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0504N89

Candidate's Seat No :_____

M.Com. HPP (AAA) Semester-4 Examination

CC-19

Management Accounting-II

April-2024

Time : 2-30 Hours] **[Max. Marks : 70**

Q.1

Nuri Limited is planning to purchase of a fully automatic machine which will carry out same operations which are at present performed semi-automatic machine. AM_1 and AM_2 two alternative models are available in the market. The following details are collected:

	Machine	
	AM_1	AM_2
Cost of Machine (₹)	40,00,000	50,00,000
Estimated working life	5 Years	5 Years
Estimated saving in direct labour per annum (₹)	14,00,000	18,00,000
Estimated saving in material per annum (₹)	1,20,000	2,00,000
Estimated additional cost of indirect material per annum (₹)	1,50,000	3,50,000
Estimated additional cost of indirect labour per annum (₹)	80,000	1,00,000

Company will charge depreciation on a straight-line method basis. Corporate tax rate is 30 percent and the minimum expected rate of return from the project will be 12 percent. You are required to evaluate the alternatives by calculating the:

(1) Pay-back period
(2) Account (Average) Rate of Return
(3) Net Present Value
(4) Profitability Index

P.V. factor for ₹1 @ 12%

Year	0	1	2	3	4	5
Present value	1	0.893	0.797	0.712	0.636	0.567

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OR

Q.1

PR Ltd. has to make a choice between three identical machines in terms of capacity, X, Y and Z.

Further details are as under:

(i) Machine X is an economy model costing only ₹5,00,000, but will last only for 2 years. It costs ₹ 3,00,000 p.a. to run and maintain.
(ii) Machine Y cost ₹ 7,50,000 and will last for 3 years. It costs ₹ 2,00,000 p.a. to run and maintain.
(iii) Machine Z cost ₹ 15,00,000 and will last for 4 years. It costs ₹ 3,00,000 p.a. to run and maintain.
(iv) The above given cash flows are the real cash flows. The nominal rate is 15.5%. The inflation rate is 5%.

P.T.O.

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Ignore taxes.

PV factors are given below:

Discounting Rate	PVAF (1-2) years	PVAF (1-3) years	PVAF (1-4) years
15.5%	1.6154	2.2644	2.8263
10%	1.7355	2.4868	3.1699

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Q.2

Sun Ltd. is contemplating the proposal of buying one of the two machines. Each of these machines requires an investment of ₹ 4,00,000 and is expected to provide benefits over a period of 4 years. The management of the company uses certainty-equivalent (CE) approach to evaluate risky investment. The company's risk adjusted discount rate is 15 percent and the risk-free rate is 8 percent. The expected values of net cash flows (CFAT) with their respective CE are:

	Machine P		Machine Q	
Year	CFAT (₹)	CE	CFAT (₹)	CE
1	2,40,000	0.8	1,44,000	0.9
2	2,40,000	0.7	2,88,000	0.8
3	2,40,000	0.6	1,92,000	0.7
4	2,40,000	0.5	2,56,000	0.4

(i) From the above, which machine should be purchased by the Company?

(ii) If RADR method is used, which project would be apprised with a higher rate and why?

(iii)P.V. factor for ₹1

Year	0	1	2	3	4
Present value@ 8%	1	0.926	0.857	0.794	0.735
Present value@ 15%	1	0.870	0.756	0.658	0.572

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OR

Q.2

From the following information of projects under consideration of Rama Ltd., determine risk adjusted net present value of:

Particulars	**P**	**Q**	**R**
Initial outflow of the project (₹)	10,00,000	11,60,000	13,20,000
Expected Project life	6 years	6 years	6 years
Annual cash inflows (₹)	2,80,000	3,80,000	4,80,000
Coefficient of Variation (C.V.)	0.3	0.7	1.1

The company selects appropriate Risk Adjusted discount rate (RADR) based on coefficient of variation.

Risk Adjusted discount rate (RADR)	Present value factor 1 to 6 years
15%	3.7844
13%	3.9976
11%	4.2305

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Q.3
Calculate missing figures in following table for Tarak Ltd.:

Particulars	Division – Q	Division – R	Division – P
Sales (₹)	72,00,000	96,00,000	57,60,000
Operating Assets (₹)	(?)	48,00,000	28,80,000
Operating Income (₹)	24,00,000	(?)	(?)
ROI (%)	10 %	20 %	15 %
Minimum Required Rate of Return	(?)	(?)	10 %
Residual Income	4,80,000	NIL	(?)

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OR

Q.3
(A) Explain Profit centre and Investment centre. **7**
(B) Explain Limitations of Responsibility Accounting. **7**

Q.4
Division Aman is a profit centre, which produces four products P, Q, R and S. Each product is sold in the external market also. Data for the period 2023-24 is as follows:

	P	Q	R	S
Market Price per unit (₹)	350	345	280	230
Variable Cost of Production per unit (₹)	330	310	180	185
Labour hours required per unit	3	4	2	3

Product S can be transferred to Division Baman but the maximum quantity that might be required for transfer is 2,000 units of S.
The maximum sales in the external market are:

P	3,000 units
Q	3,500 units
R	2,800 units
S	1,800 units

Division Baman can purchase the same product at a slightly cheaper price of ₹ 225 per unit instead of receiving transfers of products S from Division Aman.
What should be transfer price for each unit for 2,000 units of S, if the total labour hours available in Division Aman are 24,000 hours. **14**

OR

Q.4
(A) Explain the Methods of Transfer Prices? **7**
(B) Explain the criteria for setting Transfer Pricing? **7**

Q.5 Select the appropriate alternative: **(Attempt any Seven out of given)** **14**

(1) Higher Coefficient of Variation indicates_____
(A) Higher Risk
(B) Lower Risk
(C) Moderate Risk
(D) None of the above

P.T.O

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(2) Higher the discount Rate, _____the Profitability Index (PI).
(A) higher
(B) lower
(C) same
(D) None of the above

(3) PI=1, indicates
(A) Negative NPV
(B) Positive NPV
(C) Zero NPV
(D) None of the above

(4) Which of the following factor is not non-financial factor in the context of capital budgeting?
(A) Organizational behaviour
(B) Human and social factors
(C) Technical issues
(D) Depreciation and taxes

(5) Which pricing approach is useful when the selling division is operating below capacity?
(A) Variable cost
(B) Standard cost
(C) Actual full cost
(D) None of the above

(6) In certainly equivalent approach, _____
(A) Elimination of uncertainly from cash flow
(B) Expected cash flow is converted to equivalent risk-free amount
(C) (A) and (B)
(D) None of these

(7) The basic purpose of a responsibility accounting system is
(A) Budgeting
(B) Motivation
(C) Authority
(D) Variance analysis

(8) The term mutually exclusive investments mean:
(A)Choose only the best investments
(B) Selection of one investment precludes the selection of an alternative
(C) The elite investment opportunities will get chosen
(D)There are no investment options available

(9) Which method of transfer pricing is used if both divisions are free to deal either with each other or in the external market?
(A) Negotiated prices
(B) Cost based prices
(C) Market prices
(D) Dual prices

(10) Which of the following indicate cash flow?

(A) Profit after taxes
(B) Profit after tax + depreciation
(C) Profit before tax - depreciation
(D) None of the above

(11) A strategic business unit (SUB) is defined as a division of an organization:

(A) that help in the marketing operation
(B) that enable managers to have better control over the resources
(C) that help in the choice of technology
(D) that helps in the allocation of scarce resources

(12) Performance evaluation under market price is considered _____ performance evaluation.

(A) Poor
(B) Average
(C) Strong
(D) Very strong