

**Paper 10- Cost & Management Accounting and  
Financial Management**

# Answer to MTP\_Intermediate\_Syl2016\_June2018\_Set 2

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## Cost and Management Accounting and Financial Management

Full Marks: 100

Time allowed: 3 hours

### Part A (Cost and Management Accounting)

#### Section- I

1. Answer the following questions:

(a) Choose the correct answer from the given four alternatives:

[1 × 6 = 6]

(i) While computation of profit in marginal costing

- (A) Total marginal cost is deducted from total sales revenues
- (B) Total marginal cost is added to total sales revenues
- (C) Fixed cost is added to contribution
- (D) None of the above

(ii) If total cost of 100 units is ₹ 5000 and those of 101 units is ₹ 5030 then increase of Rs 30 in total cost is

- (A) Marginal cost
- (B) Prime cost
- (C) All variable overheads
- (D) None of the above

(iii) R&D budget and Capital expenditure budget are examples of

- (A) Short-term budget
- (B) Current budget
- (C) Long-term budget
- (D) None of the above

(iv) While determining material quantity standards, a proper consideration should be assigned to

- (A) Normal material wastage
- (B) Abnormal material wastage
- (C) Both a and b
- (D) None of the above

(v) Volume variance arises when

- (A) There is rise in overhead rate per hour
- (B) There is decline in overhead rate per hour
- (C) There is decrease or increase in actual output compared to the budgeted output
- (D) None of the above

(vi) In management accounting, an emphasis and focus must be

- (A) future oriented
- (B) past oriented
- (C) communication oriented
- (D) bank oriented

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

Column I	Column II
(i) Output Costing	(A) Decision Making
(ii) Variance Analysis	(B) Decision package
(iii) Differential Costing	(C) Management by Exception
(iv) ZBB	(D) Coal Industry

(c) State whether the following statements are True' or 'False':

[1x4=4]

- (i) Activity Based Costing is a traditional method of charging overhead.
- (ii) Abnormal Costs are uncontrollable.
- (iii) Ideal standards are achievable in normal course.
- (iv) Royalty based on units produced is considered as direct expenses.

Answer:

1. (a) (i)-(A)      (ii)-(A)      (iii)-(C)      (iv)-(A)      (v)-(C)      (vi)-(A)  
 (b) (i)-(D)      (ii)-(C)      (iii)-(A)      (iv)-(B)  
 (c) (i) False      (ii) False      (iii) False      (iv) True

2(a) The total production cost of HORIZON LTD. for making 6000 units is ₹35,000 and the total production cost for making 15000 units is ₹69,000. Once the production exceeds 10000 units additional fixed costs of ₹ 7,000 are incurred. What will be the full production cost per unit for making 12000 units?

2(b) M/s Shram Engineering Ltd. has just received an export order for its product which will required use of 50% of the factory's total capacity, which is estimated at 5,00,000 units. The condition of export order is that it has to be accepted in full only. The factory is currently operating at 60% level to meet the demand of domestic market where sale price per unit is ₹6. The export offer is at ₹ 4.70 per unit, which is less than the total cost of current production per unit as follows:

	₹
Direct Material	2.00
Direct Labour	1.50
Variable Expenses	0.50
Fixed overhead	1.00
Total cost	5.00

The company has the following options:

- (i) Accept the export order and cut back domestic sales as necessary.
- (ii) Remove the capacity constraint by installing necessary balancing equipment and also by working overtime to meet both domestic and export demand. This decision will increase fixed overhead by ₹ 20,000 and additional cost for overtime work will be for ₹ 35,000.

You are required to prepare a statement of costs & profits under each of above two options and advise the management suitably. [3+9 marks]

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**Answer: 2(a)** At 15,000 units total cost is ₹62,000 [69,000 – 7,000]

At 6,000 units total cost is ₹35,000

$$\text{Variable cost per unit} = \frac{62,000 - 35,000}{15,000 - 6,000} = \frac{27,000}{9,000} = ₹3.00$$

$$\text{Fixed cost} = ₹35,000 - (6,000 \times 3) = ₹17,000$$

$$\begin{aligned} \text{Therefore, Total cost for marketing 12,000 units} &= (12,000 \times 3 + 17,000 + 7,000) \\ &= ₹60,000 \end{aligned}$$

$$\text{Cost per unit} = 60,000 \div 12,000 = ₹5.00$$

**2(b)** Fixed overhead @ ₹ 1 per unit

So, Fixed overhead : 60% of 5,00,000 x 1 = ₹ 3,00,000

*Option – I*

	₹
Sales: Export      2,50,000 @ ₹ 4.70	11,75,000
Domestic      2,50,000 @ ₹ 6.00	15,00,000
<b>Total Sales Value</b>	<b>26,75,000</b>
Less: Variable cost of sales    5,00,000 x 4	20,00,000
<b>Contribution</b>	<b>6,75,000</b>
Less: Fixed overhead cost	3,00,000
<b>Profit</b>	<b>3,75,000</b>

*Option – II*

	₹
Sales: Export      2,50,000 @ ₹ 4.70	11,75,000
Domestic      3,00,000 @ ₹ 6.00	18,00,000
<b>Total Sales Value</b>	<b>29,75,000</b>
Less: Variable cost of sales    5,50,000 x 4	
Add: Overtime                    35,000	22,35,000
<b>Contribution (S – Vc)</b>	<b>7,40,000</b>
Less: Fixed overhead            3,00,000	
Add: Incremental cost            20,000	3,20,000
<b>Profit</b>	<b>4,20,000</b>

Option – II may be accepted since profit is more. But if the export order is not repeated in future it may create under utilization of capacity.

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3(a) The share of production and the cost-based fair price computed separately for a common product for each of the four companies in the same industry are as follows:

	A	B	C	D
Share of Production (%)	40	25	20	15
Costs:				
Direct materials (₹ /Unit)	75	90	85	95
Direct Labour (₹ /Unit)	50	60	70	80
Depreciation (₹ /Unit)	150	100	80	50
Other Overheads(₹ /Unit)	150	150	140	120
Total (₹ / Unit)	425	400	375	345
Fair Price (₹ /Unit)	740	615	550	460
Capital employed per Unit:				
(i) Net Fixed Assets(₹ /Unit)	1,500	1,000	800	500
(ii) Working Capital (₹/Unit)	70	75	75	75
Total (₹ /Unit)	1,570	1,075	875	575

**Required:**

*What should be the uniform price that should be fixed for the common product?*

3(b) In a factory of ZED LTD., where Standard Costing is followed, the budgeted fixed overheads for a budgeted production of 4800 units is ₹24,000. For a certain period actual (FOH) expenditure was ₹22,000 resulting in a fixed overhead volume variance of ₹ 3,000 (Adv.)

Calculate the actual production of ZED LTD. for the period.

[9+3 Marks]

**Answer:**

3(a) Assume Total Production = 100

	A	B	C	D	Total
Price	740	615	550	460	
(-)Cost	425	400	375	345	
Profit per unit	315	215	175	115	
Share of production	40	25	20	15	
Total Return	12,600	5,375	3,500	1,725	23,200
Capital Employed	1,570 x 40 = 62,800	1,075 x 25 = 26,875	875 x 20 = 17,500	575 x 15 = 8,625	1,15,800

$$\therefore \text{Average Return on Capital Employed} = \frac{23,200}{1,15,800} = 20\% \text{ (approx)}$$

Calculation of Uniform Price

A	[425 + (20% of 1,570)] x 40	29,560
B	[400 + (20% of 1,075)] x 25	15,375
C	[375 + (20% of 875)] x 20	11,000
D	[345 + (20% of 575)] x 15	6,900
	Total Cost + Profit	62,835
	No. of Units	100

$$\text{Uniform Price Per Unit} = \left( \frac{62,835}{100} \right) = 628.35$$

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3(b) Fixed Overhead volume variance = ₹3,000 (Adv) :

Budgeted Fixed overhead – Actual Production × Std. rate = 24,000 – Actual Production × (24,000 ÷ 4,800)

Hence, 3,000 (A) = 24,000 – Actual Production × 5

Actual Production for the period : (24,000 – 3,000) ÷ 5  
= 4,200 units.

4(a) A LTD.; a newly established manufacturing company has an installed capacity to produce 1,00,000 units of a consumer product annually. However its practical capacity is only 90%. The actual capacity utilisation may be substantially lower, as the firm is new to the market and demand is uncertain. The following budget has been prepared for 90% capacity utilisation:

	Cost per unit ₹
Direct Materials	12
Direct Labour	8
Direct Expense	5
Production Overheads	10 (40% variable)
Administration Overheads	5 (100% fixed)
Selling and Distribution	6 (50% variable)

You are required to prepare Flexible Budgets of a Consumer product at 70% and 80% levels of capacity utilization giving clearly the Variable Cost, Fixed Cost and the Total Costs under various heads at all stated levels

4(b) KYC Ltd received an export offer to produce 4 units of labour intensive product. The work is to be done using existing facilities after regular shift timings. The Overtime rate is Normal rate + 30%. A and B are interested to do the job. A whose is already experienced has normal wage is ₹48 per hour. B who is new has 90% Learning Curve ratio for this work. A will take 20 Hours for 1<sup>st</sup> unit while B will take 30 hours for the 1<sup>st</sup> unit. Advise whom should be chosen so that labour cost is minimal. [8+4 marks]

Answer: 4(a)

(i) Variance Overheads per unit:

Production overhead: 40% of ₹10 = ₹ 4.00

Selling & Distribution overhead: 50% of ₹6 = ₹3.00

(ii) Fixed Overheads:

Practical capacity is 90% of 1,00,000 = 90,000 units

Production overhead: (60% of ₹10 = ₹6) × 90,000 = ₹5,40,000

Administration overhead (100% of ₹5 = 5): 90,000 × 5 = ₹4,50,000

Selling and Distribution overhead (50% of ₹6 = 3): 90,000 × 3 = ₹2,70,000

Flexible budget of a consumer product

Capacity Production (units)	70%		80%	
	70,000		80,000	
	Total cost (₹ in Lakhs)	Cost per unit (₹)	Total cost (₹ in Lakhs)	Cost per unit (₹)
<b>Direct Costs:</b>				
Direct materials	8.40	12.00	9.60	12.00
Direct labour	5.60	8.00	6.40	8.00
Direct expenses	3.50	5.00	4.00	5.00
<b>Variable overheads</b>				

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Production overhead	2.80	4.00	3.20	4.00
Selling and distribution Overhead (Ref.W.N-i)	2.10	3.00	2.40	3.00
<b>Total Variable Cost (A)</b>	<b>22.40</b>	<b>32.00</b>	<b>25.60</b>	<b>32.00</b>
<b>Fixed overheads:</b>				
Production overhead	5.40	7.71	5.40	6.75
Administration overhead	4.50	6.43	4.50	5.62
Selling and Distribution Overhead (Ref. W.N.ii)	2.70	3.86	2.70	3.38
<b>Total fixed cost (B)</b>	<b>12.60</b>	<b>18.00</b>	<b>12.60</b>	<b>15.75</b>
<b>Total cost (A+B)</b>	<b>35.00</b>		<b>38.20</b>	
<b>Cost per unit (₹)</b>		<b>50.00</b>		<b>47.75</b>

(b) If A is chosen (ie. without learning effect)

Total labour cost=(4\*20 hours per unit)\*₹48 per hour\*130% OT=₹4992

If B is chosen (90% learning effect)

Additional Qty	Cumulative Qty	Average time per unit	Cumulative hours
1	1	30	30
1	2	90% of 30=27	54(2*27)
2	4	90% of 27=24.3	97.2 hours(4*24.3)

Labour cost=97.2\*₹42 per hour\*130%OT=₹5307.

Conclusion: A is preferable as cost is less.

5. Write short note on *any three* of the following:

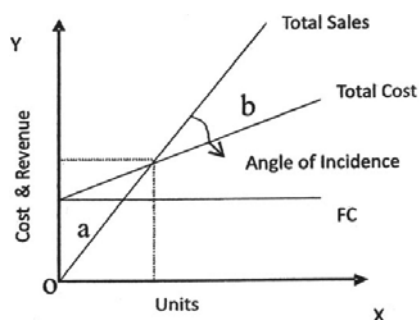
[4x3=12 marks]

- (a) Analyse B.E.P with the help of a graph.
- (b) Principles of Responsibility Accounting
- (c) Negotiated Price of Transfer Price.
- (d) Limitations of Inter-firm comparison

**Answer:**

(a) **Break Even Point (B.E.P)** is the volume of production or sales where total costs equals to total revenue. It is a no profit no loss situation for the company. It helps in finding out the relationship of costs and revenues to output. In understanding the break even point, cost, volume and profit are always used.

A formal break even chart would be as follows.



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The number of units is expressed on X-axis and the costs and revenues are expressed on Y-axis. There are three other lines, Fixed Cost (FC), Total Cost and Total sales. B.E.P is the point where total cost and total sales line intersect.

**(b)** Principles of responsibility accounting are as follows:

- (i) A target is fixed for each department or responsibility center.
- (ii) Actual performance is compared with the target.
- (iii) The variances from plan are analysed so as to fix the responsibility
- (iv) Corrective action is taken by higher management and is communicated.

**(c)** Under this method, the transfer prices may be fixed through negotiations between the selling and the buying division. Sometimes it may happen that the concerned product may be available in the market at a cheaper price than charged by the selling division. In this situation the buying division may be tempted to purchase the product from outside sellers rather than the selling division. Alternatively the selling division may notice that in the outside market, the product is sold at a higher price but the buying division is not ready to pay the market price. Here, the selling division may be reluctant to sell the product to the buying division at a price, which is less than the market price. In all these conflicts, the overall profitability of the firm may be affected adversely. Therefore it becomes beneficial for both the divisions to negotiate the prices and arrive at a price, which is mutually beneficial to both the divisions. Such prices are called as 'Negotiated Prices'. In order to make these prices effective care should be taken that both, the buyers and sellers should have access to the available data including about the alternatives available if any. Similarly buyers and sellers should be free to deal outside the company, but care should be taken that the overall interest of the organization is not affected.

- The main limitation of this method is that lot of time is spent by both the negotiating parties in fixation of the negotiated prices.
- Negotiating skills are required for the managers for arriving at a mutually acceptable price, otherwise there is a possibility of conflicts between the divisions.

**(d)** The practical difficulties that are likely to arise in the implementation of a scheme of inter-firm comparison are:

- (i) The top management may not be convinced of the utility of inter-firm comparison.
- (ii) Reluctance to disclose data which a concern considers to be confidential.
- (iii) A sense of complacency on the part of the management who may be satisfied with the present level of profits.
- (iv) Absence of a proper system of Cost Accounting so that the costing figures supplied may not be relied upon for comparison purposes.
- (v) Non-availability of a suitable base for comparison.



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## Part B (Financial Management)

### Section III

6 ) Answer the following questions:

(a) Choose the correct answer from the given four alternatives:

[1 x 6=6 marks]

(i) Liquidity ratios are expressed in

- (A) Pure ratio form
- (B) Percentage
- (C) Rate or time
- (D) None of the above

(ii) Which of the following are sources of funds?

- (A) Issue of bonus shares
- (B) Issue of shares against the purchase of fixed assets
- (C) Conversion of debentures into shares
- (D) None of the above

(iii) In cash flow statement, the item of interest is shown in

- (A) Operating Activities
- (B) Financing Activities
- (C) Investing Activities
- (D) Both B and C

(iv) Which of the following would be consistent with a more aggressive approach to financing working capital?

- (A) Financing short-term needs with short-term funds.
- (B) Financing permanent inventory buildup with long-term debt.
- (C) Financing seasonal needs with short-term funds.
- (D) Financing some long-term needs with short-term funds.

(v) A risk associated with project and way considered by well diversified stockholder is classified as

- (A) expected risk
- (B) beta risk
- (C) industry risk
- (D) returning risk

(vi) A project whose cash flows are more than capital invested for rate of return then net present value will be

- (A) positive
- (B) independent
- (C) negative
- (D) zero

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(b) Match the statement in Column I with appropriate statement in Column II [1x4=4 marks]

Column I	Column II
(i) DSCR	(A) Commitment to meet short term liabilities
(ii) Current Ratio	(B) Ability of borrower to service loan
(iii) Debt –Equity ratio	(C) Share holders' Funds/ Total tangible Assets
(iv) Proprietary ratio	(D) Total long term Debt/Shareholders' Funds

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

- (i) Deciding on the total amount of assets needed by the firm is a key step in the investment decision.
- (ii) The price of a share of common stock acts as a barometer indicating how well management is doing on behalf of shareholders.
- (iii) Companies with high growth rates tend to have high dividend-payout ratios because they want to attract more investors.
- (iv) An increase in an asset is a source of funds.

Answer:

- 6(a) (i)-(A)    (ii)-(D)    (iii)-(D)    (iv)-(D)    (v)-(B)    (vi)-(A)
- (b) (i)-(B)    (ii)-(A)    (iii)-(D)    (iv)-(C)
- (c) (i)True    (ii)True    (iii)False    (iv)False

7(a) ABC Limited has made plans for the year 2013-2014. It is estimated that the Company will employ total assets of ₹ 25,00,000; 30% of assets being financed by debt at an interest cost of 9%p.a. The direct cost for the year are estimated at ₹ 15,00,000 and all other operating expenses are estimated at ₹ 2,40,000. The sales revenue is estimated at ₹ 22,50,000. Tax rate is assumed to be 50%. Required to calculate:

- (i) Net profit margin
- (ii) Return on assets

(b) The fixed assets and equities of EM Co. Ltd. are supplied to you both at the beginning and at the end of the year 2016-17:

	1.04.16	31.03.17
	Rs.	Rs.
Plant Less Depreciation	63,500	1,42,500
Investment in Shares of SM Company	1,32,000	2,90,000
Bonds Payable	2,50,000	70,000
Capital Stock	4,00,000	4,00,000
Retained Earnings	2,38,000	4,10,500

You are not in a position to have complete Balance Sheet data or an income statement for the year in spite of the fact that you have obtained the following information:

- (i) Dividend of Rs. 37,500 were paid.
- (ii) The net income included Rs. 13,000 as profit on sale of equipment. There has been an increase of Rs. 93,000 in the value of gross plant assets even though equipments worth Rs. 29,000 with a net book value of Rs. 19,000 was disposed off. From the particulars given above, prepare a statement of sources and uses of net working capital.

[4+8 marks]

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**Answer: 7(a)** The net profit is calculated as follows:

Sales revenue	22,50,000
<b>Less: Direct Costs</b>	<u>15,00,000</u>
Gross profits	7,50,000
<b>Less: Operating Expenses</b>	<u>2,40,000</u>
EBIT	5,10,000
<b>Less: Interest (9% x 7,50,000)</b>	<u>67,500</u>
EBT	4,42,500
<b>Less: Taxes @ 50%</b>	<u>2,21,250</u>
PAT	<u>2,21,250</u>

Debt = 25,00,000 × 30% = ₹ 7,50,000

Equity = 25,00,000 × 70% = ₹ 17,50,000

(i) Net Profit Margin =  $\frac{\text{EBIT} (1 - t) \times 100}{\text{Sales}}$   
 $= \frac{5,10,000 (1 - 0.5) \times 100}{22,50,000}$   
 $= 11.33\%$

(ii) Return on Assets (ROA)  
 $\text{ROA} = \frac{\text{EBIT} (1 - t)}{\text{Total Assets}}$   
 $= \frac{5,10,000 (1 - 0.5)}{25,00,000}$   
 $= \frac{3,06,000}{25,00,000}$   
 $= 0.102$   
 $= 10.2\%$

**7(b) Working Notes:**

(i) Purchase of plant	₹
Net increase in gross value	93,000
Add: Gross value of plant sold	<u>29,000</u>
	<u>1,22,000</u>

(ii) Depreciation on plant and machinery

<b>Plant and Machinery Account</b>			
Rs.		₹	
To Balance	63,500	By Sale of Plant & machinery	19,000
b/d		A/c	
To Purchases	1,22,000	By Depreciation (balancing figure)	24,000
		By Balance c/d	<u>1,42,500</u>
	<u>1,85,500</u>		<u>1,85,500</u>

(iii) Funds from Operations	Rs.
Increase in retained earnings [4,10,500 – 2,38,000]	1,72,500
Add: Dividend paid	37,500
Add: Depreciation on plant	<u>24,000</u>
	2,34,000
Less: Gain on sale of equipment	<u>13,000</u>
	<u>2,21,000</u>

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## Statement of Sources and Uses of Fund

Sources	₹	Uses	₹
Funds from operation	2,21,000	Purchase of plant	1,22,000
Sale of equipment	32,000	Purchase of Investments	1,58,000
		(2,90,000 - 1,32,000)	
Decrease in net working capital	2,44,500	Payment of bonds	1,80,000
(Balancing figure)		Dividends	37,500
	<u>4,97,500</u>		<u>4,97,500</u>

8 (a) A dealer, having annual sales of ₹50 lakhs, extends 30 days credit period to its debtors. The variable cost is estimated at 80% of sales and fixed costs are ₹6,00,000.

The dealer intends to change the credit policy for which the following information is given:

Credit Policy	Average Collection	Annual Sales
A	45	56
B	60	60
C	75	62

Rate of Return (Pre-tax) required on investment is 20% [Consider 365 days a year]

You are required to-

Assess the most profitable credit policy with the help of incremental approach. [Calculations must be restricted to two decimal places].

(b) C Limited paid a dividend of ₹ 5 per share for 2016-17. The company follows a fixed dividend payout ratio of 60%. The company earns a return of 20% on its investment. The cost of capital to the company is 14%. What would be the expected market price of its share, using the Walter Model? [8+4 marks]

Answer: 8(a)

### Evaluation of Proposed Credit Policies

Credit Policy	(₹ in lakhs)			
	Present	A	B	C
Period (days)	30.00	45.00	60.00	75.00
Annual sales	50.00	56.00	60.00	62.00
Variable cost (80% of sales)	40.00	44.80	48.00	49.60
Fixed Cost	6.00	6.00	6.00	6.00
Total Cost	46.00	50.80	54.00	55.60
Profit (A.S – T.C)	4.00	5.20	6.00	6.40
Incremental Profit (A)		1.20	2.00	2.40
Average Investment in Debtors:				
Present: $46 \times [30 / 365]$	3.78			
A: $50.8 \times [45 / 365]$		6.26		
B: $54 \times [60 / 365]$			8.88	
C: $55.6 \times [75 / 365]$				11.42
Incremental Investment in Debtors as compared to Present level:	-	2.48	5.10	7.64
Required return: 20% incremental investment [B]	-	0.50	1.02	1.53
Excess return [A – B]	-	0.70	0.98	0.87

Policy B, having Average Collection Period 60 days, yields the maximum profit and thus is more profitable.

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(b)  $EPS = \text{Dividend} / \text{Payout Ratio} = ₹5 / 0.6 = ₹8.33$

Expected market price according to Walter Model:

$$P = [D + (E - D) * (r/k)] / k$$

Where P is the market price per share

D = Dividend per share

E = Earning per share

r = internal rate of return on investment fund

k = cost of capital

$$P = [5 + (8.33 - 5) * (0.20 / 0.14)] / 0.14 = ₹69.69$$

9(a) S Ltd's. Operating income is ₹5, 00,000. The firms cost of debt is 10% and currently firm employs ₹15, 00,000 of debt. The overall cost of capital of the firm is 15%. You are required to determine:

- i. Total value of the firm
- ii. Cost of Equity

9(b) A bond costing @ ₹800 is redeemable after 5 years @ ₹1,000. No interest is to be received and the discounting rate is 10%. What would be the NPV of bond? [7+5 marks]

Answer:

9(a) Statement showing value of the firm

	Amount in (₹)
Net operating Income/EBIT	5,00,000
Less: interest on Debentures (10% of ₹15,00,000)	1,50,000
Earnings Available for equity shareholders	3,50,000
Total cost of Capital ( $K_o$ ) (given)	15%
Value of the Firm $V_F = \frac{EBIT}{K_o} = \frac{₹5,00,000}{0.15}$	33,33,333
(ii) Market value of Debt (D)	15,00,000
Market value of equity $V_E = V_F - V_D = ₹33,33,333 - ₹15,00,000$	18,33,333

ii) Cost of equity

$$(K_e) = \frac{\text{Earnings Available for Equity Holders}}{\text{Market value of Equity}} = \frac{EBIT - \text{Interest paid on Debt}}{\text{Market value of Equity}} = \frac{₹5,00,000 - ₹1,50,000}{₹18,33,333} = 19.09\%$$

(b) Outflow in purchasing a bond of ₹ 800

Inflow on Redemption of bond at the end of 5<sup>th</sup> year = ₹1,000

Present value of inflow =  $1000 \times PVIF_{(10\%, 5\text{th year})}$

$$= 1000 \times 0.62092 = ₹620.92 \text{ i.e. } 621$$

NPV = Present value of inflow - Present value of outflow

$$NPV = ₹621 - ₹800$$

$$NPV = ₹(179).$$

# Answer to MTP\_Intermediate\_Syl2016\_June2018\_Set 2

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10) Write short note on any three of the following:

[3x4 marks]

- (a) Features of Financial lease
- (b) Write the basic propositions of the MM Approach.
- (c) Explain how the combined effects of operating and financial leverages provide the risk profile of an organization.
- (d) Importance of Cost of Capital in Financial Management.

**Answer:**

(a) A lease is classified as Financial Lease if it ensures the lessor for amortization of the entire cost of investment plus the expected return on capital outlay during the terms of the lease.

A Financial Lease is usually characterized by the following features:

- (i) The present value of the total lease rentals payable during the period of the lease exceeds or is equal substantially the whole of the fair value of the leased asset. It implies that within the lease period, the lessor recovers his investment in the asset along with an acceptable rate of return.
- (ii) As compared to Operating Lease, a Financial Lease is for a longer period of time.
- (iii) It is usually non cancellable by the lessee prior to its expiration date.
- (iv) The lessee is generally responsible for the maintenance, insurance and services of the asset. However, the terms of lease agreement, in some cases may require the lessor to maintain and service the asset. Such an arrangement is called –maintenance or gross lease|. But usually in an Operating Lease, it is lessee who has to pay for maintenance and service costs and such a lease is known as –net lease|.
- (v) A Financial Lease usually provides the lessee an option of renewing the lease for further period at a normal renewing the lease for further period at a normal rent.

**(b) Basic Propositions:**

M -M Hypothesis can be explained in terms of two propositions of Modigliani and Miller. They are:

- The overall cost of capital ( $K_o$ ) and the value of the firm are independent of the capital structure. The total market value of the firm is given by capitalizing the expected net operating income by the rate appropriate for that risk class.
- The financial risk increases with more debt content in the capital structure. As a result cost of equity ( $K_e$ ) increases in a manner to offset exactly the low - cost advantage of debt. Hence, overall cost of capital remains the same.

**(c)**

The total risk involved in a firm can be determined by combining the operating and financial leverages. The Degree of combined leverage is calculated by multiplying the two leverages. As a rule, a firm having a high operating leverage should have a low financial leverage and vice versa. If a firm has both the leverages at a high level, it will be a very risky proposition because the combined effect of the two is a multiple of these two leverages. As such if a firm has a high operating leverage the financial leverage should be kept low. Thus it will be necessary to have a proper balance between operating and financial leverage of keep the risk profile of a firm within a reasonable limit. Such a situation should also maximize return to shareholders.

## Answer to MTP\_Intermediate\_Syl2016\_June2018\_Set 2

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(d)

The Cost of Capital is very important in Financial Management and plays a crucial role in the following areas:

- (i) Capital budgeting decisions: The cost of capital is used for discounting cash flows under Net Present Value method for investment proposals. So, it is very useful in capital budgeting decisions.
- (ii) Capital structure decisions: An optimal capital is that structure at which the value of the firm is maximum and cost of capital is the lowest. So, cost of capital is crucial in designing optimal capital structure.
- (iii) Evaluation of final Performance: Cost of capital is used to evaluate the financial performance of top management. The actual profitability is compared with the actual cost of capital of funds and if profit is greater than the cost of capital the performance may be said to be satisfactory.
- (iv) Other financial decisions: Cost of capital is also useful in making such other financial decisions as dividend policy, capitalization of profits, making the rights issue, etc.