 for 5 years at 8% rate of discount-

4,00,000 × 3.993 =15,97,200

NPV = ₹ 15,97,200 – ₹ 15,00,000 = ₹ 97,200

Project C

PV of Annuity of ₹ 5,00,000 for 5 years at 10% rate of discount-

5,00,000 × 3.791 - 18,95,500

NPV = ₹18,95,500 - ₹ 15,00,000 = ₹ 3,95,500

Accept Project C

10. Write short notes on *any three* of the following: 4x3=12

(a) Internal Rate of Return

(b) Sweat Equity Shares

(c) Venture Capital

(d) Combined Leverage

Answer:

10. (a) Internal Rate of return

IRR method follows discounted cash flow technique which takes into account the time value of money. The internal rate of return is the interest rate which equates the present value of expected future cash inflows with the initial capital outlay. In other words, it is the rate at which NPV is equal zero. Whenever a project report is prepared, IRR is to be worked out in order to ascertain the viability of the project. This is also an important guiding factor to financial institutions and investors.

Formula:

$C = [\{A_1/(1+r)\} + \{A_2/(1+r_2)\} + ... + \{A_n/(1+R_n)\}]$

Where C = Initial Capital outlay.

A1, A2, A3 etc. = Expected future cash inflows at the end of year 1,2, 3 and so on.

r = Rate of interest

n = Number of years of project

In the above equation – 'r' is to be solved in order to find out IRR.

Computation of IRR

The Internal rate of return is to be determined by trial and error method. The following steps can be used for its computation, (i) Compute the present value of the cash flows from an investment, by using arbitrary by selected interest rate, (ii) Then compare the present value so obtained with capital outlay, (iii) If the present value is higher than the cost, then the present value of inflows is to be determined by using higher rate, (iv) This procedure is to be continued until the present value of the inflows from the investment are approximately equal to its outflow, (v) The interest rate that bring about equality is the internal rate of return.

10. (b) Sweat Equity Shares:

As per Sec 2(88) of the Companies Act 2013 — Sweat equity shares means such equity shares as are issued by a company to its directors or employees at a discount or for consideration, oilier than cash, for providing their knowhow or making available rights in the nature of intellectual property rights or value additions, by whatever name called.

A company may issue sweat equity shares of a class of shares already issued, if the following conditions are fulfilled: (a) the issue is authorised by a special resolution passed by the company; (b) the resolution specifies the number of shares, the current market price, consideration, if any, and the class or classes of directors or employees to whom such equity shares are to be issued; (c) not less than one year has, at the date of such issue, elapsed since the date on which the company had commenced business; and (d) where the equity shares of the company are listed on a recognised stock exchange, the sweat equity share issued in accordance with the regulations made by the Securities and Exchange Board in this behalf and if they are not so listed, the sweat equity shares are issued in accordance with rule 8 of Companies (Share Capital and Debenture) Rules, 2014.

10. (c) Venture Capital:

Venture Capital is a form of equity financing especially designed for funding high risk and high reward projects. There is a common perception that Venture Capital is a means of financing high technology projects. However, Venture Capital is investment of long term financial made in: 1. Ventures promoted by technically or professionally qualified but unproven entrepreneurs, or 2. Ventures seeking to harness commercially unproven technology, or 3.High risk ventures. The term 'Venture Capital' represents financial investment in a highly risky project with the objective of earning a high rate of return.

Modes of Finance by Venture Capitalists

1. Equity Most of the venture capital funds provide financial support to entrepreneurs in the form of equity by financing 49% of the total equity. This is to ensure that the ownership and overall control remains with the entrepreneur. Since there is a great uncertainty about the generation of cash inflows in the initial years, equity financing is the safest mode of financing. A debt instrument on the other hand requires periodical servicing of dept.
2. Conditional Loan From a venture capitalist point of view, equity is an unsecured instrument hence a less preferable option than a secured debt instrument. A conditional loan usually involves either no interest at all or a coupon payment at nominal rate. In addition, a royalty at agreed rates payable to the lender on the sales turnover. As the units picks up in sales interest rate are increased and royalty amounts are decreased.
3 Convertible Loans the convertible loan "is subordinate' to all other loans which may be converted into equity if interest payments are not made within agreed time limit.

10. (d) Combined Leverage:

A combination of the operating and financial leverages is the total or Combination Leverage. The operating leverage causes a magnified effect of the change in sales level on the EBIT level and if the financial leverage combined simultaneously, then the change in EBIT will, in turn, have a magnified effect on the EPS. A firm will have wide fluctuations in the EPS for even a small change in the sales level. Thus effect of change in sales level on the EPS is known as combined leverage. Thus Degree of Combined Leverage may be calculated as follows:

DCL=Contribution/Earning after Interest.

INTERMEDIATE EXAMINATION

GROUP - II
(SYLLABUS 2016)

SUGGESTED ANSWERS TO QUESTIONS

JUNE - 2018

Paper-10 : COST & MANAGEMENT ACCOUNTING AND FINANCIAL MANAGEMENT

Time Allowed : 3 Hours **Full Marks : 100**

The figures in the margin on the right side indicate full marks.
All working must form part of your answer. Assumptions, if any, must be clearly indicated.

Please (i) Write answers to all parts of a question together.
(ii) Open a new page for answer to a new question.
(iii) Attempt the required number of questions only.

This Paper has been divided into two Parts A & B, each carrying 50 marks.
Further each part has been further divided into two sections each.

Part – A
(Cost and Management Accounting)

Section - I
Answer the following questions

1. (a) Choose the correct answer from the given four alternatives (You may write only the Roman numeral and alphabet chosen for your answer): 1×6=6

(i) Decision-marking concerns with:
(A) Past
(B) Future
(C) Past and Future both
(D) None of the above

(ii) A large Margin of Safety indicates
(A) Over-Capitalization
(B) The soundness of business
(C) Over Production
(D) None of the above

(iii) Revision of budgets is
(A) Unnecessary
(B) Cannot determine
(C) Necessary
(D) Inadequate data

(iv) Which of the following operating measures would a manager would like to see decreasing over time?
(A) Merchandise Inventory Turn-over
(B) Total quality cost
(C) % of on-time deliveries
(D) Finished Goods Inventory Turn-over

(v) Which of the following departments is most likely responsible for a Price Variance in Direct Materials?
(A) Warehousing
(B) Receiving
(C) Purchasing
(D) Production

(vi) Another name for the 'Learning Curve' is
(A) Exponential Curve
(B) Growth Curve
(C) Production Curve
(D) Experience Curve

(b) Match the statement under Column I with the most appropriate statement under Column II: (You may opt to write only the numeral and the matched alphabet instead of copying contents into the answer books.): 1x4=4

Column I		Column II	
1	Distinctive feature of Learning curve	(A)	on the principle of exception.
2	Standard Costing works	(B)	is designed to fix responsibilities on executives, through the preparation of budgets.
3	Budgetary Control System	(C)	is that notional value at which goods and services are transferred between divisions in a decentralized organization.
4	Transfer Price	(D)	Persons engaged in repetitive task will improve his performance over time.

(c) State whether the following statements are True or False: (You may write only the Roman numeral and whether True or False without copying the Statements into the answer books.): 1x4=4

(i) Management Accounting is largely based on estimates and as such total accuracy is not ensured under Management Accountancy.
(ii) The main objective of Budgetary control is to co-ordinate the different departments.
(iii) Standard Costing are applicable in Banking Industry.
(iv) Learning Curve is a Cost Reduction technique.

Answer:

1. (a) (i) (B)
(ii) (B)
(iii) (C)
(iv) (B)
(v) (C)
(vi) (D)

(b) (1) (D)
(2) (A)
(3) (B)
(4) (C)

(c) (i) True
(ii) False
(iii) False
(iv) False

SUGGESTED_ANSWERS TO QUESTION_SYL2016_JUNE2018_PAPER-10

Section - II

Answer any three questions from Question No. 2, 3, 4 and 5.
Each Question carries 12 Marks.

2. (a) QUALITY PRODUCTS LTD., manufactures and markets a single product. The following data are available:

	₹/Unit
Materials	**16**
Conversion Costs (Variable)	**12**
Dealer's Margin (10% of Sales)	**4**
Selling Price	**40**
Fixed Cost: ₹ 5 Lakhs	
Present Sales : 90,000 units	
Capacity Utilization : 60%	

There is acute competition. Extra efforts are necessary to sell. Suggestions have been made for increasing sales:
(A) By reducing Selling Price by 5%
(B) By increasing dealer's margin by 25% over the existing rate.

Required:
(i) Which of these two suggestion you would recommend, if the company desires to maintain the present profit?
(ii) Give reasons. 4+2=6

(b) XYZ Co. purchases 40,000 glass cases per annum from an outside supplier at ₹ 5 each. The production manager feels that these should be manufactured and not purchased. A machine costing ₹ 1,00,000 (no salvage value) will be required to manufacture the item within the factory. The machine has an annual capacity of 60,000 units and life of 5 years. The costs required for manufacture of each glass case is as follows:
Direct Materials ₹ 2.00
Direct Labour ₹ 1.00
Variable overheads 100% of Labour Cost

Required:
(i) Should the company continue to purchase the glass cases from outside supplier or should it make them in the factory?
(ii) Should the company accept an order to supply 10000 glass cases to the market at a selling price of ₹ 4.50 per unit? 3x2=6

Answer:

2. (a) Present Variable Cost/unit:

	₹
Materials	16
Conversion Costs	12
Dealer's Margin	4
Total Variable Cost/unit	32

Contribution/unit = Selling Price /unit- Variable Cost /unit = ₹ 40 - ₹ 32 = ₹8
∴ Total Contribution = ₹ 8 x 90,000 units = ₹ 7,20,000

In both the suggestion, Fixed Cost remains unchanged.
∴ The Present Profit of ₹ 2,20,000 (₹ 7,20,000 - ₹ 5,00,000) can be maintained by maintaining the total contribution at the present level i.e., ₹ 7,20,000.

(A) Reducing Selling Price by 5%:

New Selling Price	₹ 40 - ₹ 2 or ₹ 38.
New Dealer's Margin	10% of ₹ 38 or ₹ 3.80
New Variable Cost	₹ 16+ ₹ 12 + ₹ 3.80 = ₹ 31.80.
New Contribution/unit	₹ 38 - ₹ 31.80 = ₹ 6.20.

Sales(in units) required to maintain present level of profit
= Total Contribution/(Contribution/unit) = ₹ 7,20,000/ ₹ 6.20 = 1,16,129 units.

(B) Increasing Dealer's Margin by 25%:
New Margin will be (₹ 4 +25% of ₹ 4) = ₹4 + ₹ 1 = ₹5.
New Variable Cost = ₹16 + ₹12 +₹ 5 = ₹ 33
Contribution = ₹ 40 - ₹ 33 = ₹ 7.
Sales in units = ₹ 7,20,000/ ₹ 7 or 1,02,857 units.

Recommendation:
The 2nd Proposal is recommended because the contribution/unit is higher and the Sales (in units) are lower. Lower sales effort and lesser finance would be required in implementing the 2nd Proposal. The company can earn higher profits by increasing its sales, as an alternative.

(b) (i) Total variable cost of manufacturing one glass case = ₹ 4.00
Additional Fixed cost of manufacture p.a.
Depreciation (1,00,000 x 1/5) = ₹ 20,000

Since the marginal cost of manufacturing the case is less than the supplier's price of ₹ 5, there shall be a saving of ₹ (₹ 5 - 4) or ₹ 1 per case if the Case is manufactured within the factory. Manufacturing will however result in an additional fixed cost of ₹ 20,000 p.a.

Total saving = 40,000 cases @ ₹ 1	= ₹ 40,000
Less additional fixed cost (depreciation)	= ₹ 20,000
Net Savings	= ₹ 20,000

Therefore it is advisable to manufacture the cases in the factory.

(ii) If the company accepts to sell additional 10,000 units at 4.50, then additional contribution is 10,000 × 0.50 = ₹ 5,000. This will add to total profit.

3. (a) The Standard Material cost to produce a tonne of prefabricated building material of AJANTA LTD. is:
300 kgs. of material X @ ₹ 10 per kg.
400 kgs. of material Y @ ₹ 5 per kg.
500 kgs. of material Z @ ₹ 6 per kg.

During December 2017, 100 tonnes of mixture prefabricated building material were produced from the usage of:
35 tonnes of material X at a cost of ₹ 9,000 per tonne
42 tonnes of material Y at a cost of ₹ 6,000 per tonne
53 tonnes of material Z at a cost of ₹ 7,000 per tonne

Required:
Calculate the following variances:
(i) Total material cost variance
(ii) Total and individual material price variances
(iii) Total and individual material usage variances **2x3=6**

SUGGESTED_ANSWERS TO QUESTION_SYL2016_JUNE2018_PAPER-10

(b) The following details are available for ABC LTD. A manufacturing company:

	Budgeted Expenses, units & hrs.	Actual Expenses, units & hrs.
Variable Overheads (₹)	**5,00,000**	**5,20,000**
Output in units	**50,000**	**40,000**
Working hours	**2,50,000**	**2,20,000**

You are Required to Calculate the following variances:
(i) Variable Overhead Expenditure Variance
(ii) Variable Overhead Efficiency Variance
(iii) Total Variable Overhead Variance **2x3=6**

Answer:

3. (a)

Material	Standard			Actual		
	Quantity kg	Rate ₹	Amount ₹	Quantity kg	Rate ₹	Amount ₹
X	30,000	10.00	3,00,000	35,000	9.00	3,15,000
Y	40,000	5.00	2,00,000	42,000	6.00	2,52,000
Z	50,000	6.00	3,00,000	53,000	7.00	3,71,000
Total	1,20,000		8,00,000	1,30,000		9,38,000

(a) Material Cost Variance:
Standard Cost for Actual Quantity - Actual Cost
= ₹ 8,00,000 - ₹ 9,38,000 = ₹ 1,38,000 (A)

(b) Material Price Variances. AQ (AP- SP)
X : 35,000 (9-10) = ₹ 35,000 (Favourable)
Y : 42,000 (6-5) = ₹ 42,000 (Adverse)
Z : 53,000 (7-6) = ₹ 53,000 (Adverse)
Total MPV = ₹ 60,000 (Adverse)

(c) Material Usage Variances SP (AQ - SQ)
X : 10 (35,000 - 30,000) = ₹ 50,000 (Adverse)
Y : 5 (42,000 - 40,000) = ₹ 10,000 (Adverse)
Z : 6 (53,000 - 50,000) = ₹ 18,000 (Adverse)
Total MUV = ₹ 78,000 (Adverse)

(b) Standard Variable Overhead per unit ₹ 5,00,000/50,000 = ₹ 10
Standard Variable Overhead per hour 5,00,000/2,50,000 = ₹ 2
Time allowed per unit of output = 2,50,000/50,000 = 5 hours

(a) Variable Overhead Expenditure Variance = AH × SR - AOVH
= (2,20,000 × 2) - 5,20,000
= ₹ 80,000 Adverse

(b) Variable Overhead Efficiency Variance = {standard time for actual production (2,00,000 hrs) × SR per hour (2)} - {Actual hrs (2,20,000) × SR per hour (2)} = ₹ 40,000 Adverse.

(c) Total Variable Overhead Variance = Actual output (40,000) × SR-per unit (10)- Actual Overhead (5,20,000) = 1,20,000 Adverse.

SUGGESTED_ANSWERS TO QUESTION_SYL2016_JUNE2018_PAPER-10

4. (a) PENTAX LTD., has prepared its Expense Budget for 20,000 units in its factory for a year as detailed below:

Particulars	₹/unit
Direct Material	**50**
Direct Labour	**20**
Variable Overhead	**15**
Direct Expenses	**6**
Selling Expenses (20% Fixed)	**15**
Factory Expenses (100% Fixed)	**7**
Administrative Expenses (100% Fixed)	**4**
Distribution Expenses (85% Variable)	**12**
Total (₹)	**129**

Required:

Prepare an Expenditure Budget for the Production of 15,000 units and 18,000 units. 6

(b) JANAK LTD. received an order to make and supply sixteen units of standard product which involves intricate labour operations. The first unit was made in 8 hours. It is understood that this type of operations is subject to 90% learning rate. The workers are getting a wage rate of ₹ 15 per hour.

Required:

What is the total time and labour cost required to execute the above order? 6

Answer:

4. (a)

Particulars	Situation-I	Situation-II	Situation-III
Production level	20,000	15,000	18,000
Direct Material @ ₹ 50 per unit	20,000x50 = 10,00,000	15,000x50 =7,50,000	18,000x50 =9,00,000
Direct Labour @ ₹ 20 per unit	20,000x20 =4,00,000	15,000x20 =3, 00,000	18,000x20 =3,60,000
Variable Overhead @ ₹ 15 per unit	20,000x15 =3,00,000	15,000x15 =2,25,000	18,000x15 =2,70,000
Direct Expenses @ ₹ 6 per unit	20,000x6 =1,20,000	15,000x6 =90,000	18,000x6 =1,08,000
Selling Expenses Fixed = {20,000x(20% of ₹15)} Variable =(80% of ₹l5)= ₹ 12 pu	60,000 20,000x12 =2,40,000	60,000 15,000x12 = 1,80,000	60,000 18,000x12 =2,16,000
Factory Expenses(100% Fixed)	20,000x7 =1,40,000	=1,40,000	=1,40,000
Administrative Expenses (100% Fixed)	20,000x4 =80,000	=80,000	=80,000
Distribution Expenses (15% of ₹12)(-Fixed) Distribution Expenses (85% of ₹12)(-Variable) = ₹ 10.20 per unit	20,000x(12x15%) =36,000 20,000x 10.20 =2,04,000	=36,000 15,000x10.20 =1,53,000	=36,000 18,000x10.20 =1,83,600
Total Expenses	25,80,000	20,14,000	23,53,600

(b) 90% Learning Curve results are as given below:

Production (units)	Cumulative Average Time (Hours)	Total time (Hours)
1	8	8
2	7.2	14.4
4	6.48	25.92
8	5.832	46.66
16	5.2488	83.98

Labour time required for first 16 units = 83.98 hrs.

Labour cost required for 16 units = 83.98 hours × ₹ 15/- hr = ₹ 1,259.70

SUGGESTED_ANSWERS TO QUESTION_SYL2016_JUNE2018_PAPER-10

5. Write short note on any three of the following: 4×3=12
(a) Concept of Management Accounting
(b) Performance Budgeting
(c) Transfer Pricing
(d) Difference between Standard Costing and Budgetary Control, (any four)

Answer:

5. (a) Concept of Management Accounting:
Management Accounting is a new approach to accounting. The term 'Management Accounting' is composed of two words-Management and Accounting. It refers to Accounting for the Management. Management Accounting is a modern tool to management. Management Accounting provides the techniques for interpretation of accounting data. Here, accounting should serve the needs of management. Management is concerned with decision-making. Therefore, the role of Management Accounting is to facilitate the process of decision-making by the management. Managers in all types of organizations need information about business activities to plan accurately for the future and make decisions for achieving the goals of the enterprise. Uncertainty is the characteristic of the decision-making process. Uncertainty cannot be eliminated altogether, but can be reduced. The function of Management Accounting is to reduce this uncertainty and help the management in the decision-making process. Management Accounting is that field of accounting, which deals with providing information including financial accounting information to managers for their use in planning, decision-making, performance evaluation, control management of costs and cost determination for financial reporting. Management Accounting contains reports prepared to fulfill the needs of managements.

(b) Performance Budgeting: is synonymous with Responsibility Accounting, which means that the responsibility of various levels of management is predetermined in terms of output or result keeping in view the authority is vested with them.

Performance budget is a budget that reflects the input of resources and the output of services for each unit of an organization. This type of budget is commonly used by the government to show the link between the funds provided to the public and the outcome of these services.

Performance budgeting is a method of budgeting that provides the purpose and objectives for which funds are needed, costs of programs and related activities proposed to accomplish those objectives and outputs to be produced or services to be rendered under each program. Performance budgeting follows the validation that a relaxation of input controls and an increased flexibility enhances managers' performance as long as results are measured and managers are held responsible for their results . The major aim of performance budgeting is to improve the efficiency of public expenditure, by linking the funding of public sector organizations to the results they deliver. It adopts organized performance information (indicators, evaluations, program costings) to make this link. There is a good impact of performance budgeting on organizations in terms of improved prioritization of expenditure, and in improved service effectiveness.

Performance budgeting is based on a classification of managerial level for the purpose of establishing a budget for each level. The individual in charge of that level should be made responsible and held accountable for its performance over a given period of time.

(c) Transfer Pricing:
A 'Transfer Price' is that notional value at which goods and services are transferred between divisions in a decentralized organization. Transfer Pricing has become

necessary in highly decentralized companies where number of divisions/departments are created as a part and parcel of the decentralized organization. Transfer Pricing is one of the tools in the hands of management for measuring the performance of divisions or departments.

Transfer Prices are normally set for intermediate products, which are goods and services that are supplied by the selling division to the buying division. In large organization, each division is treated as a 'profit center' as a part and parcel of decentralization. Their profitability is measured by fixation of 'transfer price' for inter-divisional transfers. The transfer Price can have a big impact on the division's performance and hence a lot of care is to be taken in the fixation of the same. The transfer Price should motivate the divisional managers to maximize the profitability of their divisions. It should allow 'Goal Congruence', which means that the objectives of divisional managers match with those of the organization.

(d) Difference between Standard Costing and Budgetary Control:

Standard Costing	Budgetary Control
i. Standards are based on technical assessments	Budgets are based on past actuals adjusted to future trends
ii. Standards are mainly for production expenses i.e., elements of cost	Budgets are compiled for sales, production, expenses, Profit, capital expenditure.
iii. Standard cost is projection of cost accounts.	Budgets are projects of financial accounts
iv. Standards are minimum targets which are to be attained	Budgets are the maximum limits of expenses above which expenditure should not be incurred.
v. Standards are pointers to further improvements.	Budgets are indices, adherence to which keeps a business out of problems.
vi. Variances are accounted for in the books.	Variance analysis is only a statistical data
vii. Standards are expressed per unit of production	Budgets are expressed in totals of amounts
viii. Detailed analysis is needed in case of variances, whether they are favourable or unfavourable.	No further analysis is required if costs are within the budget.

Part – B
(Financial Management)

Section - III

Answer the following questions:

6. (a) Choose the correct answer from the given four alternatives (You may write only the Roman numeral and alphabet chosen for your answer): 1×6=6

(i) Which of the following is a Profitability Ratio?
(A) Proprietary Ratio
(B) Debt-Equity Ratio
(C) Price-Earning Ratio
(D) Fixed Asset Ratio

(ii) Which of the following is not a source of fund?
(A) Issue of Capital

(B) Issue of Debenture
(C) Decrease in Working Capital
(D) Increase in Working Capital

(iii) β (Beta) of a security measures its
(A) Divisible Risk
(B) Financial Risk
(C) Market Risk
(D) None of the above

(iv) The following is not a Discounted Cash Flow Technique:
(A) NPV
(B) PI
(C) Accounting of Average Rate of Return
(D) IRR

(v) The 'Dividend-Payout Ratio' is equal to
(A) The Dividend yield plus the capital gains yield
(B) Dividends per share divided by Earning per Equity Share
(C) Dividends per share divided by par value per share
(D) Dividends per share divided by current price per share

(vi) If EBIT = ₹ 1,00,000, Fixed Assets = ₹ 2,00,000, Sales = ₹ 10,00,000 and Variable Cost = ₹ 7,00,000. Then, the Operating Leverage will be
(A) 2
(B) 3
(C) 6
(D) 4

(b) Match the statement under Column I with the most appropriate statement under Column II: 1x4=4

Column I		Column II	
1.	Dividend Models	(A)	Modigliani and Miller Hypothesis
2.	Theory of Capital Structure	(B)	Fund Based Financial service
3.	Factoring	(C)	Indicator of Short-term solvency of a company
4.	Liquid Ratio	(D)	Gorden Model

(c) State whether the following statements are True or False: (You may write only the Roman numeral and whether True or False without copying the statements into answer the books.) 1x4=4
(i) Debt Service Coverage Ratio indicates the liquidity of a firm in relation to its ability to meet projected daily expenditure from operations.
(ii) Bill Discounting is defined as the relationship between the seller of goods and a financial firm, called the Factor.
(iii) Finance is called the "Chemistry of money".
(iv) Capital Budgetary Forecasts Returns on proposed long-term investments and compares profitability of different Investments and their cost of capital.

Answer:

6. (a) (i) (C)
(ii) (D)
(iii) (C)
(iv) (C)
(v) (B)
(vi) (B)

(b) (1) (D)
(2) (A)
(3) (B)
(4) (C)

(c) (i) False
(ii) False
(iii) False
(iv) True

Section - IV

Answer any three questions from Question No. 7, 8, 9 and 10.
Each Question carries 12 Marks.

7. (a) The following is the summary of Financial Ratios and form of a TEXTILE COMPANY having a sale of ₹ 32 lakh.

Sales to net worth (times)	2.3
Current debt to net worth (%)	42
Total debt to net worth (%)	75
Current ratio (times)	2.9
Net sales to inventory (times)	4.7
Fixed assets to net worth (%)	53.2

Proforma Balance Sheet

Net worth	---	Fixed assets	---
Long-term debt	---	Cash	---
Current debt	---	Stock	---
		Sundry debtors	568889
	---		---

You are required to Complete the Proforma Balance Sheet. 6

(b) INDOGROWTH LTD provides the following data:
Comparative trial balance

	March 31, 2018	March 31, 2017	Increase (decrease)
Debit Balance	₹	₹	₹
Working capital	2,00,000	1,00,000	1,00,000
Investments	1,00,000	1,50,000	(50,000)
Building & Equipment	5,00,000	4,00,000	1,00,000
Land	40,000	50,000	(10,000)
	8,40,000	7,00,000	1,40,000
Credit Balance			
Accumulated depreciation	2,00,000	1,60,000	40,000
Bonds	1,00,000	50,000	50,000
Reserves	3,40,000	3,40,000	---
Equity shares	2,00,000	1,50,000	50,000
	8,40,000	7,00,000	1,40,000

Income statement for the period ending March 31, 2018

Particulars	Amount (₹)	Amount (₹)
Sales		10,00,000
Cost of goods sold		5,00,000
		5,00,000
Selling expenses	50,000	
Administrative expenses	50,000	1,00,000

Operating income		**4,00,000**
Other charges and credits:		
Gain on sale of building and equipment	**5,000**	
Loss on sale of investments	**(10,000)**	
Interest	**(6,000)**	
Taxes	**(1,89,000)**	**(2,00,000)**
Net income after taxes		**2,00,000**

Notes: (i) The depreciation charged for the year ended March's, 2018 was ₹ 60,000.
(ii) The book value of the building and equipment disposed of was ₹ 10,000.
(iii) Land was sold at no profit no loss basis.

Required:
Prepare a Funds Flow Statement for the period ending March 31, 2018. 6

Answer:

7. (a) Proforma Balance Sheet of the Textile Company as on .....

Liabilities	Amount (₹)	Assets	Amount (₹)
Net Worth	13,91,304	Fixed Assets	7,40,173
Long-Term debt	4,59,130	Cash	4,44,869
Current debt	5,84,348	Stock	6,80,851
		Sundry Debtors	5,68,889
	24,34,782		24,34,782

Working Notes:
1. Net worth = ₹ 32,00,000 ÷ 2.3 = ₹ 13,91,304
2. Current debt = (₹ 13,91,304/100) x 42 = ₹ 5,84,348
3. Total debt = (₹ 13,91,304/100) x 75 = ₹ 10,43,478
4. Long-term debt = ₹ 10,43,478 – ₹ 5,84,348 = ₹ 4,59,130
5. Fixed assets = (₹ 13,91,304/1,000) x 532 = ₹ 7,40,173
6. Current assets = ₹ 5,84,348 x 2.9 = ₹ 16,94,609
7. Inventory = ₹ 32,00,000 ÷ 4.7 = ₹ 6,80,851
8. Cash = ₹ 16,94,609 - (₹ 6,80,851 + ₹ 5,68,889) = ₹ 4,44,869

(b) Fund Flow Statement of INDO Growth Ltd. for the period ending March 31, 2018

Sources of Funds

Funds from business operations:	₹	₹
Net Income after taxes	2,00,000	
Add: Depreciation	60,000	
Interest	6,000	
Loss on sale of investments	10,000	
Less: Gain on sale of building and equipment	(5,000)	2,71,000
Issuance of long-term liabilities:		
Equity Shares	50,000	
Bonds	50,000	1,00,000
Sale of Non-current assets:		
Investments (₹ 50,000 – ₹ 10,000)	40,000	
Land (₹ 50,000 – ₹ 40,000)	10,000	
Building and equipment (₹ 10,000 + ₹ 5,000)	15,000	65,000
Total		4,36,000

Application of Funds

Purchase of non-current assets:	₹	₹
Building and equipment		1,30,000
Recurring payment to investors:		
Interest on bonds	6,000	
Dividend to equity shareholders	2,00,000	2,06,000
Net increase in working capital (sources – uses)		1,00,000
Total		4,36,000

Working Notes:

1. Accumulated Depreciation Account

Particulars	Amount (₹)	Particulars	Amount (₹)
To Building and equipment (Depreciation on sales of building and equipment)	20,000	By Balance b/d	1,60,000
To Balance c/d	2,00,000	By P&L A/c (depreciation of the year 2018)	60,000
	2,20,000		2,20,000

2. Building and equipment Account

Particulars	Amount (₹)	Particulars	Amount (₹)
To Balance b/d	4,00,000	By Cash	15,000
To P&L A/c	5,000	By Accumulated depreciation	20,000
To Cash (Purchase)	1,30,000	By Balance c/d	5,00,000
	5,35,000		5,35,000

3. Reserves Account

Particulars	Amount (₹)	Particulars	Amount (₹)
To Dividends Paid (Bal. Fig.)	2,00,000	By Balance c/d	3,40,000
To Balance c/d	3,40,000	By Profit of the year 2018	2,00,000
	5,40,000		5,40,000

8. (a) The management of CAMELLIA LTD. has called for a statement showing the working capital needed to finance a level of activity of 3,00,000 units of output for the year ended March 31, 2018. The cost structure for the company's product, for the above mentioned activity level, is detailed below:

	Cost per unit (₹)
Raw materials	**20**
Direct labour	**5**
Overheads	**15**
Total cost	**40**
Profit	**10**
Selling price	**50**

Past trends indicate that the raw materials are held in stock, on an average, for two months. Work-in-process (50 per cent complete) will approximate to ½ month's production. Finished goods remain in warehouse, on an average, for 1 month. Suppliers of materials extend 1 month's credit. Two months' credit is normally allowed to debtors. A minimum cash balance of ₹ 25,000 is expected to be maintained. The production pattern is assumed to be even during the year (12 months).

Required:

Prepare a statement of Working Capital determination. 7

(b) The following information is available for AVANTI CORPORATION:

Earning per share	**₹ 6**
Rate of Return on Investment	**20%**
Rate of return required by share holders	**16%**

Required:

What should be the approximate dividend pay-out ratio so as to keep the share price at ₹ 44 by using Walter Model? 5

Answer:

8. (a) Statement of Determine Net working Capital of Camellia Ltd.

(A) Current Assets	₹	₹
(i) Raw materials (25,000 units × 2 × ₹ 20)		10,00,000
(ii) Work in process		
Raw Materials (12,500 units × ₹ 10)	1,25,000	
Direct Labour (12,500 units × ₹ 2.5)	31,250	
Overhead (12,500 units × ₹ 7.5)	93,750	2,50,000
(iii) Finished Goods (25,000 units × ₹ 40)		10,00,000
(iv) Debtors (3,00,000 × ₹ 40 × 2)/12		20,00,000
(v) Minimum Cash Balance		25,000
Total		42,75,000
(B) Current Liabilities		
(i) Creditors for 1 month (3,00,000 × ₹ 20 × 1)/12		5,00,000
(C) Net Working Capital (NWC) (A-B)		37,75,000

Alternatively, in work-in-process [Item A(iii) above] Raw Materials may be valued at 12,500 units x Rs. 20 = Rs. 2,50,000. Debtors [item A(iv) above] may also be valued at [3,00,000 x Rs. 50 (selling price) x 2] / 12 = Rs. 25,00,000.

Calculation of Net Working Capital will change accordingly.

(b) Let, the dividend pay-out ratio be X and so the share price will be:

$$P = \frac{D}{K_e} + \frac{\frac{r(E-D)}{K_e}}{K_e}$$

Here D = 6x; E = ₹ 6; r = 0.20 and K_e = 0.16 and P = ₹ 44

$$\text{Hence } ₹\ 44 = \frac{6x}{0.16} + \frac{0.2(6-6x)}{0.16 \times 0.16}$$

Or ₹ 44 = 37.50x + 46.875 (1 – x)

Or, 9.375x = 2.875

X = 0.3066 i.e. 0.31

So, the required dividend payout ratio will be = 31%.

9. (a) The CMD Ltd. has the following specific cost of capital along with the indicated book and market value weights:

Type of Capital	Cost	Book value weights	Market value weights
Equity	**0.18**	**0.50**	**0.58**
Preference shares	**0.15**	**0.20**	**0.17**
Long-term debt	**0.07**	**0.30**	**0.25**
		1.00	**1.00**

Required:

(i) Calculate the weighted cost of capital, using book and market value weights.

(ii) Calculate the weighted average cost of capital, using marginal weights, if the company intends to raise the needed funds using 50 per cent long-term debt, 35

per cent preference shares and 15 per cent retained earnings.
Note: Ignore Taxation **6**

(b) ANURAG MILLS LTD. has number of machines that were used to make a product that the firm has phased out of its operations. An existing machine was originally purchased six years ago for ₹ 5,00,000 and is being depreciated by the straight line method; its remaining useful life is 4 years. No salvage value is expected at the end of the useful life. It can currently be sold for ₹1,50,000. The machine can also be modified to produce another product at a cost of ₹2,00,000. The modifications would not affect the useful life, or salvage value, and would be depreciated using the straight line method.

If the firm does not modify the existing machine, it will have to buy a new machine at a cost of ₹ 4,40,000, (no salvage value) and the new machine would be depreciated over 4 years. The engineers estimate that the cash operating costs with the new machine would be ₹ 25,000 per year less than with the existing machine. Cost of capital is 15 per cent and corporate tax rate is 35 per cent.

Advise the company whether the new machine should be bought, or the old equipment modified. Assume straight line method of depreciation for tax purposes and loss on sale of existing machine can be claimed as short-term capital loss in the current year itself.
[Given: PVIFA (15% 4 years) = 2.855] **6**

Answer:

9. (a) (i) K_0 based on book value (BV) weights and market value (MV) weights

Sources of Capital	Weights		Cost	Total Cost	
	BV	MV		(BV × K)	(MV × K)
Equity Funds	0.50	0.58	0.18	0.090	0.1044
Preference Shares	0.20	0.17	0.15	0.030	0.0255
Long-term debt	0.30	0.25	0.07	0.021	0.0175
				0.141	0.1474

K_0 based on BV weights – 14.1 per cent.
K_0 based on MV weights – 14.7 per cent.

(ii) K_0 using marginal weights

Sources of Capital	Weights (W)	Cost (K)	Total Cost (W × K)
Long-term Debt	0.50	0.07	0.0350
Preference Shares	0.35	0.15	0.0525
Retained Earnings	0.15	0.18	0.0270
			0.1145

K_0 = 11.45 per cent.

(b) Cash Outflows:

Particulars	₹
Price of new machine	4,40,000
Less: Sale proceeds of existing machine	1,50,000
Less: Tax savings on loss of the sale of existing machine [0.35 × (₹ 2,00,000, Book Value – ₹ 1,50,000, Sale Value)]	17,500
Less: Modifications avoided if the new machine is bought	2,00,000
Net Cash Outflows	72,500

Cash Inflows (annual savings):

Particulars	Amount Before Tax (₹)	Amount After Tax (₹)
Cost savings	25,000	16,250
Differential depreciation (1,10,000 – 1,00,000)	10,000	3,500
Total Cash advantage per year		19,750
(x) PV Factor		(x) 2.855
PF of future savings from buying new machine		56,386
Cash flow required		72,500
Negative PV favouring modifying machine		(16,114)

Recommendation: The old machine should be modified.

10. Write short note on any three of the following: 4×3=12

(a) Debtors Turnover Ratio
(b) Determinants of Working Capital
(c) Advantages of Ratio Analysis (any four)
(d) Differences between Fund Flow Statement and Cash Flow Statement

Answer:

10. (a) Debtors Turnover Ratio (DTR)

This ratio 'DTR' indicates the speed at which the debtors are converted into cash. It is also called as 'Receivables Turnover Ratio'.
DTR = Credit Sales in a year / Average Account Receivable
The term, average account receivable includes trade debtors and bills receivable.
Average accounts receivables are computed by taking the average receivables in the beginning and at the end of the accounting year.

The optimum ratio is dependent on the credit policy of the firm and credit period allowed to the customers. A lower ratio indicates poor collection from the debtors. The higher the ratio, better it is.

Sometimes, we have to calculate the average collection period of debtors. In such a case, the formula would be;
Average Collection Period = Days in a year / DTR
Or Average Collection Period = (Debtors × Days in a year) / Credit Sales in a year.
i.e., Debtors/Credit Sales per day.

Significance of DTR:
DTR or Debt Collection Period measures the quality of debtors since it indicates the speed with which money is collected from the debtor. A shorter collection period implies prompt payment by debtors. A longer collection period implies too liberal and inefficient credit collection performance. The credit policy should neither be too liberal nor too restrictive. The former will result in more blockage of funds and bad debts while the latter will cause lower sales which will reduce profits.

(b) Determinants of Working Capital:

The size or magnitude and amount of working capital will not be uniform for all organizations and will differ from one organization to another.

The following are some factors that would determine the size of Working Capital:

- Nature and size of the Business
- Production Policies of the concern
- Process of manufacturing
- Growth and expansion of business
- Fluctuations in the trade cycle

- Dividend Policy
- Operating Efficiency
- Other Factors like Market facilities, tax considerations, Locational Factors, Labour availability.etc,

(c) Advantages of Ratio Analysis:

Ratio Analysis is useful and very relevant in assessing the performance of a firm in respect of the following purposes:

- Ratio analysis is the process of determining and interpreting numerical relationships based mainly on the financial statements
- To measure the liquidity position, i.e., whether the firm will be able to meet its current obligations when they become due or not.
- To know the solvency position for assessing the long-term financial liability of the firm
- Operating efficiency or turnover of the firm
- To assess the profitability position of the firm, in respect of sales and the investments
- For Inter-firm and Intra-firm comparison, to assess the relative position of the firm vis-a-vis its competitors.
- For Trend Analysis, for ascertaining whether the financial position of a firm is improving or deteriorating over the years
- Commercial Bankers and Trade Creditors are most interested in ratios like Current Ratio, Acid Test Ratio, Turnover of Receivables, Inventory Turnover, Coverage of interest by level of earnings, etc..

(d) Differences between Funds Flow Statement and Cash Flow Statement.

The following are the main differences between a Fund Flow Statement and a Cash Flow Statement:

Fund Flow Statement (FFS)	Cash Flow Statement (CFS)
1. FFS reveals the change in Working Capital between two Balance Sheet dates	CFS reveals the changes in Cash Position between two Balance Sheet dates
2. FFS is based on accounting	CFS is based on cash basis of accounting
3. In the case of FFS, a schedule of changes in Working Capital is prepared	No such schedule of changes in Working Capital is prepared for a CFS
4. FFS is useful in planning Intermediate and Long term financing	CFS ,as a tool of financial analysis is more useful for Short-term analysis and Cash Planning

Suggested Answer_Syl16_Dec2018_Paper_10

INTERMEDIATE EXAMINATION

GROUP II

(SYLLABUS 2016)

SUGGESTED ANSWERS TO QUESTIONS

DECEMBER 2018

Paper- 10 : COST & MANAGEMENT ACCOUNTING AND FINANCIAL MANAGEMENT

Time Allowed : 3 Hours **Full Marks : 100**

The figures in the margin on the right side indicate full marks.

All workings must form part of your Answer.

Wherever necessary, candidates may make appropriate assumptions and clearly state them.

Please: (i) Write answers to all parts of a question together.

(ii) Open a new page for answer to a new question.

(iii) Attempt the required number of questions only.

Part – A

(COST & MANAGEMENT ACCOUNTING)

(50 Marks)

SECTION - I

Answer the following Question.

1. Answer all questions:

(a) Choose the correct answer from the given four alternatives (You may write only the Roman numeral and alphabet chosen for your answer): 1×6=6

(i) The well–known basic function of management is

(A) Motivating
(B) Leadership
(C) Decision–making
(D) Communicating

(ii) Contribution margin is equal to

(A) Sales–Fixed Cost–Profit
(B) Profit + Variable Cost
(C) Fixed Cost–Loss

(D) None of the above

(iii) In a system whereby all activities are revaluated each time a budget is formulated and starts with the assumption that requirement of funds does not exist is called

(A) Performance Budgeting
(B) Programme Budgeting
(C) Flexible Budgeting
(D) Zero–based Budgeting

(iv) The management's time is saved by reporting only the deviations from the predetermined standards is called

(A) Management by objectives
(B) Budgetary Control
(C) Standard Costing
(D) Management by Exception

(v) Marginal Costing is also known as

(A) Direct Costing
(B) Absorption Costing
(C) Variable Cost
(D) Variable Costing

(vi) Another name for 'Contribution' is

(A) Marginal Income
(B) Gross Profit
(C) Net Income
(D) None of the above

(b) Match the statement under Column I with the most appropriate statement under Column II (You may opt to write only the numeral and the matched alphabet instead of copying the contents into the answer book): 1×4= 4

Column I		Column II	
1	Learning Curve	(A)	Theodare P. Wright
2	Transfer Price	(B)	Cumulative Average Time
3	Experience Curve	(C)	Notional Value
4	Factors affecting the cost of Airlines	(D)	Boston Consulting Group

(c) State whether the following statements are True or False (You may write only the Roman numeral and whether True or False without Copying the Statement into the answer book): 1×4= 4

(i) Standard Costing may not be suitable for small concerns
(ii) Production Budget is prepared before Sales Budget
(iii) Budgets are always prepared for one year
(iv) At Break Even Point, the Margin of Safety is nil

Answer: 1 (a)

(i) (C)

(ii) (C)

(iii) (D)

(iv) (D)

(v) (D)

(vi) (A)

Answer: 1 (b)

Column I		Column II	
1	Learning Curve	(B)	Cumulative Average Time
2	Transfer Price	(C)	Notional Value
3	Experience Curve	(D)	Boston Consulting Group
4	Factors affecting the cost of Airlines	(A)	Theodare P. Wright

Answer: 1 (c)

(i) True

(ii) False

(iii) False

(iv) True

SECTION – II

Answer any three questions from Question No. 2,3,4 and 5,
Each question carries 12 marks.

2. (a) CADINI LTD., a factory engaged in manufacturing Plastic Buckets is working to 40% capacity and produces 10,000 Buckets per annum. The present cost break–up for one Bucket is:

Material – Rs.10
Labour– Rs.3 and
Over head – Rs.5 (out of which 60% is fixed)

The Selling Price is Rs.20 per Bucket

If it is decided to work the factory at 50% capacity, the Selling Price falls by 3%.

Calculate:

(i) The profit at 50% capacity.

(ii) Break Even Quantity in units. **4+2=6**

(b) XER Co. manufactures an electronic product and puts a price tag of Rs.190.00 as wholesale price. The company has a production and storage facility with a 100,000 unit monthly output capacity based on running an 8 hours shift each workday.
Estimated Costs are given below:

Monthly Fixed Costs	(Rs.)	Per Unit Costs	(Rs.)
Building Depreciation	2,50,000	Production Labour	45.00
Project Management	1,75,000	Supervisors Charges	5.00
Advertising Costs	3,00,000	Material Handling	8.00
Network Administration	75,000	Sales Commissions	12.00
Office Expenses	1,50,000	Materials	70.00
Equipment (Depreciation)	2,00,000	Electricity Costs	3.00

Required:

(i) Based on the information provided, what quantity must this firm produce in order to be at breakeven?

(ii) If the firm produces at the plant's capacity, what is the minimum price at which the firm can sell the product and still breakeven?

(iii) Suppose the firm seeks to target profit of Rs.30,00,00 from this product based on the input costs and wholesale price noted in the problem. How many units would the firm need to produce to generate the required profit? 6

Answer: 2 (a)

Computation of profit and BEQ

Capacity Levels Production (units)		50% (10,000/40%) × 50%=12,500 units
Sales	Per Unit (Rs.) (Rs.20–3% of 20) Rs.19.40	Total (Rs.) Rs.2,42,500
Less: Variable Costs:		
Materials	10.00	1,25,000
Wages	3.00	37,500
Variable Overhead (40% of Rs.5)	2.00	25,000
Contribution: (19.40–15.00)	4.40 (2,42,500–1,87,500)=	55,000
Less: Fixed Overhead (60% × Rs.5 × 10,000)		30,000
(i) Profit		25,000
(ii) Break Even Quantity = Fixed Cost ÷ Contribution /Unit = Rs.30,000/Rs.4.40 = 6,818.18 or 6,819 units		

Answer: 2 (b)

Total Fixed Cost = Bldg + Project Mgt + Advertising + r Network + Office Exp + Equipment (Dep)

= 2,50,000 + 1,75,000 + 3,00,000 + 75,000 + 1,50,000 + 2,00,000 = Rs. 11,50,000

Variable Cost per unit = Prod Labour + Supv charg + Material handling + Sales Comm + Materials + Electricity = 45.00 + 5.00 + 8.00 +12.00 +70.00 + 3.00 = 143.00

(i) Break Even Point = 11,50,000/(190–143) = 24,469 units

(ii) P = TFC/Q + VC

P = 11,50,000/100,000 + 143 = Rs. 154.50

(iii) Profit = (P) (Q) – TFC – (VC) (Q)

3,000,000 = (190) (Q) – 1,150,000 – (143.00) (Q)

3,000,000 = (190 – 143.00) (Q) – 1,150,000

3,000,000 + 1,150,000 = (190.00 – 143.00) (Q)

4,150,000/ (190.00 – 143.00) = Q = 88,298 units

3. (a) The following information is available from the records of REEDYAAH LTD., a manufacturing company using Standard Costing System for the week ended April 30, 2018:

	Standard		Actual	
	Qty.	Unit Price	Qty.	Unit Price

Suggested Answer_Syl16_Dec2018_Paper_10

Material 'A'	**60%**	**Rs.20**	**44 kg**	**Rs.25**
Material 'B'	**40%**	**Rs.10**	**66 kg**	**Rs.5**
Processing Loss	**10%**	**--**	**--**	**--**
			Actual output 90 kg	

Required:

Calculate from the information stated Supra:

(i) Material Cost Variance

(ii) Material Price Variance

(iii) Material Usage Variance

(iv) Material Mix Variance

(v) Material Yield Variance **6**

(b) The following information has been obtained from the records of PURNOMINA LTD., a manufacturing organization using the Standard Costing System for the month ended March 31, 2018:

	Budget	**Actual**
Production (Units)	**4000**	**3800**
Working days	**20**	**21**
Fixed overhead (Rs.)	**40000**	**39000**

Your are required to calculate the following overhead cost variances:

(i) Fixed overhead expenditure variance;

(ii) Fixed overhead volume variance;

(iii) Fixed overhead efficiency variance;

(iv) Fixed overhead calendar variance;

(v) Fixed overhead cost variance; **6**

Answer: 3 (a)

Basic Calculations:

	Material 'A'	**Material 'B'**	**Total**
Standard Quantity for Actual Output (SQ)	$\frac{60}{90}\times 90 = 60$	$\frac{40}{90}\times 90 = 40$	100
Actual Quantity (AQ)	=44	=66	110
Revised Quantity (RQ)	$\frac{60}{100}\times 110 = 66$	$\frac{40}{100}\times 110 = 44$	110

Suggested Answer_Syl16_Dec2018_Paper_10

Statement showing the Basic Calculations for the Computation of Material Cost Variances

Type of Material	SQ for AQ	SP	SQ × SP (1)	AQ	AP	AQ × AP (2)	AQ × SP (3)	RQ	RQ × SP (4)
Material									
A	60	20	1,200	44	25	1,100	880	66	1,320
B	40	10	400	66	5	330	660	44	440
Input	100			110					
Less: Loss	10			20					
	90		1,600	90		1,430	1,540		1,760

Material Cost Variance (1–2) = (SQ × SP)–(AQ × AP) = **Rs.**1600–**Rs.**1430 = **Rs.**170 (F)

Material Price Variance (3–2) = (AQ × SP) – (AQ × AP)

Material A = **Rs.**880–**Rs.**1100 = **Rs.**220 (A)

Material B = **Rs.**660–**Rs.**330 = **Rs.**330 (F)

MPV = **Rs.**110 (F)

Material Usage Variance (1–3) = (SQ × SP) – (AQ × SP)

Material A= **Rs.**1200–**Rs.**880 = **Rs.**320 (F)

Material B = **Rs.**400–**Rs.**660 = **Rs.**260 (A)

MUV = **Rs.**60 (F)

Material Mix Variance (4–3) = (RSQ × SP) – (AQ × SP)

Material A= **Rs.**1320 – **Rs.**880 = **Rs.**440 (F)

Material B = **Rs.**440 – **Rs.**660 = **Rs.**220 (A)

MMV = **Rs.**220 (F)

Material Yield Variance = (Actual Yield – Standard Yield) × Average Standard Price

$$= \left(90\,\text{kg} - \frac{90\text{kg}}{100\text{kg}} \times 110\,\text{kg}\right) \times \frac{1,600}{90} = \textbf{Rs.}160\ (A)$$

Alternatively MYV (1–4) = (SQ × SP) – (RSQ × SP) = **Rs.**1600 – **Rs.**1760 = **Rs.**160 (A)

Verification: 1. MCV = MPV + MUV = **Rs.**110 (F) + **Rs.**60 (F)=**Rs.**170 (F)

2. MUV = MMV + MYV = **Rs.**220 (F) + **Rs.**160(A) = 60 (F)

Answer: 3 (b)

Particulars	Rs.
(1) Actual fixed overhead incurred	39,000
(2) Budgeted fixed overhead for the period	40,000
(3) Fixed overhead for days available at standard rate during the period (40000/20) × 21	42,000
(4) Standard fixed overhead for actual production {(40000/4000) × 3800}	38,000

Variances:

Particulars	Rs.
Fixed overhead expenditure variance: (1–2) (39000–40000)	1,000 (Fav)
Fixed overhead volume variance: (2–4) (40000–38000)	2,000 (Adv)
Fixed overhead efficiency variance: (3–4) (42000–38000)	4,000 (Adv)
Fixed overhead calendar variance: (2–3) (40000–42000)	2,000 (Fdv)
Fixed overhead cost variance: (1–2) (39000–38000)	1,000 (Adv)

4. (a) Your are given the following particulars concerning MINTEX LTD, a manufacturing organisation:

	At 80% capacity (Rs.)
Variable Overheads:	
Indirect Labour	**12,000**
Stores (including Spares)	**4,000**
Semi–Variable Overheads:	
Power (30% Fixed)	**20,000**
Repairs & Maintenance (60% Fixed)	**2,000**
Fixed Overheads:	
Depreciation	**11,000**
Insurance	**3,000**
Salaries	**10,000**
Total Overheads	**62,000**
Estimated Directed Labour Hours	**124,000 Hours**

You are required to:

(i) Draw a Flexible Budget for Overhead expenses on the basis of the above data at 80% and 90% Plant Capacity.

(ii) Determine the Overhead Rates at 80% and 90% Plant Capacity. 4+2=6

(b) RADIANCE ENGINES LTD. manufacture engines mounting for Akash airlines. They have been asked to bid on a prospective contract for 30 engines mounting for the Jet aircraft. They have just completed and initial run of 10 of these mounting at the following costs:

Particulars	**Amount in Rs.**
Direct Materials	**7,000**
Direct labour (2000 hours @ Rs.4)	**8,000**
Variable overhead (Rs.0.50 per labour hour)	**1,000**
Fixed overhead (Rs.1 per labour hour)	**2,000**
	18,000

An 80% learning curve is thought to be pertinent in this case. Marketing Director believes that the quotation is unlikely to be accepted if it exceeds Rs.38,000 and as the company are short of work, he believes the contract to be vital.

Your are required to comment whether it is worth accepting at Rs.38,000 6

Answer: 4 (a)

Flexible Budget for overhead Rates at 80% and 90% plant Capacity.

Particulars	At 80% Plant Capacity (Rs.)	At 90% Plant Capacity (Rs.)

Suggested Answer_Syl16_Dec2018_Paper_10

A) Variable Overheads:		
Indirect Labour:	12,000	13,500
Stores including Spares	4,000	4,500
Sub – total (A):	16,000	18,000
B) Semi–Variable Overhead:		
(i) Power		
(a) Fixed	6,000	6,000
(b) Variable	14,000	15,750
(ii) Repair & Maintenance		
(a) Fixed	1,200	1,200
(b) Variable	800	900
Sub – total (B)	22,000	23,850
Portion (C) Fixed Overheads:		
Depreciation	11,000	11,000
Insurance	3,000	3,000
Salaries	10,000	10,000
Sub–total	24,000	24,000
D) Total Overheads (A) + (B) + (C)	62,000	65,850
E) Estimated direct Labour Hours	1,24,000	1,39,500
F) Direct Labour Hour Rate (D) / (E)	**Rs.**0.50	**Rs.**0.47

Working Notes:

(i) Power (Variable Portion)

At 90% Capacity, = **Rs.**14,000 × (90%/80%) = **Rs.**15,750

(ii) Repair & Maintenance (Variable Portion)

At 90% Capacity = **Rs.**800 × (90%/80%)=**Rs.**900

(iii) Direct Labour Hours:

At 90% Capacity, = **Rs.**1,24,000 × (90%/80%) = **Rs.**1,39,500

Answer: 4 (b)

Labour hours required:

	Cumulative quantity manufactured	Cumulative hours	Cumulative average hours per unit (Engine)
(i)	10	2000	2000 ÷10 =200
(ii)	20	3200	200 × 0.80 = 160
(iii)	40	5120	160 × 0.80 = 128

Additional hour for 30 = Hours Required for 40 engines **minus** hours, required original 10 units (engines) for which initial run has already been completed.

= 5120 – 2000 = 3120 hours

Incremental costs for 30 engines will be:

Particulars	Rs.
Direct Material	21,000
Direct Labour (3120 hours × 4)	12,480
Variable overhead (3120 × 0.50)	1,560
Fixed O. H.	-----

	Rs.**35,040**

Comments:
The contract is worth accepting, if more profitable work is not being turned away, as it yields a contribution of only Rs.2,960 (i.e. Rs.38000 – 35040)

5. Write short notes on any three out of the following: 4×3=12

(i) Application of Marginal Costing in Decision Making

(ii) Advantages of Standard Costing

(iii) Distinctive Features of Learning Curve Theory

(iv) Difference between Fixed and Flexible Budget (Any four points)

Answer: 5

(i) Application of Marginal Costing in Decision Making:

Some of the important areas where Marginal Costing techniques are generally applied are as given below:

(i) Selection of a Profitable Sales Mix or Profitable Product Mix

(ii) Problem of Limiting Factors

(iii) Make or Buy Decisions

(iv) Diversification of Production

(v) Fixation of Selling Price

(vi) Export Market Vs. Home Market

(vii) Alternative Methods of Manufacturing

(viii) Operate or Shut Down Decision

(ix) Maintaining a Desired Level of Profit

(x) Alternative Courses of Action

(xi) Profit Planning

(ii) Advantages of Standard Costing: The advantages of Standard Costing are:

(i) Established yard–sticks against which the efficiency of actual performances is measured

(ii) The Standards provide incentive and motivation to work with greater effort and vigilance for achieving the standard

(iii) At the very stage of setting the standards, simplification and standardisation of products, methods and operations are effected and waste of time and materials is eliminated

(iv) Costing Procedures are simplified. There is a reduction in Paper work

(v) Standard Costing is an exercise in planning

(vi) Standard Costing System facilitates delegation of authority and fixation of responsibility for each department or individual

(vii) Enables Variance Analysis and the Reporting is based on the principles of Management by Exception

(viii) Optimizes the use of plant capacities, current assets and working capital

(ix) Standard Costing facilitates the integration of accounts

(iii) Distinctive Features of Learning Curve Theory

(i) Learning Curve is not a Cost Reduction technique. It is a naturally occurring human phenomenon

(ii) It is a human characteristic that a person engaged in repetitive task will improve his performance over time

(iii) People learn from errors

(iv) When the workers produce more and more units, they come to know the problems and their reasons. Now they are able to avoid the problems

(v) The workers are able to find the new methods of doing the job, they are able to complete the task in lesser time

(vi) Better equipments and tools are developed

(vii) Better Product Designs lead to increased efficiency

(iv) Different between Fixed and Flexible Budget

	Fixed Budget	**Flexible Budget**
(i)	It does not change with actual volume of activity achieved. Thus it is known as rigid or inflexible budget	It can be recasted on the basis of activity level to be achieved. Thus it is not rigid
(ii)	It operates on one level of activity and under one set of conditions	It consists of various budgets for different levels of activity
(iii)	Here all costs like–Fixed, Variable and Semi–variable are related to only one level of activity	Here analysis of variance provides useful Information as each cost is analysed according to its behaviour
(iv)	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 facilities the ascertainment of cost, fixation of selling price and tendering of quotations
(v)	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

Suggested Answer_Syl16_Dec2018_Paper_10

Part – B

(FINANCIAL MANAGEMENT)

(50 Marks)

SECTION – III

Answer the following Question.

6. (a) Choose the correct answer from the given four alternatives (You may write only the Roman numeral and the alphabet chosen for your answer): 1×6= 6

(i) Which of the following does not help to increase Current Ratio?

- **(A) Issue of Debentures to buy Stock**
- **(B) Issue of Debentures to pay Creditors**
- **(C) Sale of Investment to pay Creditors**
- **(D) Avail Bank Overdraft to buy Machine**

(ii) Which of the following is not considered while preparing cash budget?

- **(A) Accrual Principal**
- **(B) Difference in Capital and Revenue items**
- **(C) Conservation Principle**
- **(D) All of the above**

(iii) Cost of capital may be defined as:

- **(A) Weighted Average cost of all debts**
- **(B) Rate of Return expected by Equity Shareholders**
- **(C) Average IRR of the Projects of the firm**
- **(D) Minimum Rate of Return that the firm should earn**

(iv) At Indifference level of EBIT, different capitals have:

- **(A) same EBIT**
- **(B) same EPS**
- **(C) same PAT**
- **(D) same PBT**

(v) ABC Analysis is used in

- **(A) Inventory Management**
- **(B) Receivables Management**
- **(C) Accounting Policies**
- **(D) Corporate Governance**

(vi) Which of the following is not incorporated in Capital Building?

(A) Tax–Effect

(B) Time Value of Money

(C) Required Rate of Return

(D) Rate of Cash Discount

(b) Match the statement under Column I with the most appropriate statement in Column II (You may opt to write only the numeral and matched alphabet instead of copying contents into the answer book): 1×4=4

Column I		Column II	
(1)	**Gordon's Model**	**(A)**	**Activity Ratio**
(2)	**Discounted Cash Flow**	**(B)**	**Inventory Management**
(3)	**Carrying Cost**	**(C)**	**Internal Rate of Return**
(4)	**Working Capital Turnover Ratio**	**(D)**	**Relevance of Dividends on share value**

(c) State whether the following statements are True or False (You may write only the Roman numeral and whether True or False without copying the statements into the answer book) 1×4=4

(i) In mutually exclusive capital budgeting decisions, the firm can accept all feasible proposals.

(ii) Weighted Average Cost of Capital in always calculated with reference to book value of different sources of funds.

(iii) Debt–Equity Ratio is a measure of long–term solvency of a firm.

(iv) Capital Rationing as a situation when the Government has imposed a ceiling on investment by a firm.

Answer: 6 (a)

(i) (D)

(ii) (D)

(iii) (D)

(iv) (B)

(v) (A)

(vi) (D)

Answer: 6 (b)

Column I		Column II	
(1)	Gordon's Model	(D)	Relevance of Dividends on share value
(2)	Discounted Cash Flow	(C)	Internal Rate of Return
(3)	Carrying Cost	(B)	Inventory Management
(4)	Working Capital Turnover Ratio	(A)	Activity Ratio

Answer: 6 (c)

(i) False

(ii) False

(iii) True

(iv) False

SECTION – IV
Answer any three questions from Question No. 7, 8,9 and 10,
Each question carries 12 marks.

7. (a) Complete the Balance Sheet in the table below for TANISH LTD. using the following financial data:

(i) Total Debt to Net Worth = 1:2

(ii) Total Assets Turnover = 2

(iii) Gross Profit on Sales = 30%

(iv) Average Collection Period (Assume 360 days in a year) = 40 days

(v) Inventory Turnover Ratio on Cost of Goods Sold and year–end inventory = 3

(vi) Acid Test Ratio = 0.75

Balance Sheet as on 31st March 2018			
Liabilities	**Rs.**	**Assets**	**Rs.**
Equity Share Capital	4,00,000	Planet & Machinery & Other Fixed Assets	-------
Reserves and Surplus	6,00,000		
Total Debt:		Current Assets:	
Current Liabilities	-------	Inventory	-------
		Debtors	-------
		Cash	-------
Total	-------	Total	-------

Assume that there is no Bank OD in this Balance Sheet format **6**

(b) VEDIKA LTD. gives you the following information for the year ended 31st March, 2018:

(i) Sales for the year totalled Rs.96,00,000. The company sells goods for cash only.

(ii) Cost of goods sold was 60% of sales. Closing inventory was higher than opening inventory by Rs.20,000.

(iii) Tax paid amounted to Rs.7,00,000. Other expenses totalled Rs.21,45,000. Outstanding expenses on 31st March, 2017 and 31st March, 2018, totalled Rs.82,000 and Rs.91,000 respectively.

(iv) New machinery and furniture costing Rs.10,50,000 in all were purchased. One equipment was sold for Rs.20,000.

(v) A right issue was made of 50,000 shares of Rs.10 each at a premium of Rs.3 per share. The entire money was received with application.

(vi) Dividends totalling Rs.4,00,000 were distributed among the shareholders.

(vii) Cash in hand and at Bank as at 31st March, 2017 and 31st March, 2018 totalled Rs.2,10,000 and Rs.4,14,000 respectively.

You are required to prepare cash flow statement as per CAS–3 for the year ended 31st March, 2018 using the Direct method. **6**

Answer: 7 (a)

Working Notes and Calculations

1. Net worth = Equity Share Capital + Reserves + Surplus
   = **Rs.**4,00,000 + **Rs.**6,00,000 = **Rs.**10,00,000
2. Total Debt/Net worth = ½ or Total Debt/**Rs.**10,00,000 = ½ or Total Debt = **Rs.**10,00,000/2
   = **Rs.**5,00,000
3. Total of Balance Sheet (on Liabilities) = **Rs.**15,00,000 (after updating Working Note 2)
   Therefore Total Assets = **Rs.**15,00,000
4. Total Assets Turn–over = Turn–over/Total Assets = Turnover/**Rs.**15,00,000 = 2
   Or turnover (i.e. Sales) = **Rs.**15,00,000 × 2 = **Rs.**30,00,000
5. Cost of Goods Sole (COGS) = Sales less Gross Profit = **Rs.**30,00,000 less 30% thereon
   = **Rs.**21,00,000
6. Debtors = Sales × (40/360) = **Rs.**30,00,000 × (40/360) = **Rs.**3,33,333
7. COGS/Closing Inventory = **Rs.**21,00,000/Closing Inventory = 3 times
   ∴ Closing Inventory = **Rs.**21,00,000/3 = **Rs.**7,00,000
8. Acid Test Ratio = Quick Assets/Quick Liabilities = (debtors + Cash)/Current Liability
   = (**Rs.**3,33,333 + Cash)/ **Rs.**5,00,000 = 0.75
   ∴ Cash = **Rs.** 41,667

Since there is no Bank OD in the Balance Sheet format, Quick Liabilities = Current Liabilities

Balance Sheet as on 31st March 2018			
Liabilities	Rs.	Assets	Rs.
Equity Share Capital	4,00,000	Plant & Machinery & other Fixed Assets	4,25,000
Reserves and Surplus	6,00,000		
Total Debt:		Current Assets:	
Current Liabilities	5,00,000	Inventory	7,00,000
		Debtors	3,33,333
		Cash	41,667
Total	15,00,000	Total	15,00,000

Answer: 7 (b)

VEDIKA LTD.

Cash Flow Statement for the year ended 31st March, 2018

(Under Direct Method) (Amount in **Rs.** Lakh)

	Rs.	Rs.
Cash flow from operating activities:		
Cash receipts from customers	96.00	
Cash paid to suppliers and employees	(79.16)	
Cash inflow from operation	16.84	
Tax paid	(7.00)	
Net cash from Operating Activities		9.84

Suggested Answer_Syl16_Dec2018_Paper_10

Cash flow from investing activities:		
Purchase of Fixed Assets	(10.50)	
Proceeds from sale of Equipment	0.20	
Net cash from Investing Activities		(10.30)
Cash Flow from Financing Activities:		
Proceeds from issue of share capital	6.50	
Dividend paid	(4.00)	
Net Cash from Financing Activities		2.50
		2.04
Net increase in Cash and Cash equivalents:		
Cash and cash equivalents as at 31st March, 2017		2.10
Cash and cash equivalents as at 31st March, 2018		4.14
(Closing balance)		

Working Notes:

(i) Calculation of cash paid to suppliers and employees:

	(Rs. in lakh)
Cost of sales, 60% of Rs.96.00 lakh	57.60
Add: Expenses incurred	21.45
Outstanding expenses on 31.03.17	0.82
Excess of closing inventory over opening inventory	0.20
	80.07
Less: Outstanding expenses on 31.03.2018	0.91
	79.16

(ii) Proceeds from issue of share Capital:

Issue price of one share = Rs.10 + Rs.3 = Rs.13

Proceeds from issue of 50,000 shares = Rs.50000 × 13 = Rs.6.50 lakh

8. (a) GOLDEN GARMENT LTD. manufactures readymade garments and sells them on credit basis through a network of dealers. Its present sale is Rs.60 lakh per annum with 20 days credit period. The company is contemplating an increase in the credit period with a view to increasing sales. Present variable costs are 70 per cent of sales and the total fixed costs Rs.8 lakh per annum.

The company expects pre–tax return on investment @25per cent. Some other details are given as under:

Proposed credit policy	Average collection period (days)	Expected annual sales (Amount in Rs.lakh)
I	30	65
II	40	70
III	50	74

Required:

Which credit policy should the company adopt?

Present your answer in a tabular form. Assume 360–day a year. Calculations should be made up to two digits after decimal. Ignore taxation. 7

Suggested Answer_Syl16_Dec2018_Paper_10

(b) Jai & Karti Ltd. sells 1000,000 bottles of Soda in a year. Each bottle produced has a variable cost of Rs.5 and sells for Rs.10. Fixed operating costs are Rs.10,00,000. The company has debt of Rs.12,00,000 at 10% rate of interest.

As a Cost and Management Accountant you are required to calculate:

(i) The Degree of Operating Leverage,

(ii) The Degree of Financial Leverage, and

(iii) The Degree of Total Leverage. **5**

Answer: 8 (a)

Evaluation of proposed credit policies

(Amount in Rs. lakh)

	Present	**Proposed (Number of days)**		
	(20)	I (30)	II (40)	III (50)
(a) Sales revenue	60	65	70	74
Less: Variable costs (VC)	42	45.5	49	51.8
Total Contribution	18	19.5	21	22.2
Less: Fixed Cost (FC)	8	8	8	8
Profit	10	11.5	13	14.2
Increase in profit due to increase in total contribution compared to present profit	---	1.5	3	4.2
(b) Investment in debtors/receivables:				
Total costs (V+FC)	50	53.5	57	59.8
Debtors turnover ratio (DT)				
(360÷Average collection period)	18	12	9	7.2
Average investment in debtors				
(Total cost÷DT)	2.78	4.46	6.33	8.31
Additional investment compared to present level	--	1.68	3.55	5.52
Cost of additional investment @25%	--	0.42	0.89	1.38
(c) Incremental profit [(a) – (b)]	--	1.08	2.11	2.82

Recommendation: Policy III (average collection period 50 days) is recommended as it yields maximum profit.

Answer: 8 (b)

Contribution = **Rs.**5 ×10 lakh bottles = **Rs.**50,00,000

EBIT = **Rs.**40,00,000 (50,00,000 –10,00,000)

Interest = **Rs.** 1,20,000

EBT = (4000000 – 120000) = **Rs.**38,80,000

(i) Degree of Operating Leverage = $\frac{\text{Contribution}}{\text{EBIT}} = \frac{`\ 50,00,000}{`\ 40,00,000}$ =1.25 times

(ii) Degree of Financial Leverage = $\frac{\text{EBIT}}{\text{EBT}} = \frac{40,00,000}{38,80,000}$ =1.03 times

(iii) Degree of Total Leverage

= DOL × DFL

= 1.25 × 1.03 = 1.29

or, $\frac{\text{Contribution}}{\text{EBT}} = \frac{`50,00,000}{`38,80,000} = 1.29$

9. (a) You have been provided the following particulars pertaining to the three companies A LTD., B LTD., and D LTD., operating identical business:

Company	A Ltd	B Ltd	D Ltd
EBIT (Rs.)	15,00,000	15,00,000	15,00,000
No. of Shares	3,00,000	2,50,000	2,00,000
12% debentures (Rs.)		9,00,000	10,00,000

Every company expects 12% Return on investment (ROI)

Required:

Find out the value of the Companies A LTD., B LTD., and D LTD., and value of their equity shares as per the Modigliani–Miller (MM) approach 5

(b) ZENITH LTD. is faced with the problem of choosing between two mutually exclusive projects A and B. Project A requires a cash outlay of Rs.10,00,000 and cash running expenses of Rs.3,50,00 per year. On the other hand, Project B will cost Rs.15,00,000 and require cash running expenses of Rs.2,00,000 per year. Both the projects have an eight–year life. Project A has a salvage value of Rs.40,000 and Project B has a salvage value of Rs.1,40,000. The company's tax rate is 50% and it has a 10% required rate of return.

Required:

Assuming depreciation on straight line basis and that there is no funds constraint for the company, Ascertain which project should be accepted.

[Given: PVIFA (10%, 8 years) = 5.335 and PVIF (10%, 8 years) = 0.467]

Note: Solve the problem by an incremental cash flow approach. 7

Answer: 9 (a)

Calculation of value of each company under Modigliani–Miller approach:

Value of Company = $\frac{\text{EBIT}}{K_0}$

Company	A LTD.	B LTD.	D LTD
1. EBIT (Rs.)	15,00,000	15,00,000	15,00,000
2. ROI=K_0	12%	12%	12%
3. Value of company $\left[\frac{1}{2}\right]$ (Rs.)	1,25,00,000	1,25,00,000	1,25,00,000

Calculation of value of equity share for the Companies A Ltd., B Ltd., and D Ltd.

Company	A LTD.	B LTD.	D LTD
1. Value of company (Rs.)	1,25,00,000	1,25,00,000	1,25,00,000
2. Debt (Rs.)	--	9,00,000	10,00,000
3. Value of equity (1–2) (Rs.)	1,25,00,000	1,16,00,000	1,15,00,000

4. No. of equity shares	300000	250000	200000
5. Market price $\left[\frac{3}{4}\right]$ (Rs.)	41.67	46.40	57.50

Answer: 9 (b)

Zenith Ltd
Financial Evaluation of Project A & Project B

	Project A (Rs.)	Project B (Rs.)	Incremental Cash flows (Rs.)
Cash outflows	10,00,0000	15,00,0000	5,00,000
Cash running expenses	3,50,000	2,00,000	1,50,000
Depreciation	1,20,000	1,70,000	(50,000)
Total saving			1,00,000
Less: Tax @50%			(50,000)
Saving after Tax			50,000
Add: Depreciation (not being cash outflow)			50,000
Net Saving			1,00,000
Salvage value at the end of year 8	40,000	1,40,000	1,00,000
Present value of annual saving for 8 years=PV of annuity × net savings for 8 years = 1,00,000 × 5.335			5,33,500
Present value of incremental salvage value at end of year 8 = 0.467 × 1,00,000			46,700
Total			5,80,200
Less: Cash outflow (incremental)			5,00,000
Net present value (incremental)			80,200

Recommendation:

Since Project B has positive NPV over and above the NPV of Project A, Project B is recommended for acceptance.

Note: Working for depreciation:

Project A: (Rs.10,00,000 – 40,000)/8 years = Rs.1,20,000

Project B: Rs. (15,00,000 –1,40,000)/8 years = Rs. 1,70,000

10. Write short notes on any three out of the following: 4 × 3 = 12

(i) Defensive–Interval Ratio (DIR)

(ii) Venture Capital

(iii) Advantages of Ratio Analysis

(iv) Danger of inadequate amount of working capital

Answer: 10

(i) Defensive –Interval Ratio (DIR)–This ratio denotes the liquidity of a firm in relation to its ability to meet projected daily expenditure from operations.

It can be expressed as follows:–

$$\text{Defensive Interval Ratio} = \frac{\text{Liquid assets (quick assets)}}{\text{Daily Cash Requirements (Projected)}}$$

Daily cash requirements (projected) = Projected cash operating expenditure/Number of days in a year. The DIR is thought by many people to be a better liquidity measure than the quick and current ratios. Because these ratios compare assets to liabilities rather than comparing assets to expenses, the DIR and current/quick ratios would give quite different results if the company hand allot of expenses, but no debt.

(ii) Venture Capital is a form of equity financing especially designed for funding high risk and high reward projects. There is a common perception that Venture Capital is a means of financing high technology projects.

However, Venture Capital is investment of long term financial made in:

- Ventures promoted by technically or professionally qualified but unproven entrepreneurs or
- Ventures seeking to harness commercially unproven technology or
- High risk ventures

The term 'Venture Capital' represents financial investment in a highly risky project with the objective of earning a high rate of return. Venture capital (VC) is a type of private equity, a form of financing that is provided by firms or funds to small, early–stage, emerging firms that are deemed to have high growth potential, or which have demonstrated high growth (in terms of number of employees, annual revenue, or both). It is a type of funding for a new or growing business. It usually comes from venture capital firms that specialize in building high risk financial portfolios. With venture capital, the venture capital firm gives funding to the start–up company in exchange for equity in the start–up.

(iii) The following are some of the advantages of Ratio Analysis

- Measures the liquidity position of a firm.
- It is helpful for assessing the long–term financial liability of the firm.
- Helpful in measuring the operating efficiency or the turnover of the firm.
- Helps in assessing the profitability position of the firm.
- These ratios not only reflects the financial position of a firm but also serves as a tool for remedial actions.
- Helps in Inter–firm and Intra–firm Comparisons.
- The trend analysis of ratios indicates whether the financial position of a firm is improving or deteriorating over the years.

(iv) Danger of inadequate amount of working capital:

- Inadequate amount of working capital makes it difficult to implement operating plans and for achieving the firm's profit target.
- It stagnates growth. It will become very difficult to the firm to undertake profitable. ventures due to inadequacy of working capital funds.
- The firm may not be in a position to meet its day–to–day current obligations, leading to operational inefficiencies.

Suggested Answer_Syl16_Dec2018_Paper_10

- The ROI falls due to under–utilisation of fixed assets and other capabilities of the business concern.
- Credit facilities in the market will be lost due to faculty working capital.
- The reputation and goodwill of the firm will also be impaired considerably.

INTERMEDIATE EXAMINATION

GROUP II

(SYLLABUS 2016)

SUGGESTED ANSWERS TO QUESTIONS

JUNE 2019

Paper- 10: COST & MANAGEMENT ACCOUNTING AND FINANCIAL MANAGEMENT

Time Allowed: 3 Hours **Full Marks: 100**

The figures in the margin on the right side indicate full marks.

All workings must form part of your answer.
Wherever necessary, Candidates may make appropriate assumptions and clearly state them.

Please ***(1) Write answers to all parts of a question together.***
(2) Open a new page for answers to a new question.
(3) Attempt the required number of questions only.

This Paper has been divided into two Parts A& B, each carrying 50 marks.
Further each Part has been divided into two sections each.

Part-A

(COST & MANAGEMENT ACCOUNTING)

(50 Marks)

Section – I

Answer the following questions.

1. (a) Choose the correct answer from the given four alternatives (You may write *only* the Roman numeral and Alphabet chosen for your answer): 1x6=6

(i) Management Accounting

(A) accumulates, summarises and analyses the available data.

(B) is primarily concerned with the requirements of the management.

(C) makes Corporate Planning and Strategy effective.

(D) All of the above

(ii) XYZ Ltd. makes a special gadget for the car it manufactures. The machine for the gadget works to full capacity and incurs ₹ 15 Lakhs and ₹ 40 Lakhs respectively as Variable and Fixed Costs. If all the gadgets were purchased from an outside supplier, the machine could be used to produce other items, which would earn a total contribution of ₹ 25 Lakhs. What is the maximum price that XYZ Ltd. should be willing to pay to the outside supplier for the gadgets, assuming there is no change in Fixed Costs?

(A) ₹ 40 Lakhs
(B) ₹ 65 Lakhs
(C) ₹ 25 Lakhs
(D) ₹ 15 Lakhs

(iii) When a manager is concerned with monitoring total cost, total revenue and net profit conditioned upon the level of productivity, an accountant should normally recommend

	Flexible Budgeting	Standard costing
(A)	**Yes**	**Yes**
(B)	**Yes**	**No**
(C)	**No**	**Yes**
(D)	**No**	**No**

(iv) In a system whereby all activities are re-evaluated each time a budget is formulated and starts with assumption that requirement of funds does not exist is called

(A) Performance Budgeting
(B) Programme Budget
(C) Flexible Budget
(D) Zero-based Budgeting

(v) The difference between hours paid and hours worked is known as

(A) Labour rate variance
(B) Labour efficiency variance
(C) Idle time variance
(D) Net efficiency variance

(vi) The difference in total cost that results from two alternative courses of action is called

(A) Relevant Cost
(B) Opportunity Cost
(C) Differential Cost
(D) Marginal Cost

(b) Match the statement under Column I with the most appropriate statement under Column II: (You may opt to write only the numeral and the matched alphabet instead of copying the contents into the answer book): 1x4=4

Suggested Answers_Syl16_June2019_Paper 10

Column I		Column II	
1	Budgetary Control System	(A)	are useful for budget and performance evaluation
2	Standard Costs	(B)	helps in profit planning and analysis
3	Marginal Costing	(C)	aims at adherence to planning costs
4	Cost Control	(D)	The introduction and implementation of the system may be expensive

(c) State whether the following statements are *True*or *False:*(You may write only the Roman numeral and whether True or False without copying the statement into the answer book.): 1x4=4

(i) Marginal Costing is useful for long term planning.

(ii) Profit Planning and Control is not a part of Budgetary Control Mechanism.

(iii) Standard Costs are based on technical assessments.

(iv) PV Chart exhibits the relationship between profit and overhead volume.

Answer:

1. (a)

(i) (D)
(ii) (A)
(iii) (A)
(iv) (D)
(v) (C)
(vi) (C)

1. (b)

1. (D)
2. (A)
3. (B)
4. (C)

1. (c)

(i) False
(ii) False
(iii) True
(iv) False

Suggested Answers_Syl16_June2019_Paper 10

Section – II

Answer *any three* questions from question nos. 2, 3, 4 and 5.

Each question carries 12 marks.

2. (a) AARINA LTD. sells its product at ₹ 30 per unit. During the quarter ending 31st March, 2019 it produced and sold 16000 units and suffered a loss of ₹ 10 per unit. If the volume of sales is raised to 40000 units, it can earn a profit of ₹ 8 per unit.

You are required to calculate:

(i) Break-Even Point in Rupees.

(ii) Profit, if the sales volume is 50000 units. 2+2=4

(b) TRITONI LTD. produces 3 products A, B and C from the same manufacturing facilities. The cost and other details of the 3 products are as follows:

Particulars	A	B	C	Total
Selling Price/unit (₹)	200	160	100	
Variable Cost/unit (₹)	120	120	40	
Fixed Expenses/month (₹)				2,76,000
Maximum Production/month (units)	5000	8000	6000	
Total Hours available for the month				200
Maximum demand/month (units)	2000	4000	2400	

The processing hours cannot be increased beyond 200 hours/month.

You are required to:

(i) Compute the most profitable mix.

(ii) Compute the overall break-even sales of the company for the month based on the mix calculated in (i) above. 4+4=8

Answer:

2. (a)

P/V ratio = (Change in Profit/ Change in Sales Values) × 100

= {₹3,20,000 – (– ₹1,60,000)}/(₹12,00,000 – ₹4,80,000)×100

= (₹4,80,000 / ₹7,20,000) × 100 = 66.67%

Total Contribution in case of 40,000 units = Sales Value x P/V ratio

= ₹ 12,00,000 × 66.67% = ₹ 8,00,000

Fixed Cost = Contribution - Profit = ₹8,00,000 - ₹3,20,000 = ₹4,80,000

(i) Break Even Point in ₹ = Fixed Cost / P/V Ratio = ₹4,80,000 / 66.67% = ₹7,20,000

(ii) If Sales volume is 50,000 units, then Profit = {(Sales Value × P/V ratio) – Fixed Cost}

= {(50,000 units × 30) × 66.67%} – ₹4,80,000

= ₹5,20,000

(b)

Most Profitable Product Mix

(i)

Product	* No. of units to be produced	Contribution /unit (₹)	Total Contribution (₹)
A	2,000	80	1,60,000
B	1,600	40	64,000
C	2,400	60	1,44,000
		Total Contribution	3,68,000
		Less: Fixed Cost	(2,76,000)
		Profit	₹ 92,000

*** Please refer to Working Note-1:**

(ii) Overall Break Even Sales (based on the mix calculated in (i) above)

Break Even Sales (in ₹) = (Fixed Cost /Contribution) × Sales

= (₹2,76,000 /₹3,68,000) × ** 8,96,000

= ₹ 6,72,000

Working Note - 1:

Products	A	B	C
Selling Price/unit (₹)	200	160	100
Less Variable Cost/unit (₹)	(120)	(120)	(40)
Contribution/unit (₹)	80	40	60
Maximum Production/hr (units)	(5,000/200) = 25	(8,000/200) = 40	(6,000/200) = 30
Contribution per hour (₹)	2,000	1,600	1,800
Contribution/unit x Maximum Production/hr	(80x25)	(40x40)	(60x30)
Ranking	I	III	II
Units to be produced	2,000	1,600	2,400
Time requirement for the units to be produced-hrs	80	40	80

Suggested Answers_Syl16_June2019_Paper 10

Working Note - 2:

Products	Units	Selling Price/unit (₹)	Sales Revenue (₹)
A	2,000	200	4,00,000
B	1,600	160	2,56,000
C	2,400	100	2,40,000
			** 8,96,000

3. (a) WESTLAND LTD., a manufacturing company, operates standard costing system and showed the following data in respect of the month of May 2019:

Budgeted		Actual	
Working days	**20**	**Working days**	**22**
Man hours	**4000**	**Man hours**	**4200**
Fixed overhead cost (₹)	**2400**	**Fixed overhead cost (₹)**	**2500**
Output (units)	**800**	**Output (units)**	**900**

You are required to calculate the following Fixed overheads variances:

(i) FOH Budget Variance
(ii) FOH Cost Variance
(iii) FOH Efficiency Variance
(iv) FOH Capacity Variance
(v) FOH Calendar Variance
(vi) FOH Volume Variance **6**

(b) SHIBHUMA LTD., budgets to sell in the quarter ending March 31, 2019:

500 Units of product P @ ₹ 30 per unit,

400 Units of product Q @ ₹ 20 per unit and

100 Units of product R @ ₹ 50 per unit.

During the quarter Actual Sales were as follows:

400 Units of product P @ ₹40 per unit.

500 Units of product Q @ ₹10 per unit.

50 Units of product R @ ₹40 per unit.

You are required to determine the following sales variances:

(i) Sales Value variance
(ii) Sales Price Variance
(iii) Sales Volume Variance
(iv) Sales Mix Variance
(v) Sales Sub-Volume Variance **6**

Suggested Answers_Syl16_June2019_Paper 10

Answer:

3. (a)

$SR = \frac{\text{Budgeted FOH}}{\text{Budgeted Hours}} = \frac{2400}{4000} = 0.60$ (₹)

Standard Man hours per unit = $\frac{4000}{800} = 5$

Standard hours for Actual Output = 900 × 5 = 4500

Revised Budgeted Hours = ($\frac{22}{20}$ × 4000) = 4400

SRSH (₹) (1)	SRAH (₹) (2)	RBH5R (₹) (3)	SRBH (₹) (4)	ARAH (₹) (5)
0.6x4500 = 2,700	0.6x4200 = 2,520	0.6x4400 = 2,640	0.6x4000 = 2,400	2,500

Fixed overhead Variances:

(i) FOH Budget Variance = (4)-(5)=₹ 100(A)
(ii) FOH Cost Variance = (1)-(5)=₹ 200 (F)
(iii) FOH Efficiency Variance = (1)-(2)=₹ 180 (F)
(iv) FOH Capacity Variance = (2)-(3)=₹ 120 (A)
(v) FOH Calendar Variance = (3)-(4)=₹ 240 (F)
(vi) FOH Volume Variance = (1)-(4)=₹ 300 (F)

(b)

Product	AQAP (₹) (1)	AQSP (₹) (2)	RSQSR (₹) (3)	SQSP (₹) (4)
P	400×40 =16,000	400×30 =12,000	475×30 =14,250	500×30 =15,000
Q	500×10 =5,000	500×20 =10,000	380×20 =7,600	400×20 =8,000
R	50×40 =2,000	50×50 =2,500	95×50 =4,750	100×50 =5,000
	23,000	24,500	26,600	28,000

$RSQ = \frac{\text{SQ for that product}}{\text{SQ for all products}} \times \text{AQ for all products}$

$P = \frac{5}{10} \times 950 = 475$

$Q = \frac{4}{10} \times 950 = 380$

$R = \frac{1}{10} \times 950 = 95$

(i) Sales Value Variance = (1-4) = ₹ 5,000 (Adverse)
(ii) Sales Price Variance = (1-2) = ₹ 1,500 (Adverse)
(iii) Sales Volume Variance = (2-4) = ₹ 3,500 (Adverse)
(iv) Sales Mix Variance = (2-3) = ₹ 2,100 (Adverse)
(v) Sales Sub Volume Variance = (3-4) = ₹ 1,400 (Adverse)

Suggested Answers_Syl16_June2019_Paper 10

4.(a) SBT LTD., a newly established manufacturing company, has an installed capacity to produce 100000 units of a consumer product annually. However its practical capacity is only 90%.

The actual capacity utilization may be substantially lower, as the firm is new to the market and the demand is uncertain.

The following budget has been prepared for 90% capacity utilization.

Particulars	Cost per unit (₹)
Direct Materials	12
Direct Labour	8
Direct Expenses	5
Production Overheads	10 (40% Variable)
Administrative Overheads	5 (100% Fixed)
Selling and Distribution	6 (50% Variable)

You are required to prepare the budgets at 70% and 80% levels of capacity utilization giving clearly the

(i) Unit Variable Costs

(ii) Unit Fixed Cost

(iii) Total Cost under various heads at all the above levels 6

(b) DANDIA LTD., a manufacturing company, received an order for 16 units of a new product. So far, 4 units have been completed; the first unit required 40 direct labour hours and a total of 102.40 Direct labour hours has been recorded for the 4 units. The Production Manager expects on 80% learning effect for this type of work.

The direct cost attributed to the centre in which the unit is manufactured and its costs are as follows:

	₹
Direct Material	30.00 per unit
Direct Labour	6.00 per hour
Variable overhead	0.50 per direct labour hour
Fixed overheads apportioned	5.00 per direct labour hour

You are required to produce an estimated product cost for the initial order based on thecost data given. 6

Answer:

4. (a)

Suggested Answers_Syl16_June2019_Paper 10

SBT Ltd.
Budget for 70% and 80% level of capacity utilization

Amount in (₹)

Particulars		90%	70%	80%
Unils (A)		90,000	70,000	80,000
Direct Material	₹12	10,80,000	8,40,000	9,60,000
Direct Labour	₹ 8	7,20,000	5,60,000	6,40,000
Direct Expenses	₹5	4,50,000	3,50,000	4,00,000
Variable Production Overhead	₹4	3,60,000	2,80,000	3,20,000
Variable Selling Overhead	₹3	2,70,000	2,10,000	2,40,000
Total Variable Cost (B)		28,80,000	22,40,000	25,60,000
Variable Cost/unit (C) = (B) ÷ (A)		₹32	₹32	₹32
Fixed Production Overhead	(₹)	5,40,000	5,40,000	5,40,000
Fixed Administrative Overhead	(₹)	4,50,000	4,50,000	4,50,000
Fixed Selling Overhead	(₹)	2,70,000	2,70,000	2,70.000
Total Fixed Overhead (D)	(₹)	12,60,000	12,60,000	12,60,000
Fixed Cost/unit (E) = (D) ÷ (A)	(₹)	14	18	15.75
Total Cost/unit (F) = (C) + (E)	(₹)	46	50	47.75
Total Costs (B) +(D)		41,40,000	35,00,000	38,20,000

(b) 80% learning curve results are given below:

Production (units)	Cumulative Avg. time (hours)	Total time (hours)
1	40	40
2	(0.80×40) 32	64
4	(0.80×32) 25.6	102.40
8	20.48	163.843
16	16.384	262.144
32	13.1072	419.4304

Computation of total cost for the initial order of 16 units:

	₹
Material (30x16)	480.00
Direct labour (262.144x6)	1572.86
Variable overheads (0.5x262.144)	131.07
Fixed overhead apportioned (5x262.144)	1310.72
Total cost	**3494.65**

5. Write short notes on *any three* out of the following: 4x3=12

(a) Distinction between Standard Costing and Budgetary Control

(b) Inter Firm Comparison

(c) Methods of Transfer Pricing

(d) Limitations of Marginal Costing

Answer:

5. (a)

Distinction between Standard Costing and Budgetary Control

Standard Costing	Budgetary Control
❖ Standard Costs are pre-determined costs representing what costs should be, at the level of efficient condition of production and operation.	❖ Budgets are financial and or quantitative statements, prepared and approved prior to a defined period of time, of the policy to be pursued during that period for achieving the objective.
❖ are generally restricted to costs.	❖ include estimates of Income, Costs and employment of capital.
❖ Scope of Standard Costing is comparatively narrow as it covers mainly production costs.	❖ Budget is more widening, as it relates to the operation of the business as a whole. It covers Capital, Sales and Financial expenses in addition to production.
❖ It is a projection of cost accounts.	❖ Budget is a projection of financial accounts.

(b) Inter-Firm Comparison:

Inter-Firm Comparison, as the name denotes, means the techniques of evaluating the performances, efficiencies, deficiencies, costs and profits of similar nature of firms engaged in the same industry or business. It consists of exchange of information, voluntarily, concerning production, sales, costs with various types of break-up prices, profits etc., among the firms who are interested of willing to make the device a success.

The basic purposes of Inter-firm comparison are to find out the weak points in an organization and to improve the efficiency by taking appropriate measures to wipe out the weakness gradually over a period oftime.

Inter-firm comparison makes the management of the organization aware of the strengths and weaknesses in relation to other organizations in the same industry. Such comparison helps in developing cost-consciousness amongst the members of the industry.

(c) Methods of Transfer Pricing:

There are several methods for fixation of 'Transfer Price'.

Some of them are:

(i) Pricing based on Actual Cost/Cost plus basis/Standard Cost/Marginal Cost.
(ii) Market Price as transfer price. This will act as a good incentive for efficient production to the selling divisionand any inefficiency in production and abnormal costs will not be borne by the buying division.
(iii) Negotiated Pricing as the transfer price. The transfer prices are fixed through negotiations between the seller and the buyer division.
(iv) Pricing based on Opportunity Cost. This method recognizes the minimum price that the selling division is ready to accept and the maximum price that the buying division is ready to pay.

(d) Limitations of Marginal Costing:

(i) The separation of costs into fixed and variable presents technical difficulties. Infact, no variable cost is completely variable nor is a fixed cost completely fixed.
(ii) It is not correct to eliminate fixed costs from finished stock and work-in-progress.
(iii) The exclusion of fixed overhead from the inventories affects the P&L A/c and produces an unrealistic and conservative Balance Sheet,unless adjustments are made in the financial accounts at the end of the period.
(iv) In Marginal Costing System, marginal contribution and profits increase or decrease with changes in sales volume. Where sales are seasonal, profits fluctuate from period to period. Monthly operating statements under the Marginal Costing System will not, therefore, be as realistic or useful as in Absorption Costing.
(v) Marginal Costing does not give full information. For example, increased production and sales may be due to extensive use of existing equipments; (by working overtime or in shifts), or by an expansion of the resources, or by the replacement of labour force by machines. The Marginal Contribution fails to reveal these.
(vi) Marginal Costing does not provide any standard for the evaluation of performance. A system of Budgetary Control and Standard Costing provides more effective control than that obtained by Marginal Costing.
(vii) Though for short-term assessment of profitability, marginal costs may be useful, long-term is correctly determined on full costs only.
(viii) Although marginal costing eliminates the difficulties involved in the apportionment and under/over absorption of fixed overhead, the problem still remains in so far as the variable overhead is concerned.
(ix) With automation and technological developments, the impact of fixed costs on products is much more than that of variable costs. A system wwhich ignores fixed cots is therefore less effective because a major portion of costs is not taken care of.
(x) During earlier stages of a period of recession, the low profits or increase in losses in a magnified way in the marginal cost statements may unduly create panic and compel the management to take action that may lead to further depression of the market.

Suggested Answers_Syl16_June2019_Paper 10

Part-B

(FINANCIAL MANAGEMENT)

(50 Marks)

Section – III

Answer the following questions:

6. (a) Choose the correct answer from the given four alternatives (You may write only the Roman numeral and Alphabet chosen for your answer): 1x6=6

(i) Objective of Financial Management is

(A) Management of Liquidity

(B) Maximization of Profit

(C) Maximization of Shareholders' Wealth

(D) Management of Fixed Assets

(ii) Which of the following variables is not known in Internal Rate of Return?

(A) Initial Cash Flows

(B) Discount Rate

(C) Terminal Inflows

(D) Life of the Project

(iii) Cost of Capital refers to

(A) Floatation Cost

(B) Dividend

(C) Required Rate of Return

(D) None of the above

(iv) Working Capital Management involves financing and management of

(A) All Assets

(B) All Current Assets

(C) Cash and Bank Balance

(D) Receivables and Payables

(v) All listed companies are required to prepare

(A) Funds Flow statement

(B) Cash Flow Statement

(C) Statement of Affairs

(D) All of the above

(vi) Ratio Analysis can be used to study liquidity, turnover, profitability etc., of a firm. What does Debt-Equity Ratio help to study?

(A) Solvency

(B) Liquidity

(C) Profitability

(D) Turnover

Suggested Answers_Syl16_June2019_Paper 10

(b) Match the statement under Column I with the most appropriate statement under Column II: (You may opt to write only the numeral and the matched alphabet instead of copying the contents into the answer book): 1x4=4

Column I		Column II	
1.	Important element of Capital Budgeting is	(A)	represents a risky situation
2.	High Operating and Financial Leverage	(B)	may affect the size of working capital
3.	A consistent dividend policy	(C)	a tool for analysis of financial statements
4.	Fund Flow Statement is	(D)	the analysis of risk and uncertainty

(c) State whether the following statements are Trueor False:(You may write only the Roman numeral and whether True or False without copying the statement into the answer book.) 1 x4=4

(i) In Financial Management, the objective of Financial Manager is profit maximization.

(ii) Investment Decisions and Capital Budgeting are one and the same.

(iii) Operating Leverage analyses the relationship between Sales Level and Earning Per Share (EPS).

(iv) The Cost of Capital is the required rate of return to maintain the value of the firm.

Answer:

6. (a)

(i) (C)
(ii) (B)
(iii) (C)
(iv) (B)
(v) (B)
(vi) (A)

(b)

1. (D)
2. (A)
3. (B)
4. (C)

(c)

(i) False
(ii) False
(iii) False
(iv) True

Suggested Answers_Syl16_June2019_Paper 10

Section – IV

Answer *any three* questions from question nos. 7, 8, 9 and 10.

Each question carries 12 marks.

7. (a) The Balance Sheet of VASUDHA LTD. as on March 31, 2019 is as given below:

(Amount in ₹ lakhs)

Equity and Liabilities	Amount	Assets	Amount
Equity Share Capital	250	Fixed Assets	400
General Reserve	280	Investment	50
Profit & Loss a/c (Current year)	30	Stock	460
Secured Loans—Long Term	300	Debtors	460
Secured Loans—Short Term	360	Cash and cash equivalents	10
Creditors	150	Miscellaneous Expenditure (not Written off)	20
Other Liabilities	30		
	1,400		1,400

Additional information:

(i) From the P&L A/c, ₹ 90 Lakhs was transferred to General Reserve during the year

(ii) Interest Cost amounted to ₹ 120 lakhs

(iii) Taxation @ 40%

You are required to calculate

(i) Current Ratio

(ii) Debt-Equity Ratio **6**

(b) The following are the financial statement of KODIAC LTD. for the year ended March 31.

Balance Sheet as on March 31, (Amount in ₹ Thousand)

	2019	2018		2019	2018
Equity & Liabilities			Assets		
Share Capital	5,000	5,000	Fixed Assets	10,500	8,500
Profit & Loss A/c	5,000	4,250	Stock	3,000	3,400
Long-term Loan	5,500	5000	Debtors	3,450	3,800
Creditors	1,800	1,750	Cash and cash equivalents	350	300
	17,300	16,000		17,300	16,000

Income Statement for the year ended 31.3.2019

(Amount in ₹ Thousand)

Sales	21,500

Less:	**Cost of Sales**	**(14,700)**
		6,800
Less:	**Operating Expenses:**	
	Administrative Expenses	**(2,400)**
	Depreciation	**(1,000)**
		3,400
Add:	**Dividend Received**	**250**
		3,650
Less:	**Interest Paid**	**(700)**
		2,950
Less:	**Income Tax Profit after Tax**	**(1,300)**
		1,650

KODIAC Ltd. paid dividend of ₹ 9,00,000 during the year ended 31.03.2019.

Required:

Prepare a Cash Flow Statement of Kodiac Ltd. as per AS-3 (Revised) for the year ended March 31, 2019 using Indirect Method. 6

Answer:

7. (a)

(i) Current Ratio = Current Assets /Current Liabilities

= ₹930 lakhs /₹540 lakhs

= 1.72

(ii) Debt-Equity Ratio = Debt /Equity

= ₹ 300 lakhs/₹560 lakhs

= 0.54

Working Notes:

Current Assets :

Stock = ₹ 460 lakhs

Debtors = ₹ 460 lakhs

Cash and Cash Equivalent = ₹ 10 lakhs

= ₹ 930 lakhs

Current Liabilities :

Short term loans = ₹ 360 lakhs

Trade Creditors = ₹ 150 lakhs

Other Liabilities	= ₹ 30 lakhs
	₹ 540 lakhs
Debt :	
Term loan	= ₹ 300 lakhs
Equity :	
Capital	= ₹ 250 lakhs
Reserves	= ₹ 280 lakhs
P&L A/c	= ₹ 30 lakhs
	₹ 560 lakhs

Alternatively, Debt-Equity Ratio may be calculated as under:

Debt-Equity Ratio = ₹ 300 lakhs / ₹ 540 lakhs = 0.56

Debt
Term Loan = ₹ 300 lakhs

Equity

Capital	₹ 250 lakhs
Reserves	₹ 280 lakhs
P & L A/c	₹ 30 lakhs
	₹ 560 lakhs
Less: Misc. Exp.	₹ 20 lakhs
	₹ 540 lakhs

7.(b) **Cash Flow Statement of KODIAC Ltd. for the year ended March 31, 2019 (Indirect Method)**

(₹ In Thousand)

		₹
A.	**Cash Flow from Operating activities:**	
	Profit before Tax (PBT)and extra ordinary items:	2,950
	Add: Depreciation	1,000
	Interest paid	700
	Less: Dividend received (non-operation)	(250)
	Operating Profit	4,400
	Add: Decrease in stock	400
	Decrease in debtors	350
	Increase in creditors	50
		5,200
	Less: Tax paid	(1,300)
	Total cash provided by operating activities	3,900
B.	**Cash Flow from Investing activities:**	
	Purchase of Fixed assets (10,500+1,000-8,500)	(3,000)

	Dividend received on investments	250
	Cash used in investing activities	(2,750)
C.	**Cash Flow from Financing activities;**	
	Long-term Loan taken 500	
	Interest paid (700)	
	Dividend paid (900)	
	Net cash outflow from financing activities	(1,100)
	Net increase in cash during the year (A+B+C)	50
	Add: Cash and Cash equivalents on 31.03.2018	300
	Cash and cash equivalents on 31.03.2019	350

8. (a) GOLDILOCKS LTD. sells goods to domestic market on a gross profit of 25% on sales without considering depreciation. Its estimates for the year 2019-20 are as follows:

(Amount in ₹ Lakh)

Sales:	
Domestic Market at 2 months' Credit	**1600**
Export (Selling price 10% below home price)	**540**
(Exports at 3 months' Credit)	
Cost:	
Materials used (Suppliers extend 2 months' Credit)	**600**
Wages paid (1/2 month in Arrear)	**400**
Manufacturing Expenses (Paid 1 month in Arrear)	**600**
Sales Promotion (Payable quarterly in advance)	**80**
Administration Expenses (Paid 1 month in Arrear)	**200**

The company maintains one month's stock of each raw material and finished goods.

A cash balance of ₹ 20 lakh is also maintained.

There is no Work-in-Progress (WIP).

All expenses and incomes are made evenly throughout the year.

Required:

Prepare a statement of Working Capital Requirements of the Company for 2019-20 on Cash Cost basis. 7

(b) HILSON LTD. was started a year back with equity capital of ₹40 lakhs. The other details are as under:

Earnings of the company	**₹ 4,00,000**
Price Earning ratio	**12.5**
Dividend paid	**₹ 3,20,000**
Number of Shares	**40,000**

Required:

(i) Find the Current Market price of the share, and

(ii) Find whether the Company's D/P ratio is optimal —using Walter's model. 5

Answer:

8. (a)

Statement Showing the Requirement of Working Capital of Goldilocks Ltd. for 2019-20.

(Amount in ₹ Lakh)

Particulars		₹	₹
(A) Current Assets :			
Raw Materials	(600 x $\frac{1}{12}$)	50.00	
Finished Goods	(1800 x $\frac{1}{12}$)	150.00	200.00
Debtors :			
Domestic Market Sales	(1600 x 0.75x $\frac{1}{6}$)	200.00	
Export Market	(600 x 0.75 x $\frac{3}{12}$)	112.50	312.50
Sales Promotion Expenses	(80 x 0.25)		20.00
Cash Balance to be maintained			20.00
Total Current Assets			552.50
(B) Current Liabilities :			
Creditors for Raw materials	(600 x $\frac{2}{12}$)	100.00	
For wages	(400 x $\frac{1}{24}$)	16.67	
For Manufacturing Expenses	(600 x $\frac{1}{12}$)	50.00	
For Administration Expenses	(200 x $\frac{1}{12}$)	16.67	183.34
	Total Current Liabilities		183.34
	Working Capital Required (A – B)		369.16

Working Notes:

(₹in Lakhs)

(i) Cost of Production :

Material used	600
Wages paid	400
Manufacturing Expenses	600
Administration Expenses	200
	1,800

(ii) Export sales at equivalent to D. Sales (540/0.90) 600

(b)

(i) Walter's model is given by

$$P = \frac{D + (E - D)(r / k_e)}{K_e}$$

Where,

P = Market price per share.

E = Earnings per share =₹ 10

D = Dividend per share = ₹ 8

r = Return earned on investment = 10%

K_e = Cost of equity capital - 1/12.5 = 8%

$$P = \frac{8 + (10 - 8) \times \frac{0.10}{0.08}}{0.08} = \frac{8 + 2 \times \frac{0.10}{0.08}}{0.08}$$

= ₹ 131.25

(ii) According to Walter's model when the return on investment is more than the cost of equity capital, the price per share increases as the dividend pay-out ratio decreases. Hence, the optimum dividend pay-out ratio in this case is nil.

So, at a pay-out ratio of zero, the market value of the company's share will be:

$$\frac{0 + (10 - 0)\frac{0.10}{0.08}}{0.08} = ₹ 156.25$$

9. (a) The WONDERLAND LTD. has the following Book Value Capital Structure as on March 31, 2019:

	(Amount in ₹ Thousand)
600000 Equity Share at ₹ 10 each fully paid	**6000**
10000, 9% Preference Shares of ₹ 100 each	**1000**
30000, 12% Debentures of ₹ 100 each	**3000**
	10000

The equity share of the Company sells at ₹ 20 per share. The dividend expected next year is ₹ 2.5 per share, which is expected to grow at 5% per annum. Corporate tax rate is 30%.

You are required to determine the Weighted Average Cost of Capital (WACC) of Wonderland Ltd. based on the existing Capital Structure. 6

(b) ELROND LTD. (EL) has just installed MACHINE A at a cost of ₹ 2,00,000. This machine has 5 years life with no residual value. The annual volume of production is estimated at 150000 units, which can be sold at ₹ 8 per unit. Annual operating costs are estimated at ₹ 2,00,000 (excluding depreciation) at this output level. Fixed costs are estimated at ₹ 4,50,000 per annum for the same level of production.

The company has just come across another model called MACHINE B capable of giving the same output at an annual operating costs of ₹ 1,50,000 (excluding depreciation). There will be no change in fixed costs. Capital cost of this machine is ₹ 2,50,000 and the estimated life is 5 years with no residual value.

The company has an offer for sale of MACHINE A at ₹ 1,00,000. But the cost of dismantling and removal will amount to ₹ 30,000. As the company has not yet commenced operation, it wants to sell MACHINE A and purchase MACHINE B.

ELROND LTD. will be zero-tax company for 7 years in view of several incentives and allowances available. The cost of capital is 14%.

Required:

Based on the NPV Criterion, advise the Company whether it should opt to replace MACHINE A by installing MACHINE B.

[Given : PVIFA (14%, 5 years) = 3.433 and PVIF (14%, 5 years) = 0.519] (Solve the problem by an incremental cash flow approach.) 6

Answer:

9. (a)

$K_e = (D_1/P_0) + g = \frac{2.5}{20} + 0.05 = 0.175 = 17.5\%$

$K_p = 9\%$

$K_d = 12(1-0.30) = 8.4\%$

Calculation of Weighted Average Cost of Capital:

(₹ In thousand)

Sources	Amount	Weight	Cost %	K_0 (%)
Equity Shares	6,000	0.60	17.5	10.50
9% Preference Shares	1,000	0.10	9	0.90
12% Debentures	3,000	0.30	8.4	2.52
	10,000	1.00		**13.92**

Hence the weighted Average Cost of Capital (WACC) of Wonderland Ltd. is 13.92%.

(b)

Appraisal of Replacement decision Under NPV Method:

Calculation of Present Value of Net Cash outflow:

(Amount in ₹)

Cost of Machine B		2,50,000
Less : Sale proceeds of Machine A	1,00,000	
Cost of dismantling and removal	(30,000)	(70,000)
Net outflow		1,80,000

Calculation of Present Value of Incremental Cash inflow:

(Amount in ₹)

Particulars	Machine-A	Machine-B	Incremental
Sales P.A (units) Sales P.A (1,50,000 × 8)	1,50,000 12,00,000	1,50,000 12,00,000	-
Less : Expenditures :			
Operating Cost	2,00,000	1,50,000	50,000
Fixed Cost	4,50,000	4,50,000	-
Net Cash inflow			50,000
Present Value	50,000 ×3.433		1,71,650
Less: Out flow			(1,80,000)
Net Present Value			(8,350)

Decision: As NPV of Machine B is negative, the replacement decision is not financially feasible. So the Company should not replace the Machine A.

10. Write short notes on any three out of the following: 4x3= 12

(a) Lease Financing

(b) Objectives, Functions and Powers of the Securities Exchange Board of India (SEBI)

(c) Window Dressing

(d) Significance of Funds Flow Statement (FFS)

Answer:

(a) Lease Financing:

Lease Financing is an arrangement that provides a firm with the use and control over assets without buying and owning the same. It is a form of renting assets. It is a contract

between the owner of asset(lessor) and the user of the asset called the lessee, whereby the lessor gives the right to use the asset to the lease over an agreed period of time for a consideration called the lease rental. The contract is regulated by the terms and conditions of the agreement. The lessee pays the lease rent periodically to the lessor as regular fixed payments over a period of time.

There are two basic kinds of leases. They are:

(i) Operating or Service Lease

(ii) Financial Lease

An Operating Lease is a short term lease with the lease period being less than the useful life of asset. Such a lease is cancellable at a short notice by the lessee. Such a leasing is common to the equipments which require expert technical staff for maintenance and are exposed to technological developments e.g., computers, vehicles, data processing equipments etc.

A Financial Lease ensures the lessor for amortization of the entire cost of investment plus the expected return on capital outlay during the terms of the lease. Such a lease is usually for a longer period andnon-cancellable. These leases are commonly used for leasing land, building, machinery, fixed equipments etc.

(b) Objectives, Functions and Powers of the Securities Exchange Board of India (SEBI):

The overall objective of the SEBI is to protect the interests of the investors in securities and to promote the development of and to regulate the securities market and for matters connected therewith or incidental thereto.

To carry out its overall objectives, the SEBI performs the following functions:

- Regulate the business in stock exchanges and other securities markets;
- Registering and regulating the working of stock brokers, share-transfer agents, bankers, underwriters, portfolio managers, investment advisor and such other intermediaries, who may be associated with the securities market in any manner;
- Registering and regulating the working of depositories, custodians of securities, credit rating schemes, including mutual funds;
- Prohibiting fraudulent and unfair trade practices relating to the securities market.

It has the powers to call for periodical return from any recognized stock exchange.

It performs such functions and exercises such powers, under the Securities Contract(Regulation) Act, 1956, as may be delegated to it by the Central Government.

(c) Window Dressing in Accounts:

Window Dressing in accounts means action taken to improve the appearance of a company's financial statements. Window Dressing is particularly common when a business has a large number of shareholders, so that management can give the appearance of a well-run company, to its investors, who probably do not have much day -to-day contact with the business. It may also be used when a company, wants to impress a lender in order to qualify for a loan.

The Window Dressing concept is also used by fund managers, who replace poorly-performing securities with higher-performing ones just before the end of a reporting period, to give the appearance of having a robust set of investments.

The entire concept of Window Dressing is clearly unethical, since it is misleading. Also, it merely robs results from a future period in order to make the current period look better, so it is extremely short-term in nature.

From the legal point of view, Window Dressing is not illegal. But in some cases, it can be so. Window Dressing can be an illegal or fraudulent action, if it contradicts the law or accounting standards.

Generally, Window Dressing is considered to be an unethical practice because it involves a deception and advancement of management's interest instead of interests of information users(i.e., Owners, Investors, Government etc.

Some examples of Window Dressing are:

Cash: Postpone paying off suppliers, so that the period end cash balance appears higher than it should be.

Accounts Receivable: Record an unusually low bad debt expense, so that the Accounts Receivable figure looks better than is really the case.

(d) Significance of Funds Flow Statement (FFS):

Funds Flow Statement (FFS) is a widely used tool in the hands of financial executives for analysing the financial performance of a business concern. The Balance Sheet provides only a static view of the business. It is a statement of assets and liabilities on a particular date. It does not show the movement of funds. In business, funds flow from different sources and similarly funds are invested in various sources of investment. It is a continuous process. The study and control of this funds flow process is the main objective of Financial Management. There is a need to prepare a statement to know the changes in assets, liabilities and owners' equity between dates of two Balance Sheets. Such a statement is called FFS or 'Statement of Sources and Uses of funds' or 'Where come and Where gone statement'

FFS provides a summary of management decisions on financing activities of the firm and investment policy.

FFS helps the Finance Managers to completely analyse the various financial operations. It guides the management in formulating the financial policies such as dividend, reserves etc.

FFS serves as a measure of control to the management.

FFS helps in evaluating the firm's financing. It shows how the funds were obtained from various sources and used.

FFS acts as a guide for the future .It helps the management in knowing how effectively the working capital is put to use. It reveals the financial soundness of the business. It helps the management in framing its investing policy.

Paper 10 - Cost & Management Accounting and Financial Management

INTERMEDIATE EXAMINATION

GROUP - II

(SYLLABUS 2016)

SUGGESTED ANSWERS TO QUESTIONS

DECEMBER – 2019

Paper-10: Cost & Management Accounting and Financial Management

Time Allowed: 3 Hours **Full Marks: 100**

The figures in the margin on the right side indicate full marks.
All workings must form part of your answer.
Wherever necessary, Candidates may make appropriate assumptions and clearly state them.
Please (1) Write answers to all parts of a question together.
(2) Open a new page for answers to a new question.
(3) Attempt the required number of questions only.

This paper has been divided into two part A & B, each carrying 50 marks.
Further each part has been divided into two sections each.

Part-A

(Cost & Management Accounting)

(50 Marks)

Section-I

Answer the following questions.

1. (a) Choose the correct answer from the given four alternatives (You may write only the Roman numeral and alphabet chosen for your answer): 1X6=6

(i) A budget that gives a summary of all the functional budgets and projected Profit and Loss A/c is known as

(A) Master budget

(B) Flexible budget

(C) Performance budget

(D) Discretionary budget

(ii) When there are no opening or closing stocks, profit under marginal costing will be

(A) Greater than in absorption costing

(B) Less than in absorption costing

(C) Equal to absorption costing

(D) Greater, Lower or Equal depending on certain factors

(iii) Break Even Point can be reduced by

(A) Increasing selling price per unit

(B) Reducing the variable costs

(C) Reducing fixed costs

(D) All of the above

(iv) One of the following is not within the scope of Management Accounting

(A) Formulation of policies

(B) Classification and collection of costs

(C) Planning and co-ordinating the activities of the enterprise

(D) Decision making on alternative courses of action

(v) AB company budgets for fixed overhead of ₹24,000 and Production of 4800 units. Actual Production is 4200 units. If fixed overhead cost increased is ₹22,000, the Fixed overhead volume variance will be

(A) ₹1,000 (Adv.)

(B) ₹2,000 (Fav.)

(C) ₹3,000 (Adv.)

(D) ₹3,000 (Fav.)

(vi) Which one of the following does not describe a Transfer Pricing Method?

(A) Negotiated Transfer Pricing

(B) Market Price based Transfer Pricing

(C) Fixed Cost Based Transfer Pricing

(D) Opportunity Cost based Transfer Pricing

(b) Match the statement under Column I with the most appropriate statement under Column II (You may Opt to write only the numeral and the matched alphabet instead of coping the contents into the answer book): 1 X 4=4

	Column-I		Column-II
(i)	Absorption Costing	(A)	is concerned with accounting information, which is useful to Management.
(ii)	Management Accounting	(B)	at which total revenue is equal to total cost.
(iii)	Break Even Point	(C)	is frequently used in conjunction with establishing bid price for contract.
(iv)	Learning Curve	(D)	both fixed and variable costs are considered for inventory valuation.

(c) State whether the following statements are True or False (You may write only the Roman numeral and whether True or False without copying the statement into the answer book): 1X4=4

(i) A Sequential profit graph is prepared when multiple products are produced.

(ii) Management Accounting is largely based on accuracy than estimates.

(iii) Zero-Base budgeting is more suitably applicable to Discretionary Cost areas.

(iv) The PV ratio increases when the fixed cost of a firm decreases.

Answer :

1 (a) (i) (A)
(ii) (C)
(iii) (D)
(iv) (B)
(v) (C)
(vi) (C)

(b) (i) (D)
(ii) (A)
(iii) (B)
(iv) (C)

(c) (i) True
(ii) False
(iii) True
(iv) False

Section-II

Answer any three questions from question number 2, 3, 4 and 5.

Each question caries 12 marks.

2. (a) REAXON LTD. a manufacturing company provides you the following details for the year 2018.

Sales (16,000 units)	**₹16,00,000**
Less Expenses (including ₹ 8,00,000 Fixed Expenses)	**₹17,60,000**
Net loss	**₹ 1,60,000**

The manager believes that an increase of ₹4,00,000 in advertising outlays will increase sales substantially. His plan was approved by the chairman of the board:

Required:

(i) Calculate P/V Ratio and Break Even Sales.

(ii) What additional sales will be required to offset that increase in advertisement outlays?

(iii) What should be selling price per unit if the breakeven point is brought down to 20,000 units?

6

(b) ZEESLIN LTD. has furnished the following relevant information for the two years:

Year ended March 31	2018	2019
Sales	**₹ 9,30,000**	**?**
Profit/Volume Ratio (P/V ratio)	**50%**	**38%**

Margin of Safety sales as a % of total sales	**40%**	**22%**

There has been substantial savings in the fixed cost in the year 2019 due to the restructuring process. The company could maintain its sales quantity level of 2018 in 2019 by reducing selling price.
You are required to calculate the following:

(i) Sales for 2019 in ₹

(ii) Fixed cost for 2019

(iii) Break-even sales for 2019 in Rupees. **6**

Answer :

2. (a)

(i) Calculation of P/V Ratio and Break Even Sales (BES) :

$$\text{P/V Ratio} = \frac{\text{Sales} - \text{Variable Cost}}{\text{Sales}} \times 100$$

$$\text{P/V Ratio} = \frac{16,00,000 - 9,60,000}{16,00,000} \times 100$$

P/V Ratio = 40%

$$\text{BEP (Sales)} = \frac{\text{(Fixed Cost)}}{\text{(P / V Ratio)}}$$

= (₹ 8,00,000 + ₹ 4,00,000)/ 40%

= ₹ 30,00,000

Or,

BEP (Sales) Unit = (₹8,00,000+₹4,00,000)/(₹100-₹60)

= ₹12,00,000/₹40

= 30,000 units.

(ii) Additional Sales Volume $= \frac{\text{(Proposed Expenditure)}}{\text{(P/V Ratio)}}$

= ₹4,00,000/40%

= ₹10,00,000

(iii) Selling price if BEP is 20000 units:

BEP = Fixed cost / contribution

20,000 = 12,00,000/C, or C=₹12,00,000/20,000=₹60

S-V=C

Sales – ₹60 = ₹60

Sales = ₹60 + ₹60 = ₹120

Or,

SP per unit = VC Per unit + (Contribution/BEP)

= ₹60+ (₹12,00,000/20,000)

= ₹120

(b) In 2018 P/V Ratio = 50 %

Variable cost ratio = 100% – 50% = 50%

Variable cost in 2018 = ₹ 9,30,000 × 50% = ₹ 4,65,000

In 2019 sales quality has not changed. Thus variable cost in 2019 is ₹4,65,000.

In 2019 P/V ratio = 38%

Thus, variable cost ratio = 100% – 38% = 62%

(i) Thus sales in 2019 = ₹4,65,000/62% = **₹7,50,000**

At break-even point, fixed cost is equal to contribution.

In 2019, break-even sales = 100% - 22% (MS) = 78%

(ii) Break-even sales = ₹7,50,000 × 78% = **₹5,85,000**

(iii) Fixed cost = B.E. Sales × P/V ratio = ₹5,85,000 × 38% = **₹2,22,300**

3. (a) ESKAY LTD. a manufacturing company operating Standard Costing System produces a product Cemco by blending two basic raw materials. The following standard have been set up for materials:

Material	Standard Mix	Standard Price per kg.
A	40%	20
B	60%	30

Standard loss in process is 10%. During the month of September 2019 the Company produced 182 kg of Cemco. The Cost records for the period showed the following usage:

Material	Quantity(Kg)	Price per kg(₹)
A	90	18
B	110	34

You are required to calculate the following Material Variances:

(i) Material Cost Variance (MCV)

(ii) Material Price Variance (MPV)

(iii) Material Usage Variance (MUV) **6**

(b) The following information is extracted from the records of ALJHON LTD. a manufacturing company using standard costing system for the month ending October, 2019.

	Budget	Actual
Fixed Overhead	₹10,000	₹12,000
Production(units)	2,000	2,100
Standard Time per Unit (hours)	10	--
Actual Hours Worked	--	21,000

Required:

Calculate the following Fixed Overhead Variances:

(i) Fixed Overhead Cost Variance

(ii) Fixed Overhead Expenditure Variance

(iii) Fixed Overhead Volume Variance **6**

Answer :

3. (a) **Basic Calculation**

Material	Standard for 180 kg. output			Actual for 182 kg. output		
	Qty.(kg.)	Rate(₹)	Amount(₹)	Qty.(kg.)	Rate(₹)	Amount(₹)
A	80	20	1,600	90	18	1,620
B	120	30	3,600	110	34	3,740
Total	200		5,200	200		5,360
Less: Standard Loss	20			18		
	180		5,200	182		5,360

Standard Cost of Actual Output = ₹5,200 X $\frac{182}{}$= ₹ 5,257.78

Calculation of Variances:

1. Material Cost Variance = (Standard cost of actual output – Actual Cost)
= (₹5,257.78 – 5,360) **=₹102.22 (A)**

2. Material Price Variance = (SP – AP) × AQ

Material A = (20 –18) X 90 = ₹ 180.00 (F)

Material B = (30 – 34) X 110 = ₹ 440.00 (A)
=**₹ 260.00 (A)**

3. Material Usage Variance = (Std. Quantity for actual output – Actual Quality) × Std. Price

Material A = $\left(80\times\frac{182}{180}-90\right)\times 20$ = ₹ 182.22 (A)

Material B = $\left(120\times\frac{182}{180}-110\right)\times 30$ = ₹ 340.00 (F)

= **₹ 157.78 (F)**

(b) For Fixed Overhead Variance:

Actual Fixed Overhead incurred (Given)	₹12,000
Budgeted Fixed Overhead for the period	₹10,000
Standard Fixed overhead for production = (Standard output for actual time X Standard Fixed Overhead per unit) = 2100 unit X (₹ 10,000 ÷ 2,000 unit)	₹10,500

(i) Fixed Overhead Variance = Standard F.O. – Actual F.O.
= ₹10,500 – ₹12,000
= ₹1,500 (A)

(ii) F.O. Expenditure Variance = Budgeted F.O. – Actual F.O.
= ₹10,000 – ₹12,000

= ₹2,000 (A)

(iii) F.O. Volume Variance = Standard F.O. – Budgeted F.O.
= ₹10,500 – ₹10,000
= ₹500 (F)

4. (a) The following data have been compiled for TTA Tea Co regarding the budgeted and actual production of green tea packets for six months ending 30 June, 2019.

	(Amount in ₹)	
Production	**Units 40,000 (Budgeted)**	**Units 50,000 (Actual)**
Material Consumed	**1,35,000 (45,000 kgs @ ₹3 per Kg.)**	**1,89,750 (55,000 kgs @ ₹3.45)**
Wages at 3 hrs. per unit	**1,80,000 (@ ₹1.5 per hr.)**	**2,44,500 (@ ₹1.63 per hr.)**
Variable Overheads	**80,000 (@ ₹2 per unit)**	**1,25,000 (@ ₹2.5 per unit)**
Fixed Overheads	**75,000**	**1,00,000**
Total	**4,70,000**	**6,59,250**

During the budgeted period:

(i) Production is expected to go up to 60,000 units.

(ii) Material required is expected to go up to 65,000 kgs for production.

(iii) The prices of materials are expected to increase further in the same manner as they had increased over the budgeted price.

(iv) Labour charges are expected to increase by ₹ 0.50 per hour above the actual rate shown above though efficiency is expected to decline by 20%.

(v) Variable overheads are expected to increase by 10% over June 2019 Actual.

(vi) Fixed overheads are expected to increase by 20% over June 2019 Actual.

You are required to prepare the Production Cost Budget for the six months ending 31st December 2019. 5

(b) Division Z of STAREX LTD. is a profit center which produces four products A, B, C and D. Each product is sold in the external market also. Following data are available for the period:

	A	**B**	**C**	**D**
Market price per unit (₹)	**600**	**580**	**560**	**510**
Variable cost of production per unit (₹)	**520**	**400**	**360**	**335**
Labour hours required per unit (₹)	**3**	**4**	**2**	**3**

Product D can be transferred to division Y, but the maximum quantity that may be required for transfer is 15,000 units of D.

The maximum sales in the external market are:

A 16,800 units
B 15,000 units
C 13,800 units
D 9,600 units

Division Y can purchase the same product at a price of ₹500 per unit from outside instead of receiving transfer of product D from Division Z. 7

Required:

What should be the transfer price for each unit for 15,000 units of D, if the total Labour hours available in division Z are 1,20,000 hours.

Answer:

4. (a) Production Cost Budget for the Six months ending 31st December, 2019.

Particulars	Actual 6 months ending June 2019		Budget 6 months ending December 2019		
		Total		Total	Cost/unit (₹)
Production Level (Units)		50,000		60,000	
Materials	55,000 kgs x ₹3.45	1,89,750	65,000 kgs x ₹3.968	2,57,920	4.30
Wages	50,000 x 3 hrs. x ₹1.63	2,44,500	60,000 x 3.75hrs. x @₹2.13	4,79,250	7.99
Variable Overheads	50,000 kgs x₹2.5	1,25,000	60,000 kgs x ₹2.75	1,65,000	2.75
Fixed Overheads		1,00,000		1,20000	2.00
Total		**6,59,250**		**10,22,170**	**17.04**

Notes: Material cost increase is 15% over Budget figures. For six month ending Dec. 2019, an increase 15% over ₹3.45 is ₹3.968 Labour efficiency decreased by 20% leads to 3.75hrs. Total time required is 225000 hrs.

(b) Ranking a product when Labour hours is key factor :

Products	**A(₹)**	**B(₹)**	**C(₹)**	**D(₹)**
Market or Sales Price/ unit	600	580	560	510
Less: Variable Cost/ unit	520	400	360	335
Contribution/unit	80	180	200	175
Labour Hour/unit	3	4	2	3
Contribution per Labour Hour	26.67	45	100	58.33
Ranking(Priority)	**IV**	**III**	**I**	**II**
Maximum Demand	16,800	15,000	13,800	9,600

It the Capacity is 120000 hours (Limited);

Allocation of 120000 hrs (Units X L. Hr/Unit) on the basis of ranking (Ranking figure) 3600 60000 27600 28800

Time required meeting the demand of 15000 units of product D for division Y is 45000 hrs. The requirements of time viz.45000 hrs for providing 15000 units of product D for Division Y can be meet by sacrificing 3600 hrs. of product A (1200 units) and 41400 hours of products B (10350 units).

The required Transfer Price of Product D will be:

Variable cost + opportunity cost (contribution lost)

$$= 335 + \frac{[(45 \times 41400 + 26.67 \times 3600)]}{15000}$$

$$= \quad 335 + \frac{(1863000 + 96012)]}{15000}$$

$$= \quad 335 + 130.60 = ₹465.60$$

5. Write short notes on any three out of the following: 4x3=12

(a) Significance of Management Accounting

(b) Zero-Base Budgeting (ZBB)

(c) Limitations of Uniform Costing

(d) Uses of Learning Curve (LC)

Answer:

5. (a) Significance of Management Accounting

The various advantages that accrue out of management accounting are enumerated below:

(1) Delegation of Authority: Now a days the function of management is no longer personal. Management accounting helps the organization in proper delegation of authority for the attainment of the vision and mission of the business.

(2) Need of the Management: Management Accounting plays the role in meeting the need of the management.

(3) Qualitative information: Management Accounting accumulates the qualitative information so that management would concentrate on the actual issue to deliberate and attain the specific conclusion even 'for the complex problem.

(4) Objective of-the Business: Management Accounting provides measure and reports to the management thereby facilitating in attainment of the objective of the business

(b) ZERO BASE BUDGETING (ZBB) :

ZBB was introduced by Peter Pnyrs in 1969 who defined it as "a planning and budgeting process which requires each manager to justify his entire budget request in detail from scratch (hence zero base). Each manager states why he should append any money at all. This approach requires that all activities be identified as decision packages which will be evaluated by systematic analysis ranked in order of importance". According to CIMA London, ZBB is defined as "a method of budgeting whereby all-activities are revalued-each time a budget is set". Discrete levels activity are valued and combination chosen to match funds available.

Features of ZBB

1. All budget items old or new are considered afresh.

2. Amount spent on each budgets totally justified.

3. Departmental objectives are linked to corporate goals.

4. Cost benefit analysis of each budget is undertaken.

5. Managers at all level participate in ZBB.

Process of ZBB

Determination of set of objectives
Deciding upon the extent on which the technique. is used

↓

Determine the areas which require decision making.

↓

Developing decision and ranking them in order of performance.

↓

Preparation of budget and allocation of resources.

(c) Limitations of Uniform Costing:

- Uniform costing requires adoption of uniform standards and principles which sometimes due to different circumstances become difficult.
- Uniform costing involve sharing of information which sometimes .becomes undesirable for some firms.
- Uniform costing sometimes becomes expensive for small firms.
- Uniform costing promotes monopolistic tendency.
- The standards of uniform costing are sometimes misunderstood by member firms.
- For smaller unit it is costly i.e. cost of installation and operation may be more than the benefits derived.
- Develop monopolistic tendencies.

(d) Uses of learning curve:

Knowledge of learning curve can be useful both in planning and control. Standard cost for new operations should be revised frequently to reflect the anticipated learning pattern.

Its main uses are summarized below:

(i) Helps to analyze. Cost-Volume-Profit (CVP) relationship during familiarization phase of product or process. Learning curve can be used as a tool for forecasting.

(ii) Helps in developing budgets and profit planning of the project.

(iii) Helps in development of advantageous pricing policy.

(iv) It helps design engineers in making decisions based upon expected (predictable from past experience) rates of improvement.

(v) It is very useful to the Government in negotiations about the contracts.

(vi) It is quite helpful in setting standards in learning phase.

Part-B

(Financial Management)

(50 Marks)

Section-III

Answer the following questions.

6. (a) Choose the correct answer from the given four alternatives (You may write only the Roman numeral and alphabet chosen for your answer): 1 X 6 = 6

(i) Of the product of which two ratios is the ROI composed?

(A) Overall Turnover Ratio and Current Ratio

(B) Net Profit Ratio and Fixed Assets Turnover

(C) Working Capital Turnover Ratio and Net Profit Ratio

(D) Net Profit Ratio and Overall Turnover Ratio

(ii) A firm determines the shareholders' wealth by taking

(A) the number of people employed in the firm.

(B) the book value of the firm's assets less the book value of its liabilities.

(C) the amount of salary paid to its employees.

(D) the market price per share of the firm.

(iii) Capital Budgeting techniques which considers the time value of money is based on

(A) Cash Flows of the organization

(B) Accounting Profit of the organization

(C) Interest Rate on Borrowings

(D) Last Dividend Paid

(iv) Debt Financing is a cheaper source of finance because of

(A) Time Value of Money.

(B) Rate of Interest.

(C) Tax-deductibility of Interest.

(D) Dividends not Payable to lenders.

(v) What should be the optimum Dividend payout ratio, when r=12% and K_e=10%?

(A) Zero

(B) 50%

(C) 12%

(D) 100%

(vi) The term Float is used in

(A) Receivable Management

(B) Cash Management

(C) Marketable Management

(D) Inventory Management

(b) Match the statement under Column I with the most appropriate statement under Column II (You may Opt to write only the numeral and the matched alphabet instead of coping the contents into the answer book): 1 X 4 = 4

Column-I		Column-II	
(i)	Defensive interval Ratio	(A)	Exporter relinquishes the right to a receivable due in future for immediate cash payment
(ii)	Capital Asset pricing model	(B)	Two control limits are used for managing Balances
(iii)	Forfeiting	(C)	Risk- return trade off securities
(iv)	Miller and Orr model of Cash Management	(D)	Liquidity of a firm in relation to its ability to meet daily operating expenditure

(c) State whether the following statements are True or False (You may write only the Roman numeral and Whether True or False without coping the statement into the answer book): 1 X 4 = 4

(i) Wealth maximization goal is only an extension of profit maximization goal of the organization.

(ii) Cost of capital is not the minimum required rate of earning or the cut off rate of capital Expenditure.

(iii) Low degree of operating leverage and high degree of financial leverage is not an ideal situation.

(iv) IRR indicated that the discounting rate at which net present value is Zero.

Answer:

6. (a) (i) (D)
(ii) (B)
(iii) (A)
(iv) (C)
(v) (A)
(vi) (B)

(b) (i) D
(ii) C
(iii) A
(iv) B

(c) (i) True
(ii) False
(iii) False
(iv) True

Section-IV

Answer any three questions from question numbers 7, 8, 9 and 10.
Each question caries 12 marks.

7. (a) With the help of the following information, complete the Balance Sheet of MENWOOD LTD. as at 31st March, 2019.

Equity share capital	**₹1,00,000**	
The relevant ratios of the company are as follows:		
Current debt to total debt	**0.40**	
Total debt to owner's equity (Equity Shares Capital)	**0.60**	
Fixed assets to owner's equity (Equity Shares Capital)	**0.60**	
Total assets turnover	**2 Times**	
Inventory turnover	**8 Times**	**6**

(b) SHELLICOLA (IND) LTD. has furnished the following information for the year ended 31st march, 2019

	(₹ in Lakhs)
Net profit	**35,500.00**
Dividend (including interim dividend paid)	**10,000.00**
Provision for Income Tax	**7,500.00**
Income Tax paid during the year	**6,300.00**
Loss on sale of assets (net)	**60.00**
Book value of assets sold	**250.00**
Depreciation charged to P&L Account	**30,000.00**
Profit on Sale of investments	**150.00**

Value of investments sold	**40,650.00**
Interest expenses (due during the year)	**15,000.00**
Interest paid during the year	**15,780.00**
Increase in working capital (excluding cash and bank balance)	**84,100.00**
Purchase of fixed assets	**840.00**
Opening cash and bank balances	**1,032.50**
Closing cash and bank balances	**12,912.50**

You are required to prepare the cash flow statement in accordance with AS 3 (Revised) ended March 31st, 2019. 6

Answer:

7. (a)

Balance Sheet As at 31st March 2019

Liabilities	Amount(₹)	Assets	Amount(₹)
Equity Share Capital	1,00,000	Fixed Assets	60,000
Current debt	24,000	Cash	60,000
Long-Term Debt	36,000	Inventory	40,000
	1,60,000		1,60,000

Working Notes:

1. Total debt = 0.60 x Equity Shares = 0.60 x ₹1,00,000= ₹60,000

   Current debt to total debt = 0.40, hence current debt = 0.40 x ₹60,000 = ₹24,000

2. Fixed assets = 0.60 x Equity Shares = 0.60 x ₹1,00,000 = ₹ 60,000

3. Total Liabilities = Total debt + Equity Shares Capital = ₹60,000 + ₹1,00,000 =₹1,60,000
   (Assets= Liabilities+ Equity Share Capital).
   Since fixed assets are ₹60,000, hence, current assets should be ₹1,00,000.

4. Total assets to turnover = 2 times: inventory turnover = 8 times
   Hence, inventory/total assets = 2/8 =1/4,

   Total assets =₹ 1,60,000

   Therefore, inventory=₹1,60,000/4 =₹40,000,
   Balance on Asset side is Cash = ₹1,00,000 -₹40,000 = ₹60,000

(b)

SHELLICOLA LTD.

Cash follow statement for the year ended March 31, 2019

(a)	**Cash Flows from Operating Activities:**	**(₹) in Lakhs**
	Net Profit before taxation (35,500+7,500)	43,000
	Adjustment for :	
	Depreciation charged to P&L A/c	30,000
	Loss on sale of assets (net)	60
	Profit on sale of investments	(150)
	Interest expenses	15,000
	Operating profit before working capital changes	87,910
	Increase in working capital (excluding cash & bank balance)	(84,100)
	Cash generated from operations	3,810
	Less: Income tax paid	(6,300)
	Net cash used in operating activities (A)	**(2,490)**
(b)	**Cash Flows from Investing Activities:**	
	Sale of assets (250-60)	190
	Sale of investment (40,650+150)	40,800
	Purchase of fixed assets	(840)
	Net cash used in investing activities (B)	**40,150**
(c)	**Cash Flows from Financing Activities:**	
	Interest paid	(15,780)
	Dividend paid (incl. interim dividend)	(10,000)
	Net cash from financing activities (C)	**(25,780)**
	Net increase in cash and cash equivalent (A+B+C)	11,880
	Cash and cash equivalents at the beginning of the year	1,032
	Cash and cash equivalents at the end of the year	**12,912**

8. (a) BENTECH (I) LTD. is presently having credit sales of ₹12 lakh. The existing credit terms are 1/10, net 45 days and average collection period is 30 days. The current bad debts loss is 1.5%. In order to accelerate the collection process further as also to increase sales, the company is contemplating liberalization of its existing credit terms to 2/10, net 45 days. It is expected that sales are likely to increase by 1/3 of existing sales, bad debts increase to 2% of sales and average collection period to decline to 20 days. The contribution to sales ratio of the company is 22% and opportunity cost of investment in receivables is 15 per cent (pre-tax). 50 per cent and 80 per cent of customers in terms of sales revenue are expected to avail cash discount under existing and liberalization scheme respectively. The tax rate is 30%.
(Assume 360 days in a year).

Required:
Should the company change its credit terms? **6**

(b) NESTINO LTD. had the following Balance Sheet as on March 31, 2019.

Liabilities and Equity	₹ (in crores)	Assets	₹ (in crores)
Equity Share Capital (one crore shares of ₹10 each)	10	Fixed Assets (Net)	25
Reserves & Surplus	2	Current Assets	15
15% Debentures	20		
Current Liabilities	8		
	40		40

The additional information given is as under:

Fixed Costs per annum (exclusive interest)	**: ₹8 crores**
Variable operating cost ratio	**: 65%**
Total Assets turnover ratio	**: 2.5**
Income tax rate	**: 40%**

Required:
Calculate the following:

(i) Earnings per share

(ii) Operating Leverage

(iii) Financial Leverage

(iv) Combined Leverage **6**

Answer :

8. (a) Evaluation of Credit Policy

Working Notes:

(i) Calculation of Cash discount

Cash Discount = Total credit Sales X % of customers who take up discount X Rate

Present Policy = $\frac{12,00,000 \times 50 \times .01}{100}$ = ₹ 6,000

Proposed Policy = 16,00,000 × 0.80 × 0.02 = ₹25,600

(ii) Opportunity Cost of Investment in Receivables

Present Policy = 9,36,000 × (30 / 360) × (70% of 15) / 100 = 78,000 × 10.5/100 =₹8,190

Proposed Policy = 12,48,000 × (20/360) × 10.50/100 = ₹7,280

Statement showing Evaluation of Credit Policies

Particulars	Present Policy (₹)	Proposed Policy (₹)
Credit Sales	12,00,000	16,00,000
Variable Cost @ 78% of Sales	9,36,000	12,48,000
Bad Debts @1.5% and 2%	18,000	32,000
Cash discount	6,000	25,600

Profit before tax	2,40,000	2,94,400
Tax @30%	72,000	88,320
Profit after Tax	1,68,000	2,06,080
Opportunity Cost of Investment in Receivables	8,190	7,280
Net Profit	1,59,810	1,98,800

Advise: proposed policy should be adopted since the net benefit is increased by (₹1,98,800 – ₹1,59,810)= ₹38,990.

8. (b)

Total Assets = ₹ 40 crores

Total Asset Turnover Ratio = 2.5

Hence, Total Sales = ₹ 40 × 2.5 = ₹100 crores

Computation of Profits after Tax (PAT)

Particulars	₹(in crores)
Sales	100.00
Less: Variable operating cost @65%	65.00
Contribution	35.00
Less: Fixed cost (other than interest)	8.00
EBIT	27.00
Less: Interest on debentures (15% X 20)	3.00
PBT	24.00
Less: Tax@40%	9.60
Profit After Tax **(PAT)**	**14.40**

(i) Earnings per share

(EPS) = Profit after Tax (PAT) / No. of Equity shares

$$\therefore EPS = \frac{₹14.4 \text{ crores}}{1 \text{ crore equity shares}} = ₹14.40$$

(ii) Operating Leverage = $\frac{\text{Contribution}}{\text{EBIT}} = \frac{35}{27}$

= 1.296

(iii) Financial Leverage = $\frac{\text{EBIT}}{\text{PBT}} = \frac{27}{24}$

= 1.125

(iv) Combined Leverage = $\frac{\text{Contribution}}{\text{EBIT}} \times \frac{\text{EBIT}}{\text{PBT}}$

= 1.296 × 1.125

= 1.458

9. (a) The following is the capital structure of ZENITH LTD.:

Source of Capital	Book Value	Market Value
	(₹)	(₹)
Equity Shares @₹100 each	**80,00,000**	**1,60,00,000**
9% Cumulative preference shares @₹100 each	**20,00,000**	**24,00,000**
11 per cent debentures	**60,00,000**	**66,00,000**

Retained earning	**40,00,000**	**–**
	2,00,00,000	**2,50,00,000**

The current market price of the company's equity share is ₹200. For the last year the company had paid equity dividend at 25 per cent and its dividend is likely to grow 5 per cent every year. The corporate tax rate is 30 per cent and shareholders personal income tax rate is 20 per cent.

You are required to calculate:

(i) Cost of capital for each source of capital.

(ii) Weighted average cost of capital on the basis of market value weight. 6

(b) MONPTEK LTD. wants to replace its old machine with a new automatic machine. Two models A and B are available at the same cost of ₹5 lakhs each. Salvage value of the old machine is ₹1 lakh. The utilities of the existing machine can be used if the company purchases A. Additional cost of utilities to be purchased in that case is ₹1 lakh. If the company purchases B then all the existing utilities will have to be replaced with new utilities costing ₹1.8 lakhs. The earnings after taxation are expected to be:

Year	(cash in-flows of)		
	A ₹	B ₹	P.V.Factor @15%
1	1,00,000	2,00,000	0.87
2	1,50,000	2,10,000	0.76
3	1,80,000	1,80,000	0.66
4	2,00,000	1,70,000	0.57
5	1,70,000	40,000	0.50
Salvage value at the end of Year 5	50,000	60,000	

The targeted return on capital is 15%.

Based on Profitability Index Criterion, advise the company on which machine should be taken up by it. 6

Answer:

9. (a)

(i) Calculation of Cost of Capital for each source of capital :

1. Cost Equity Capital:

$$K_e = \frac{DPS\,(1+g)}{MP} \times 100 + g$$

$$= \frac{25\,(1+0.05)}{200} \times 100 + 5$$

$$= \frac{26.25}{200} \times 100 + 5$$

$$= 13.125 + 5 = 18.125\%$$

2. Cost of Preference Capital or K_p= 9%.

3. Cost of Debentures: K_d (after tax) = r(1–T) = 11(1–0.3) = 7.7%

(ii) Weighted Average Cost of Capital (On the basis of Market value weights)

Source	(Market Value) (₹)	Weight	Cost of Capital (after tax) (%)	WACC (%)
(1)	(2)	(3)	(4)	(5)=(3)×(4)
Equity Capital	1,60,00,000	0.640	18.125	11,600
Preference Share Capital	24,00,000	0.096	9	0.864
Debentures	66,00,000	0.264	7.7	2.033
Retained Earnings	-	-	-	-
	2,50,00,000	1,000		14.497

Hence, WACC on the basis of Market Value Weights = 14.497%. ie 14.50%

(b)

(i) Expenditure at year zero

Particulars	Machine A (₹) in Lakh	Machine B (₹) in Lakh
Cost of Machine	5.00	5.00
Cost of Utilities	1.00	1.80
Salvage of old machine	(1.00)	(1.00)
	5.00	**5.80**

(ii) Discounted value of Cash inflows

Amount (₹) in Lakh

Year	NPV Factor@15%	Machine A		Machine B	
		Cash inflows	Discounted value of inflows	Cash inflows	Discounted value of inflows
1	0.87	1.00	0.87	2.00	1.74
2	0.76	1.50	1.14	2.10	1.60
3	0.66	1.80	1.19	1.80	1.19
4	0.57	2.00	1.14	1.70	0.97
5	0.50	1.70	0.85	0.40	0.20
Salvage	0.50	0.50	0.25	0.60	0.30
Present value of Net Cash Inflow			**5.44**		**6.00**

$$\text{Profitability Index} = \frac{\text{Sum of PV of net Cash Inflow}}{\text{Initial Cash Outflow}}$$

$$\text{Machine A} = \frac{₹\ 5.44\ \text{lakh}}{₹\ 5.00\ \text{lakh}} = 1.088$$

$$\text{Machine B} = \frac{₹\ 6.00\ \text{lakh}}{₹\ 5.80\ \text{lakh}} = 1.034$$

Advice: Since the profitability Index is higher in the case of Machine A, it is better to choose Machine - A.

10. Write short notes on any three out of the following: 4×3=12

(a) Process of Debt Securitization

(b) Determinants of Working Capital

(c) Significance of Degree of Financial Leverage

(d) Need of Capital Budgeting Decision.

Answer:

10. (a) Process of debt securitization :

Process of debt securitization is as follows:

- The loans are segregated into relatively homogeneous pools.
- The basis of pool is the type of credit, maturity pattern, interest rate, risk etc.
- The assets pools are then transferred to a trustee.
- The trustee then issues securities which are purchased by investors.
- Such security(asset pool) are sold on the undertaking without recourse to seller.

In this way conversion of debts to securities is known as Debt securitization.

(b) Determinants of working capital

- Nature and size of the business
- Production policies
- Process of manufacture
- Growth and Expansion of Business
- Fluctuations in the Trade cycle.
- Terms and conditions of purchases and sales
- Dividend policy
- Price level changes
- Operating Efficiency
- Percentage of profits and appropriation out of profits
- Other Factors like co-ordination and control, market facilities sector of working, government policy, Tax consideration, availability of Labor and means of transport & communication system.

(c) Significance of Degree of Financial Leverage (DFL):

- Higher the DFL more is the risk.
- Higher the interest burden, higher is DFL, which means more a firm borrows more is its risk.
- Since DFL depends on interest burden, it indicates risk inherent in a particular mix and hence the name financial leverage.
- There is a unique DFL for each amount of EBIT

$$DFL = \frac{\text{Earning before Internet and tax}}{\text{Earning after internet}} = \frac{EBIT}{EBT}$$

(d) Need of Capital Budgeting Decision:

The selection of the next profitable Project of capital investment is the key Function of Financial Manager. The decisions taken by the management in this area affect the operations of the firm for many years.

Capital budgeting decisions may be generally needed for the following purposes:

(i) **Expansion:** Firm requires additional funds to invest in Fixed in Fixed assets when it intends to expand the production facilities.

(ii) **Replacement:** The machines and equipments used in production may either wear out or may be rendered obsolete due to new technology. The firm needs funds for modernization and renovation.

(iii) **Diversification:** Diversification in production would require large funds for long term investment.

(iv) **Buy or Leases:** This is most important area in financial management whether the firm acquires the desired equipment and building on lease or buy it.

(v) Research and development.

Support us by
checking out our social handles

Visit our website: https://www.buddingcma.in

[Kindly register to get all the updates instantly]

Following on Instagram:

Account Name: BUDDING_CMA.POSITIVITY

https://instagram.com/budding_cma.positivity?igshid=3d0y3ravpjey

Join us on Telegram:

Channel Name: Budding CMA

https://t.me/buddingcma

Thank you for all the SUPPORT