

M.Com. 3rd Semester Examination, 2019

ADVANCE MANAGEMENT ACCOUNTING

PAPER —COM-303

Full Marks : 40

Time : 2 hours

Answer all questions

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

UNIT — I

[Marks : 20]

1. Answer any two of the following questions : 2 × 2

(a) Mention two basic functions of Management Accounting.

- (b) What is pay-back period (PBP) ? State any one limitation of PBP method.
- (c) What do you understand by capital budgeting decision under risk and uncertainty ?
- (d) State any two limitations of Management Accounting.

2. Answer any *two* of the following questions : 4×2

- (a) What is net present value (NPV) of a project ? Examine whether the NPV method is a rational method for project selection.
- (b) With the help of a suitable diagram show how there might have a conflict between the NPV and IRR method in case of ranking of two projects.
- (c) Modern Synthetics Co. has planned to introduce computer system in its office. The estimated costs and benefits associated with this system are as follows :

Cost of computers along with the accessories	Rs. 1.2 million
Operating and maintenance cost	Rs. 0.25 million per annum
Savings in clerical cost	Rs. 0.6 million per annum
Savings in space cost	Rs. 0.1 million per annum

The computers would have an effective life of five years and those would be depreciated at a rate of 30% per year under diminishing balance method. After five years those would be disposed of for a value equal to their book value. The tax rate of the company is 25% and the required rate of return on investment is 12%.

Calculating net present value, evaluate whether the new proposal is acceptable.

- (d) Compare and contrast between certainty equivalent approach and risk-adjusted discount rate approach of capital budgeting under condition of risk and uncertainty.

3. Answer any *one* of the following questions : 8×1

(a) Rim Jhim Company is under capital rationing situation while considering the following nine investment projects. The estimated cash outflows and the net present values associated with the projects are given below (in Rs. Lakh) :

Project (X_j)	Net present value (NPV $_j$)	Cash flow in year 1 (CF $_{j1}$)	Cash flow in year 2 (CF $_{j2}$)
1	55	75	40
2	75	80	85
3	50	75	8
4	60	35	100
5	105	80	160
6	12	20	9
7	60	70	5
8	120	155	100
9	50	55	20

The budget constraints for year 1 and 2 are 370 and 320 respectively. The following project inter-dependencies exist :

1. Projects 3 and 7 are mutually exclusive;
2. Out of the set of projects 5, 8 and 9 at least two must be accepted;
3. Project 2 is prerequisite for project 6;
4. Project 5 can be delayed by one year. Such a delay would shift the cash outflows from first year to the second year and reduce the amount of NPV of the project by 10;
5. Projects 4 and 8 are complementary. If both are accepted together, the total cash outflows will be less by 8 per cent whereas the NPV will be more by 10 per cent.

Required :

- (i) Develop an integer linear programming formulation of the above capital rationing problem.
- (ii) Transform the program into 'Lingo' format for obtaining optimum solution.

4 + 4

- (b) A firm is considering a proposal to purchase a new machine, requiring an initial outlay of Rs. 1,500. The estimated cash inflows for the next three years from the machine are given below :

Year 1		Year 2		Year 3	
Cashflow	Prob.	Cashflow	Prob.	Cashflow	Prob.
800	0.1	800	0.1	1200	0.2
600	0.2	700	0.3	900	0.5
400	0.4	600	0.4	600	0.2
200	0.3	500	0.2	300	0.1

Cash flows of different years are assumed to be independent. Cost of capital is assumed to be 5%. From the above determine :

- (i) The E (NPV) of the project;
- (ii) The standard deviation of NPV of the project;

- (iii) The probability that the NPV will be (I) zero or less,, (II) at least equal to mean, (III) positive.

(All the figures are in Rs. '000; Given that

$$0 \leq Z \leq 0.6567 = 0.2454 \quad 3 + 3 + 2$$

UNIT – II

[Marks : 20]

4. Answer any *two* questions : 2 × 2
- (a) What do you mean by Profit Centre and Cost Centre ?
- (b) State the major considerations in Responsibility Accounting.
- (c) What do you mean by Financial Distress ?
- (d) State the objectives of inter-divisional transfer pricing.
5. Answer any *two* questions : 4 × 2
- (a) What do you mean by Shareholder Value Added ?

L & T Ltd. Provides you the following information as on 31st March 2019 :

Particulars	Rs. (in lakhs)
Share Capital	981.46
Reserve and Surplus	1313.62
Long Term Debt	144.44
Trade Payables	20.38

Additional information :

- (i) Profit before interest and tax is Rs. 2202.84 lakhs.
- (ii) Interest paid is Rs. 13.48 lakhs.
- (iii) Tax rate is 30%.
- (iv) Cost of equity is 12.42% and cost of debt is 6.53%.

Calculate Economic Value Added of L & T Ltd.

2 + 2

- (b) The manufacturer of Kurkure has two divisions, one producing the kurkure and

another packaging division that manufactures cartons. The production division purchases all the cartons from the packaging division. Cost of cartons from outside vendors would be :

Number of cartons	Rs.
5000	77000
8000	95000

Production cost incurred by the packaging division for similar volume of cartons :

Number of cartons	Rs.
5000	75000
8000	80000

The production and sale of the final product, kurkure are as below :

Volume (Number of cartons of Kurkure sold)	Total Cost (Excluding Cost of Cartons) Rs.	Sales Value (Packed in Cartons) Rs.
5000	120000	200000
8000	180000	300000

An appropriate transfer pricing policy is being framed. Calculate the transfer price based on shared profit relative to cost method and market price method. Also show the profitability of each division under both methods.

4

- (c) The following information relates to budgeted operations of Division A of a manufacturing company :

Particulars	Rs.
Sales (5000 units at Rs. 8)	400000
Less : Variable costs @ Rs. 6 per unit	300000
Contribution margin	100000
Less : Fixed costs	75000

The amount of divisional investments is Rs. 150000 and the minimum desired rate of return on the investment is the cost of capital of 20%.

Required :

- (i) Calculate divisional expected ROI.

- (ii) Calculate divisional expected RI.
- (iii) Comment on the result of (i) and (ii).
- (iv) Divisional manager has the opportunity to sell 10000 units at Rs. 7.50 per unit. Variable cost per unit would be the same as budgeted, but fixed costs would increase by Rs. 5000. Additional investment of Rs. 20000 would be required. If the manager accepts the special order, by how much and in what direction would his residual income change?

4

(d) Following are the information of A Ltd. for the year ended 31st March, 2019 :

- (i) Total Assets is Rs. 20,00,000.
- (ii) Total Liabilities is Rs. 12,00,000.
- (iii) Current Liabilities is Rs. 2,00,000
- (iv) Working Capital is Rs. 1,00,000.
- (v) Funds from operations is Rs. 5,50,000.

(vi) Net income :

2017 (Rs.)	2018 (Rs.)	2019 (Rs.)
130000	100000	175000

(vii) GNP price-level index is 18.12.

Calculate Ohlson's O-Score of the company and comment on the financial health of the company.

4

6. Answer any *one* question from the following : 8×1

(a) Write short notes on : $4 + 4$

(i) Performance Prism;

(ii) Merton Model for the prediction of financial distress.

(b) In Tamralipta Cotton Textile Mill, the spinning superintendent, weaving superintendent and the processing superintendent report to the Mill Manager who along with the Chief Engineer reports to Director (Technical). The sales manager along with

the publicity manager reports to Director (Marketing) who along with the Director (Technical) reports to the Managing Director. The following data have been extracted from the books for a particular period.

Particulars	Budget Rs.	Variance Rs.
Travelling Expenses	40000	2000 A
Publicity Department Salaries & Administration	120000	10000 A
Sales Commission	250000	10000 F
Spinning Department Labour	800000	40000 A
Weaving Department Labour	600000	20000 A
Raw Materials	2800000	120000 A
Process House Material	700000	60000 F
Maintenance Stores	200000	10000 F
Processing Department Labour	500000	12000 F
Maintenance Department Labour	260000	5000 F
Utilities – Spinning Department	150000	15000 A
– Weaving Department	200000	10000 F
– Processing Department	300000	50000 A
– Maintenance Department	50000	10000 A

Particulars	Budget Rs.	Variance Rs.
Weaving Materials	100000	5000 F
Sales Department Salaries & Administration	100000	5000 F
Publicity Expenses	200000	2000 F
Director (Technical) Office Salaries & Administration	175000	25000 A
Director (Marketing) Office Salaries & Administration	200000	10000 F
Managing Director's Office Salaries & Administration	250000	20000 A
Mill Manager's Salaries & Administration	100000	5000 A
Sales	10000000	1200000 A

*A = Advance, *F = Favourable

Prepare responsibility accounting reports for the Managing Director, Director (Marketing), Director (Technical) and Mill Manager.

8

[*Internal Assessment* : 10 Marks]