

Seat No. : _____

1

AH-108

April-2017

M.Com., Sem.-IV

508 : Risk Management

Time : 3 Hours]

[Max. Marks : 70

Instructions : (1) All questions are compulsory.
(2) Figures to the right indicate marks allotted each questions.

1. (A) Explain the methods of handling risk.

OR

Explain the role of risk manager.

(B) Answer briefly : (any two)

- (i) State the objectives of risk management.
- (ii) State the nature of risk management.
- (iii) State the classification of risks.

(C) Distinguish between :

- (i) Risk and Hazard
- (ii) Risk and Uncertainty
- (iii) Risk and peril

3

2. (A) How can risk be identified ?

OR

How can risk be controlled ?

(B) Answer briefly : (any two)

- (i) What is risk exposure ?
- (ii) What is probable maximum loss ?
- (iii) What is risk evaluation ?

(C) Answer in one – two sentences only :

- (i) What is severity of losses ?
- (ii) What is optimal loss control ?
- (iii) What is contingency planning ?

7

4

3. (A) Explain the techniques of risk financing.

OR

Explain benefits and limitations of insurance as a risk transfer tool.

(B) Answer briefly : (any two)

- (i) State internal factors affecting risk financing.
- (ii) What are pooling arrangements ?
- (iii) What is risk transfer ?

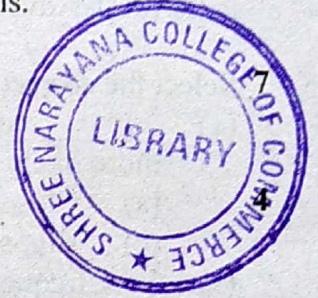
(C) Answer in one – two sentences only :

- (i) What is transfer of activity ?
- (ii) What is risk avoidance ?
- (iii) State one statutory provision on risk control.

7

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2

4. (A) Explain the determinants of retention policy.

OR

Explain the benefits of risk retention.

(B) Answer briefly : (any two)

- (i) What is risk retention ?
- (ii) What is optimal retention ?
- (iii) What is aggregated risk management ?

(C) Distinguish between :

- (i) Personal and corporate risk management.
- (ii) Risk retention and risk financing.
- (iii) Adverse selection and moral hazard.

5. Select the correct option :

- (1) _____ companies are more likely to retain risks and _____ companies are more likely to buy insurance.
 - (a) Closely-held, widely-held
 - (b) Widely-held, closely-held
 - (c) Big, small
 - (d) Big, medium
- (2) Low frequency low severity risks are better to _____ while low frequency high severity risks are better to _____.
 - (a) retain, transfer
 - (b) transfer, retain
 - (c) retain, finance
 - (d) finance, retain
- (3) Loss financing through contingency funds is more applicable for _____ and _____ losses.
 - (a) large, unpredictable
 - (b) small, predictable
 - (c) large, predictable
 - (d) small, uncertain
- (4) _____ severity and _____ frequency losses are ideal for insurance.
 - (a) High, low
 - (b) Low, high
 - (c) Medium, high
 - (d) High, medium
- (5) Use of circuit breakers on electrical lines is loss _____ measure and making the use of helmets compulsory for two wheelers is loss _____ measure.
 - (a) minimization, prevention
 - (b) prevention, minimization
 - (c) retaining, controlling
 - (d) controlling, retaining
- (6) Risk control is ideal strategy for risks with _____ frequency and _____ severity factors.
 - (a) low, high
 - (b) high, low
 - (c) low, medium
 - (d) medium, medium
- (7) _____ in India is a classic example of risk avoidance.
 - (a) Agriculture
 - (b) Insurance
 - (c) Outsourcing
 - (d) Financing



3

Seat No. :



AJ-111

April-2017

M.Com., Sem.-IV

509-EA/ED/EE : International Accounting

Time : 3 Hours]

[Max. Marks : 70

1. Attempt any **two** : 14
- (a) Define International Accounting. How would you identify the concept of International Accounting ? Discuss.
- (b) Discuss about scope of International Accounting.
- (c) How would you distinguish between Domestic and International Accounting ? Explain.
2. Attempt any **two** : 14
- (a) What is Convergence ? Explain meaning and scope of IFRs.
- (b) Discuss benefits and limitations of convergence.
- (c) Describe the status of Accounting Standards and IFRs in India.
3. (a) What is currency translation ? Why currency translation is needed for International Accounting ? Explain. 4
- (b) Bharat Co. Ltd. is an Indian Company has purchased X equipment from Australian company. As per agreement payment was to be made in instalments in the form of Australian dollars. 10
- Transitions were as follows :
- (i) Date of purchase 1-10-2016
- (ii) Cost price AS \$ 1,00,000
- (iii) Four equal instalments and first instalment was paid on 31-10-2016.
- (iv) All instalments were paid.
- (v) Different exchange rates :

Dates	Exchange Rates
01-10-16	AS \$1 = INR 65
31-10-16	AS \$1 = INR 65.50
30-11-16	AS \$1 = INR 65.40
31-12-16	AS \$1 = INR 65.50
31-01-17	AS \$1 = INR 64.30

Prepare Australian Company's Account.

OR



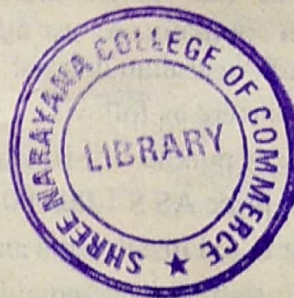
3. Gujarat Ltd. has its branch in New Zealand. Following are Trial Balances of Head Office and Branch as at 31-3-2017.

14

Debit Balances	HO INR	Branch NZD	Credit Balances	HO INR	Branch NZD
Branch Account	3,37,500	-	Head Office Account	-	7,500
Cash Remitted to HO	-	3,000	Cash Received from Branch	1,38,000	-
Fixed Assets	4,00,000	-	Goods sent to Branch	2,79,000	-
Debtors	80,000	2,000	Sales	5,50,000	19,000
Opening Stock	30,000	500	Capital	2,64,500	-
Goods received from HO	-	6,000	Creditors	36,000	1,000
Purchases	3,50,000	12,000			
Wages	30,000	1,500			
Salary	25,000	1,500			
Cash	15,000	1,000			
	12,67,500	27,500		12,67,500	27,500

Additional Information :

- (1) Closing Stock HO INR 1,50,000
BR NZD 1,000
- (2) Rate of depreciation 10%
- (3) Exchange rates :
 - (i) Opening 1NZD = INR 45
 - (ii) Closing 1NZD = INR 46
 - (iii) Average 1NZD = INR 45.50



- Prepare :
- (1) Translated Trial Balance of Branch.
 - (2) Final Accounts of HO incorporating accounts of Branch.

4. Explain meaning of Inflation Accounting and also explain different types of price changes. Discuss imports if distorted profit.

14

OR

5

4. Following are Balance Sheets of H Co. Ltd. and its American subsidiary S. Co. Ltd. as at 31-3-2017.

Liabilities	H. Co. ₹	S. Co. \$	Assets	H. Co. ₹	S. Co. \$
Equity Share Capital (Share of ₹ 100 and \$ 100 each)	40,00,000	40,000	Land & Building	40,00,000	60,000
General Reserve	8,00,000	8,000	Plant & Machinery	8,00,000	20,000
P & L Account	4,80,000	16,000	Investments in S. Co. (80% in equity of S. Ltd.)	21,00,000	-
Capital Reserve	2,00,000	-	Other investments	1,00,000	1,000
10% Debentures	10,00,000	20,000	Stock	4,00,000	20,000
Creditors	6,00,000	10,000	Debtors	2,00,000	6,000
Bills payable	4,00,000	10,000	Bank Balance	2,80,000	3,000
BOD	4,00,000	6,000			
	78,80,000	1,10,000		78,80,000	1,10,000

Additional information :

- (1) On 1-7-2016 H Co. Ltd. had acquired shares of S Co. Ltd. On that date S. Co. Ltd. had credit balance of General Reserve and P & L A/c. of \$ 2000 and \$ 6000 respectively.
 - (2) S. Co. Ltd. paid dividend @ 10% for the year 2015-16, which was credited by H Co. Ltd. in its P & L A/c. On this date exchange rate was \$ 1 = INR 66.
 - (3) Other Exchange Rates :
 Opening \$1 = INR 66
 Closing \$1 = INR 67
 Average \$1 = INR 66.5
- Prepare Consolidated Balance Sheet of H Co. Ltd.



5. Select appropriate answer for each question.

- (1) International Accounting has relation with
 - (a) Translation problem
 - (b) MNCs
 - (c) Global Economy
 - (d) All of the above
- (2) Which of the following is correct for International Accounting ?
 - (a) Principles and conventions are same across the world.
 - (b) Statutory bodies are same.
 - (c) Professional bodies are same.
 - (d) All of the above.
- (3) In which year Financial Accounting Standard Board was established ?
 - (a) 1971
 - (b) 1972
 - (c) 1973
 - (d) 1974
- (4) In present time convergence means
 - (a) Implementation of International Accounting Standards
 - (b) Implementation of Domestic Accounting Standards
 - (c) Implementation of IFRs
 - (d) All of the above

6

- (5) Currency translation is useful for
(a) Consolidation of Accounts (b) Computation of gain/loss
(c) True and Fair presentation (d) All of the above
- (6) The important reason of origin of translation problem is
(a) Bimetallism (b) Gold Standards
(c) Bretton Wood System (d) Flexible Exchange Rate
- (7) Which of the following is not correct for International Accounting ?
(a) Import transactions in Local currency
(b) Export transactions in Foreign currency
(c) Local transactions in Foreign currency
(d) None of the above
- (8) When production is not commenced, exchange rate differences on interest payment will be recorded to which account ?
(a) To P & L A/c.
(b) Will be added to historical cost.
(c) Will be treated as expenses not written off.
(d) None of the above.
- (9) Which exchange rate will be applicable to fixed assets at the time of preparation of translated Trial Balance of foreign branch ?
(a) That exchange rate when assets were acquired.
(b) Closing exchange rate.
(c) Opening exchange rate.
(d) Average exchange rate.
- (10) Which method of consolidation is used for accounts of holding company and subsidiary company ?
(a) Line by line consolidation method.
(b) Equity consolidation method.
(c) Prorata consolidation method.
(d) None of the above.
- (11) Inflation Accounting has basic objection against
(a) stable money value (b) consistency
(c) comparability (d) All of the above
- (12) Average change in prices of all commodities is
(a) General price change. (b) Specific price change.
(c) Relative price change. (d) Average price change.
- (13) Gearing adjustment means
(a) $\cos A + DA + MWCA - \text{Gearing percentage}$
(b) $\cos A + DA + MWCA + \text{Gearing percentage}$
(c) $\cos A + DA + MWCA + \text{Gearing percentage}$
(d) None of the above
- (14) Pre acquisition profit always helps
(a) to reduce the value of goodwill.
(b) to increase the value of Capital Reserve.
(c) Both (a) and (b).
(d) to increase the value of General Reserve.



7



Seat No. : _____

AL-111

April-2017

M.Com., Sem.-IV

510 EE : Management Accounting

Time : 3 Hours]

[Max. Marks : 70

1. The management of P limited is considering selecting a machine out of two machines. The company's cost of capital is 12% and tax-rate is 30%, other information is as follows : 14

	Machine-I	Machine-II
Cost of Machine	₹ 10,00,000	₹ 15,00,000
Expected life	5 years	6 years
Annual income before tax and depreciation	₹ 3,45,000	₹ 4,55,000

Depreciation is to be charged on straight line method.

You are required to :

- (i) Calculate discounted pay-back period, Net-present value and internal rate of return for each machine.
- (ii) Advise the management as to which machine they should take-up.

The present value factors of ₹ 1 are as follows :

Year	1	2	3	4	5	6
12%	0.893	0.797	0.712	0.636	0.567	0.507
13%	0.885	0.783	0.693	0.613	0.543	0.480
14%	0.877	0.769	0.675	0.592	0.519	0.456
15%	0.870	0.756	0.658	0.572	0.497	0.432
16%	0.862	0.743	0.641	0.552	0.476	0.410

OR

- (a) Explain how discounted cash flow methods are superior over pay-back period method of capital budgeting. 7
- (b) Discuss Terminal value method. 7

2. Attempt any two :

- (a) Explain Decision Tree analysis.
- (b) From the following data, state which project is better :

Project	A	B
Cash flows	₹	₹
Year 0	-10,000	-10,000
1	4,000	5,000
2	4,000	6,000
3	2,000	3,000



14

AL-111

5

P.T.O.

Riskless discount rate is 5%, Project-A is less risky as compared to Project-B :
The management considers risk premium rates at 5% and 10% respectively for Project A & B for discounting the cash inflow. The present value factor of ₹ 1 are as follows :

Year	1	2	3
5%	0.952	0.907	0.864
10%	0.909	0.826	0.751
15%	0.870	0.756	0.658

- (c) Q. Ltd. is considering one of two proposals, Project M and N, which require cash outlays of ₹ 8,50,000 and ₹ 8,25,000 respectively. The current yield on Government bond is 6% and it is used as risk free rate. The expected net cash flows and their certainty equivalents are as follows :

Year End	Project M		Project N	
	Cash flow (₹)	C.E.	Cash flow (₹)	C.E.
1	4,50,000	0.8	4,50,000	0.9
2	5,00,000	0.7	4,50,000	0.8
3	5,00,000	0.5	5,00,000	0.7

Present value factors of ₹ 1 discounted at 6% at the end of year 1, 2 and 3 are 0.943, 0.890 and 0.840 respectively.

You are required to guide the management about which project should be accepted.

- (d) Explain Sensitivity Analysis.

3. (a) Divisions X and Y are currently considering an outlay on new investment project. 7

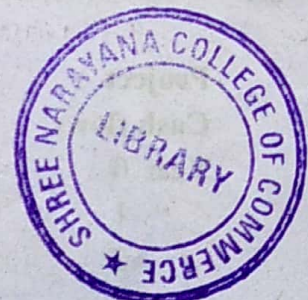
	Division-X	Division-Y
Investment outlay	₹ 2,00,000	₹ 2,00,000
Net Annual Return	₹ 32,000	₹ 22,000
Target ROI	18%	11%

The groups cost of capital is 13%. Which projects should be accepted or rejected using ROI and RI.

OR

What is Responsibility Accounting ? Explain Responsibility centres in detail.

- (b) Attempt any two : 4
- Explain advantages of Responsibility Accounting.
 - Explain Residual Income Method.
 - Discuss limitations of ROI.
- (c) Answer the following : 3
- Define Responsibility Accounting.
 - What is Divisionalisation ?
 - State limitations of Responsibility Accounting.



4. A company has two divisions, Division A & B. Division A has a budget of selling 2,00,000 units of a component X to fetch a return of 20% on the average assets employed. The following information of Division A is given :

14

Particulars	₹
Fixed Overheads	5,00,000
Variable cost	₹ 1 per unit
Average Assets – Debtors	2,00,000
Inventories	5,00,000
Plant	5,00,000

However there is constraint in marketing and only 1,50,000 units of the component X can be directly sold to market at the proposed price. Consequently, Division B is advised to buy 50,000 units of Component X. A wants a price of ₹ 4 per unit but B is prepared to pay ₹ 2 per unit of X.

Division A has another option on hand, which is to produce only 1,50,000 units of component X. This will reduce the holding of assets by ₹ 2,00,000 and fixed overheads by ₹ 25,000. You are required to advise the most profitable course of action for division A.

OR

- (a) Define Transfer pricing. Explain objectives of transfer pricing. 7
 (b) Explain market price method of transfer pricing. 7

5. Choose the correct option :

- (1) Division under transfer pricing system is treated as 14
 (a) Cost centre (b) Investment centre
 (c) Profit centre (d) None of these
- (2) Popular method of transfer pricing is
 (a) Cost based pricing (b) Market based pricing
 (c) Negotiated pricing (d) Opportunity cost pricing
- (3) Responsibility accounting is a part of
 (a) Global responsibility system (b) External reporting system
 (c) Internal reporting system (d) Corporate reporting system
- (4) Profit centre is responsible for maximizing
 (a) Profit of the organisation (b) Profit of the centre
 (c) Profit of product (d) None of the above
- (5) Depreciation is included in cost in case of
 (a) Pay-back method (b) IRR method
 (c) Accounting Rate of Return method (d) None of the above

10

- (6) Sensitivity analysis provides a single estimate of future return from project
(a) True (b) False
- (7) Probability means the likelihood of happening an event
(a) True (b) False
- (8) Transfer pricing is concerned with
(a) Inter-organisational transfer
(b) Intra-divisions of an organisation
(c) Both of the above
(d) None of the above
- (9) Which of the following factor is not non-financial factor in capital budgeting ?
(a) Organisational behaviour (b) Human and Social factor
(c) Technical issues (d) Depreciation and taxes
- (10) A company's ROI would generally increase when
(a) Assets increase (b) Selling price decrease
(c) Costs decrease (d) Costs increase
- (11) Under _____ method of pricing, two separate transfer pricing methods are used.
(a) Negotiated Transfer Price (b) Dual Pricing
(c) Market Price Method (d) Total Cost Method
- (12) IRR is
(a) Cut-off Rate (b) Hurdle Rate
(c) WACC (d) All of the above
- (13) Under which method cash flow of each year is re-invested ?
(a) Net Present Value (b) Terminal Value
(c) Pay-back Period (d) Internal Rate of Return
- (14) Higher the discount Rate, _____
(a) lower the present value (b) higher the present value
(c) no relation with present value (d) None of these



11

Seat No. : _____

AN-101

April-2017

M.Com., Sem.-IV

511 EA/ED/EE – International Accounting (Essay)

Time : 3 Hours]

[Max. Marks : 70

1. What do you know about International Accounting ? What is the territory of International Accounting ? Discuss in details. How and to whom International Accounting is useful ? Explain. Undertake comparison between International Accounting and Domestic Accounting. 35

OR

What do you know about Accounting standards, International Accounting Standards and International Financial Reporting Standards ? Discuss scope of International Financial Reporting Standards. Explain advantages and challenges of convergence at International level.

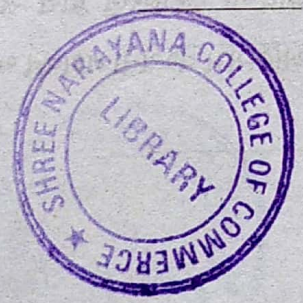
2. Discuss and distinguish between all methods of consolidation of accounts in detail with illustration. 35

OR

Explain integral and non integral operations. How would you incorporate accounts of Foreign branch with the accounts of head office. Explain this with all provisions and illustration.

OR

Explain different methods of Inflation Accounting with illustration. Distinguish between the Restate translate approach and Translate and restate approach.



12

Seat No. : _____

AP-101

April-2017

M.Com., Sem.-IV

512 EE : Management Accounting (Essay)

Time : 3 Hours]

[Max. Marks : 70

1. (a) What is Capital Budgeting ? Discuss importance of capital budgeting. Explain net present value, profitability index and internal rate of return method of capital budgeting with example. 25
- (b) Explain characteristics of capital budgeting. How would you determine cash inflow and cash outflow ? 10

OR

- (a) Explain sensitivity analysis, certainty equivalent approach and decision tree analysis methods of capital budgeting under risk and uncertainty. 25
- (b) Discuss impact of inflation on capital budgeting. 10
2. What is responsibility accounting ? Explain various responsibility centres. Discuss methods of divisional performance measurement in detail. 35

OR

What is transfer pricing ? Discuss its objectives and importance for business. Discuss various methods of transfer pricing in detail.



Seat No. : _____

13

AF-108

April-2017

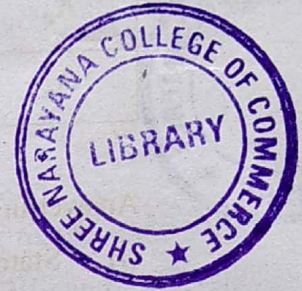
M.Com., Sem.-IV

507 – Operational Research (Stat.)

Time : 3 Hours]

[Max. Marks : 70

- Instructions :**
- (1) All questions carry equal marks.
 - (2) Use of calculator is permitted.



7

1. (a) What is O.R. ? Explain its phases in detail.

OR

A dealer has to decide the number of units to be stocked.

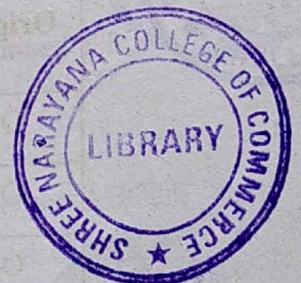
The cost price per unit of the item is ₹ 30 and its selling price during the season is ₹ 40. If a unit is not sold during the season it is to be kept until the next season and the inventory cost per unit is ₹ 1. The selling price of such item is ₹ 28 per unit in next season. If the probability distribution of the demand of the units is as follows, find the number of units to be stocked and find EVPI also.

Demand units	20	30	40	50	60
Probability	0.1	0.2	0.4	0.2	0.1

- (b) Determine the best act for the following pay-off matrix by applying

- (1) Maxi-Max Principle
- (2) Maxi-Min Principle
- (3) Hurwitz's Principle (Where $1 - \alpha = 0.6$)
- (4) Laplace Principle

4



P.T.O.

AF-108

9

14

Act	Events			
	S ₁	S ₂	S ₃	S ₄
A ₁	-60	-30	20	50
A ₂	-10	-70	-20	70
A ₃	00	100	150	50
A ₄	-20	150	100	120
A ₅	-150	-100	-50	-20

OR

Answer in short :

- (i) State (any two) difference between deterministic model and probabilistic model.
- (ii) State (any two) difference between EMV and EVPI.
- (c) Define :
 - (i) Iconic Models
 - (ii) Verbal models
 - (iii) Dynamic models

3

2. (a) Find x_1 and x_2 such that $z = 6x_1 + 18x_2$ is maximum under the following constraints by using Simplex method :

$$2x_1 + 8x_2 \leq 16, 2x_1 + 4x_2 \leq 8, x_1, x_2 \geq 0$$

7

OR

Find the following transportation problem by using Vogel's method. Also find the optimum solution.

Origins	Destinations				Supply
	D ₁	D ₂	D ₃	D ₄	
O ₁	5	6	4	7	50
O ₂	4	7	8	4	70
O ₃	2	5	2	3	80
Demand	50	40	90	20	-

AF-108

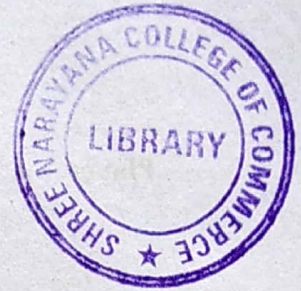
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(b) Solve the following assignment problem to maximize the total profit :

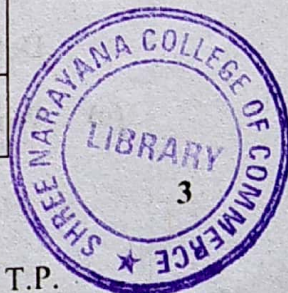
$O_i \backslash D_j$	D_1	D_2	D_3
O_1	15	18	19
O_2	16	17	17
O_3	17	17	17
O_4	19	15	16



OR

Five operators are to be assign five machines. The following matrix shows the cost. Operator 'I' cannot operate machine 'C', and operator III cannot operate machine 'D'. Find optimal assignment of the following problem :

Operator	Machines				
	A	B	C	D	E
I	17	19	-	14	18
II	19	16	14	15	16
III	21	15	17	-	15
IV	19	14	18	19	14
V	18	17	19	21	13



(c) Answer the following questions :

(i) State the main difference between unbalanced T.P. and balanced T.P.

(ii) What is Degeneracy in Transportation problem ?

(iii) By drawing the graph of linear inequalities, the convex polygon ABCDE is obtained. The vertices of it is A(0, 2), B(0, 4), C(2, 4), D(10, 0), E(2, 0). Find x and y such that the profit $z = 2x + 2y$ is maximum.

16

3. (a) Find out the solution of the following game :

7

		Player - B			
		B₁	B₂	B₃	B₄
Player - A	A₁	8	7	6	1
	A₂	15	7	8	1
	A₃	-1	4	3	4



OR

There are five jobs to perform, each of should go through two machines X and Y in order XY. The processing time (in hours) has been given as under. According to that find out the optimal sequence in which jobs should be processed. Also find idle time of two machines.

Machines \ Jobs	Processing Time				
	1	2	3	4	5
X	19	8	15	21	12
Y	16	15	9	13	17

(b) Explain the principle of dominance for solving a game problem without saddle point.

4

OR

Define the sequencing and state its main assumptions.

(c) When the game is strictly determinable obtain the value of 'a' from the following :

		Player - B		
		B₁	B₂	B₃
Player - A	A₁	a	8	2
	A₂	-1	a	-7
	A₃	-3	5	a

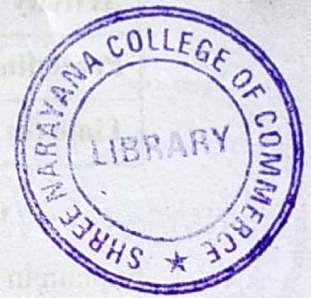


OR

17

Find the saddle point and game value of the following game :

		Player - B				
		B ₁	B ₂	B ₃	B ₄	B ₅
Player - A	A ₁	-2	1	3	4	5
	A ₂	5	3	4	6	4
	A ₃	0	-3	-4	2	3



4. (a) Find critical path, Total Floats (TF) and Independent Floats (IF) from the following project : 7

Activities	1-2	1-3	2-3	2-4	3-4	3-5	4-5
Time (in hours)	5	10	8	10	8	12	10

OR

A project has the following activities and time estimates :

Activity	Optimistic time	Most likely time	Pessimistic time
1-2	4	4	16
1-3	6	12	30
2-3	2	2	2
2-4	2	8	14
3-4	1	1	1
3-6	4	10	28
4-5	4	10	16
5-6	2	8	26

- (i) Draw PERT Network.
- (ii) Determine the expected time and its variance.
- (iii) Obtain the average compilation time of the project and its variance.
- (iv) Find the probability that the project will not be completed within 41 days.
[Value of $z = \pm 1$ is 0.3413 and $z = \pm 0.67$ is 0.2486]

18

(b) Draw the PERT Network and determine the critical path from the following :

4

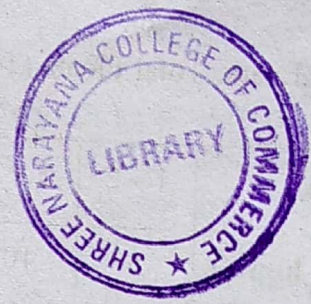
Activity	A	B	C	D	E	F	G	H
Preceding Activity	-	-	-	A	B	D, E	C	F, G
Time (in days)	5	3	8	2	10	4	8	6

OR

Explain in short :

- (i) Free Float
 - (ii) Independent Float
- (c) Define :

- (i) Event
- (ii) Activity
- (iii) Dummy Activity



3

OR

Define :

- (i) PERT
- (ii) C.P.M.
- (iii) Float Time

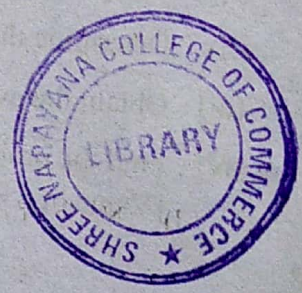
5. (a) Answer the following questions by selecting the proper alternatives :

6

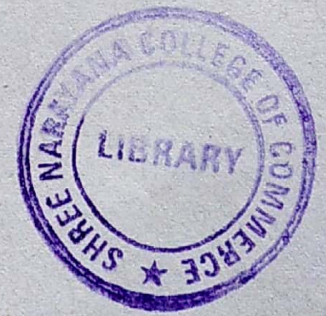
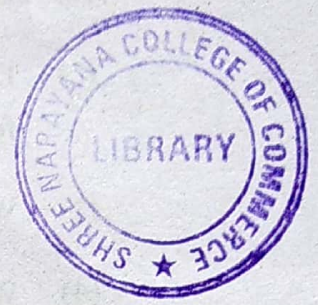
- (1) The expected value of perfect information is equal to _____.
- (a) $EPPI - \text{Max. EMV}$
 - (b) $EPPI - \text{Min. EMV}$
 - (c) $\text{Max. EMV} - EPPI$
 - (d) None of these

(2) In PERT and C.P.M. expected time is equal to _____.

- (a) $\frac{t_o + 4t_p + t_m}{6}$
- (b) $\frac{t_o + 4t_m + t_p}{6}$
- (c) $\frac{t_m + 4t_p + t_o}{6}$
- (d) None of these



- (3) In the problem of Game, a saddle point is exists when _____.
- (a) Maxi-Min value = Maxi-Max value
 - (b) Mini-Max value = Mini-Min value
 - (c) Maxi-Min value = Mini-Max value
 - (d) None of these
- (4) Each job is taken on different machines one by one for completion of different jobs on different machines. Such order is known as _____.
- (a) Idle order
 - (b) Process time
 - (c) Process order
 - (d) None of these
- (5) If the value of the non-basic variable is $\Delta_j = 0$ in last simplex table, then the solution is known as _____.
- (a) Alternative solution
 - (b) Infeasible solution
 - (c) Initial solution
 - (d) None of these
- (6) In simplex method, the element which is common to elements of key row and key column is called _____.
- (a) Row elements
 - (b) Column elements
 - (c) Key elements
 - (d) None of these



20

(b) Attempt (any four) :

- (1) State advantages of model.
- (2) Define Degenerate basic feasible solution and non-Degenerate basic feasible solution (According to Simplex Method).
- (3) What is Assignment problem with Restriction ?
- (4) What is 'No-passing' rule in sequencing problem ?
- (5) Write the characteristics of two person zero sum game.
- (6) Draw a PERT chart from the following and obtain C.P.M.

Activities	1-2	1-3	1-4	4-5	3-6	2-5	2-6	5-7	6-7
Time (in days)	4	3	2	6	3	2	4	3	2

