

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

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- (D) None of the above
- (iii) In a system whereby all activities are reevaluated 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)	Theodore 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)

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(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)	Theodore 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:

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- (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	50%	
Production (units)	(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: <u>Variable Costs</u> :		
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) $P = TFC/Q + VC$

$P = 11,50,000/100,000 + 143 = \text{Rs. } 154.50$

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

$3,000,000 = (190) (Q) - 1,150,000 - (143.00) (Q)$

$3,000,000 = (190 - 143.00) (Q) - 1,150,000$

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

$4,150,000 / (190.00 - 143.00) = Q = 88,298 \text{ units}$

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

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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

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- (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;

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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
Material 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. 1,600 – Rs. 1,430 = Rs. 170 (F)

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

Material A = Rs. 880 – Rs. 1,100 = 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. 1,200 – 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. 1,320 – 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

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

Alternatively MYV (1–4) = (SQ × SP) – (RSQ × SP) = Rs. 1,600 – Rs. 1,760 = 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:

Suggested Answer_Syl16_Dec2018_Paper_10

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) You 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.

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

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.)

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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)

$$\text{At 90\% Capacity,} = \text{Rs. } 14,000 \times (90\%/80\%) = \text{Rs. } 15,750$$

(ii) Repair & Maintenance (Variable Portion)

$$\text{At 90\% Capacity} = \text{Rs. } 800 \times (90\%/80\%) = \text{Rs. } 900$$

(iii) Direct Labour Hours:

$$\text{At 90\% Capacity,} = \text{Rs. } 1,24,000 \times (90\%/80\%) = \text{Rs. } 1,39,500$$

Answer: 4 (b)

Labour hours required:

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

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

$$= 5120 - 2000 = 3120 \text{ hours}$$

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.	-----

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	Rs. 35,040
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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

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- (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?

Suggested Answer_Syl16_Dec2018_Paper_10

- (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 is 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

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(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 31 st 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

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(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.

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Answer: 7 (a)

Suggested Answer_Syl16_Dec2018_Paper_10

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 = $\frac{1}{2}$ or Total Debt/Rs. 10,00,000 = $\frac{1}{2}$ 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 \times 2 = Rs. 30,00,000
5. Cost of Goods Sold (COGS) = Sales less Gross Profit = Rs. 30,00,000 less 30% thereon
= Rs. 21,00,000
6. Debtors = Sales \times (40/360) = Rs. 30,00,000 \times (40/360) = Rs. 3,33,333
7. COGS/Closing Inventory = Rs. 21,00,000/Closing Inventory = 3 times
 \therefore 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
 \therefore Cash = Rs. 41,667

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

Balance Sheet as on 31 st 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 31 st March, 2017		2.10
Cash and cash equivalents as at 31 st 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

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- (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.

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Answer: 8 (a)

Evaluation of proposed credit policies

(Amount in Rs. lakh)

	Present	Proposed (Number of days)		
		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

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

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

(iii) Degree of Total Leverage

$$= \text{DOL} \times \text{DFL}$$

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$$= 1.25 \times 1.03 = 1.29$$

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

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:

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

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

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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:–

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

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 had a lot 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 reflect the financial position of a firm but also serve 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 for 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.

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- 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.