M.Com. 3rd Semester Examination, 2024

COMMERCE

PAPER – COM-305AF

Advanced Management Accounting

Full Marks : 50

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

PAPER – COM-305AF.1

[Marks : 20]

1. Answer any *two* of the following questions :

   5 × 2

   (*a*) "Modern development of Management Accounting reflects the evolving needs

of business in a dynamic and competitive environment". In the light of the above statement, briefly state some of the key advancements in Management Accounting.

(b) Suppose a firm is facing a capital rationing situation and is evaluating nine projects with the following characteristics :

(in Rs. Lakh)

Project (X_j)	Net present value (NPV_j)	Cash out flow in Yr. 1 (CF_{j1})	Cash out flow in Yr. 2 (CF_{j2})
1	44	50	48
2	30	40	22
3	28	20	40
4	25	36	15
5	35	25	60
6	24	43	15
7	42	25	15
8	28	33	14
9	60	55	48

The budget constraint to the firm for the first year is Rs. 145 lakh and in the second year is Rs. 165 lakh. The following project interdependencies exist :

1. Project 1 and 2 are mutually exclusive ;

2. Out of the set of projects 4, 5 and 6 at least two must be accepted ;

3. Project 9 cannot be accepted unless projects 4 and 6 are accepted ;

4. Projects 8 and 9 are complementary. If both are accepted together, the total cash outflows will be less by 5%, whereas the NPV will be more by 10%.

(*i*) Develop an integer linear programming formulation for the above problem.

(*ii*) Rewrite the formulation in 'Lingo' format.

$$2\frac{1}{2}+2\frac{1}{2}$$

(*Turn Over*)

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(c) With the help of a suitable diagram, demonstrate when NPV and IRR method may give contradictory result in case of ranking of two projects.

2. Answer any *one* of the following question :

10×1

(a) Delta Corporation is considering an investment proposal (the Delta Project), to expand one of its product lines. The project is planned to start at the beginning of the year 2025. Initial capital outlay of the project is Rs. 15,00,000. The economic life of the project is estimated as six years. The level of working capital requirements for the project in different years is tabulated below.

Year	0	1	2	3	4	5	6
Working Capital	20,000	25,000	31,000	36,000	40,000	30,000	0

(*Continued*)

Forecasted profit from the project before depreciation and taxes are :

Year	1	2	3	4	5	6
EBDIT	3,25,000	3,50,000	3,90,000	5,25,000	4,75,000	4,60,000

Assume that the company charges depreciation on its assets on straight line basis, the corporate tax rate is 25% and the marginal cost of capital is 12%. Evaluate the acceptability of the project by computing NPV. (Ignore scrap value of the assets, if any)

(b) (i) What do you understand by capital budgeting under risk and uncertainty? Compare between risk-adjusted discount approach (RADR) and certainty equivalent (CE) approach of capital budgeting under risk and uncertainty.

(ii) A company is going to manufacture a new product and for this purpose it is considering to purchase one of the two sophisticated machines. The cost of each machine is Rs. 8,00,000. The machines are expected to provide benefits over a period of four years after which the seller of the machines has promised to buy back the same at Rs. 1,00,000. The company normally uses certainty equivalent approach to evaluate the risky projects. The company's risk adjusted discount rate is 16% and the risk free rate is 8%.

The expected net cash inflows after taxes (CFAT) with their respective certainty equivalents (CE) are as under :

(Continued)

	Machine A		Machine B	
Year	CFAT	CE	CFAT	CE
1	4,00,000	0.8	2,80,000	0.9
2	4,00,000	0.7	4,60,000	0.8
3	4,00,000	0.6	3,40,000	0.7
4	4,00,000	0.5	3,20,000	0.4

Which machine, if either, should the company purchase ? $(2 + 3) + 5$

PAPER — COM-305AF.2

[Marks : 20]

3. Answer any *two* questions from the following :

5×2

(a) Write the seven causes of financial health deterioration of a company as posited by Mitroff (2001).

(b) PQR company has three divisions. The following information is given below :

Particulars	Division P	Division Q	Division R
Sales (Rs.)	5,00,000	(d)	(g)
Operating income (Rs.)	25,000	30,000	(h)
Operating assets (Rs.)	1,00,000	(e)	2,50,000
Turnover Ratio (Times)	(a)	(f)	0.4
Margin	(b)	0.4%	5%
ROI	(c)	2%	(i)

Required :

(i) Supply the missing data in the table above and summarise the results.

(ii) Comment on the relative performance of each division.

(*Continued*)

(c) Write notes on :

(i) Negotiated transfer prices

(ii) Market-based transfer prices.

4. Answer any *one* from the following question :

10 × 1

(a) Division R is a profit centre which produces three products A, B and C. Each product has an external market. The details are as follows :

Particulars	A	B	C
External market price per unit (Rs.)	48	46	40
Variable cost of production in division R (Rs.)	33	24	28
Labour hours required per unit in division R (Rs.)	3	4	2
Maximum external sales	800 units	500 units	300 units

Product B can be transferred to Division S, but the maximum quantity that might be required for transfer is 300 units of B.

(*Turn Over*)

Instead of receiving transfers of Product B from Division R, Division S could buy similar product in the open market at a slightly cheaper price of Rs. 45 per unit.

What should be the transfer price for each unit of B, if the total labour hours available in Division R are :

    (i)   3800 hours and

    (ii) 5600 hours ?   6 + 4

(b) Write short notes on :   5 × 2

    (i)   Responsibility Accounting

    (ii) Merton's market-based model for assessing corporate distress risk.

[Internal Assessment — 10 Marks]