2016

M. COM.

3rd Semester Examination

ADVANCED MANAGEMENT ACCOUNTING

PAPER — COM-305 (AF)

Full Marks : 50

Time : 2 Hours

The figures in the right-hand margin indicate full 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 : 2×5

(a) Define Management Accounting. Distinguish between Financial Accounting and Management Accounting. 1+4

(b) What do you mean by discount cash flow (DCF) method in capital budgeting ? State the assumptions of discounted cash flow (DCF) method. 1+4

(c) Ayaan & Co is considering an investment project with an initial outlay of Rs. 40,00,000. The forecast of cash flows are Rs. 2,50,000, Rs. 1,50,000 and Rs. 1,30,000 at the end of 1st year, 2nd year and 3rd year respectively.

Assume that the 10 year Government Bond rate is 9% and the estimated risk premium (a + u) of the project is 6%.

(i) Calculate the coefficient of certainty equivalent (CE) of the project for the three years.

(ii) Show that if the variable are correctly specified, the NPV under certainty equivalent approach is identical to NPV under risk-adjusted discount rate approach. 2+3

(d) What is NPV? Examine the rationality of NPV method of evaluating an investment project. 1+4

2. Answer any *one* of the following questions : 1×10

(a) Selection Company is evaluating the following nine projects under capital rationing. The projects are interdependent in several ways. The characteristics of the projects are given below :

[All the figure are in Rs.'000]

Project (X_j)	*Net present value* (NPV_j)	*Cash flow in period 1* (CF_{j1})	*Cash flow in period 2* (CF_{j2})
1	24	30	28
2	33	40	25
3	20	10	40
4	25	36	10
5	35	25	55
6	24	40	15
7	38	38	0
8	28	32	16
9	60	65	48

The budget constraint to the firm for the first year is 135 and in the second year 150. The following project interdependencies exist :

(i) Projects 1 and 2 are mutually exclusive. But out of the two projects the company must have to select one ;

(ii) Out of the set of projects 4, 5 and 6 at least two must be accepted ;

(iii) Project 9 cannot be accepted unless project 4 and 6 are accepted ;

(iv) Project 7 can be delayed by one year. Such a delay would not change the cash outflows but will reduce its NPV to 32 ;

(v) Projects 8 and 9 are complementary. If both are accepted together, the total cash outflows will be less by 5 percent, whereas the NPV will be more by 8 percent.

Required :

(i) Develop an integer liner programming formulation of the above problem.

(ii) Write the Syntax in *Lingo 13.0* Software for finding the optimum solution of the above problem. 6+4

(b) (i) Narrate briefly the Markowitz's Mean-Variance rule for selecting capital projects under uncertainty.

(ii) Choosy Company is considering two mutually exclusive projects A and B. Both the projects are risky because its cash flows are uncertain. However, the company has computed expected NPV and standard deviation of NPV of both the projects, applying some probability measure. Select the better one in each of the following cases, giving the appropriate reason :

(A)

	Project A	Project B
E (NPV)	Rs. 6,00,000	Rs. 6,00,000
S D (NPV)	Rs. 5,40,000	Rs. 4,50,000

(B)

	Project A	Project B
E (NPV)	Rs. 4,00,000	Rs. 5,00,000
S D (NPV)	Rs. 2,50,000	Rs. 4,50,000

(C)

	Project A	Project B
E (NPV)	Rs. 4,00,000	Rs. 5,00,000
S D (NPV)	Rs. 6,00,000	Rs. 7,50,000

(iii) Write down the limitation of Risk-adjusted discount rate approach for selecting capital projects under uncertainty. 2+(2×3)+2

Unit—II

[*Marks : 20*]

3. Answer any *two* of the following questions : 2×5

(a) Briefly discuss the role of cost centre and Profit Centre as a part of responsibility centre.

(b) Examine the Return on Investment (ROI) method in divisional performance measurement.

(c) A company with two manufacturing divisions is organised on profit centre basis. Division 'A' is the only source for the supply of a component that is used in Division B in the manufacture of a product Keo Karpin. One such part is used in each unit of the

product 'Keo Karpin'. As the demand for the product is not steady, Division B can obtain orders for increased quantities only by spending more on sales promotion and reducing the selling prices. The Manager of Division B has accordingly prepared the following forecast of sales quantities and selling prices.

Sales in Units per day	Average selling price per unit Keo-Karpin
1,000	5·25
2,000	3·98
3,000	3·30
4,000	2·78
5,000	2·40
6,000	2·01

The manufactring Cost of Keo-Karpin in Division B is ₹ 3,750 for first 1,000 units and ₹ 750 per 1,000 units in excess of 1,000 units.

Division A incurs a total cost of ₹ 1,500 per day for an out put upto 1,000 components and the total cost will increase by ₹ 900 per day for every additional 1,000 components manufactured. The Manager of Division A states that the

operating results of the division will be optimised if the transfer price of the component is set at ₹ 1·20 per unit and the has accordingly set the aforesaid transfer price for his supplies of the Component Division A. You are required to prepare a schedule showing the profitability at each level of output for division A and Division B.

(d) Using Altman's function calculate Z score is cose of Ghosh & Brothers Company Ltd. and interpret the result. The important accounting ratios of the company are as follows :

Current ratio	2·5
Sales Total Assets ratio	1·5
Fixed expenses to sales ratio	0·15
Working capital to Total Assets	0·30
Retained Earnings to Total Assets Ratio	0·35
Fixed Asset to longterm fund	0·80
EBTT to Total Assets ratio	0·15
Rate of return on capital employed	0·45
Market value of Equity to Book Value of Total Debt ratio.	0·8

4. Answer any *one* of the following question : 1×10

(a) K Ltd. has three Production Department namely Machine Shop, Fabrication and Assembly which are the responsibility centres of the shop superintendent.

Material Manager, Planning superintendent and Maintenance Engineer report to the Works Manager at the factory. The office administration, sales and publicity come under the Sales Manager, who along with the Works Manager report to the Managing Director of the Company. The following data relating to a month's performance are called out from the books of the company.

Items	*Budget* ₹	*Variance from Budget* ₹
Sales Commission	800	50 (A)
Rawmaterial Consumptions :		
Machine shop	900	20 (A)
Assembly	760	40 (A)
Fabrication	460	10 (A)
Printing & Stationary	3,200	200 (F)
Wages :		
Machine shop	800	10 (F)

Items	*Budget* ₹	*Variance from Budget* ₹
Fabrication	600	20 (A)
Assembly	720	10 (A)
Utilities :		
Machine shop	320	10 (A)
Assembly	470	10 (A)
Fabrication	560	60 (F)
Maintenance	400	20 (A)
Stores	210	40 (F)
Depeciation :		
Factory	3880	40 (A)
General office Salaries and Administration	4270	30 (A)

Required :

(i) Treating the Machineshop, Factories and Assesmbly as Cost Centres, prepare Cost Sheets for each centre with the help of this a additional information : Factory overhead is absorbed on the basis of direct labour in each Cost Centre. Office Administration, selling and Distribution over heads are borne equally by the Cost Centres.

(ii) Treating the Machine shop, Fabrication and Assemble as Responsibility Centres parepare a Responsibility Accounts Report.

6+4

(b) Discuss the nature and causes of industial sickness in India.

[Internal Assessment : 10 Marks]
