

BIJU PATNAIK INSTITUE OF IT & MANAGEMENT STUDIES

Integrated MBA 3rd SEMESTER (BATCH 2018-23) CLASS TEST – I

Quantitative Methods - II (IMN301)

Total Marks: 30

Time: 1 Hour

Q.1. Answer all the questions.

[2x5=10]

- a) What do you mean by payoff matrix?
- b) Define pure strategy and mixed strategy of game theory.
- c) What is two persons zero sum game concept.
- d) What is customer behaviour and its types?
- e) In a health clinic, average arrival is 12 per hour. A doctor can serve patients at the rate of one patient every four minutes. Find average no. of customers in a queue.

Q.2. Answer any two:

[5x2=10]

a) Solve by arithmetic Method.

$$\begin{bmatrix} 0 & 1 & 0 \\ 2 & 0 & 1 \\ 1 & 0 & 2 \end{bmatrix}$$

- b) A and B each take out one or two matches and guess how many opponent has taken. If one of the players guesses correctly then the looser has to pay him as many rupees as the sum of the number held by both players. Otherwise the payout is zero.
 - 1) Form the payoff matrix
 - 2) Obtain optimal strategies of both the players.
- b) A machine finds that time spent on his jobs has an exponential distribution with mean 40 minutes. If arrival is 8 per 8 hour day. Find
 - i) Expected idle time.
 - ii) Average no of machines in a system.

Q.3. Answer any one.

[1 x 10]

a) Apply dominance Rule and find optimal strategies of the players -

	Player B				
	I	II	III	IV	
Ι	18	4	6	4	
II	6	2	13	7	
III	11	5	17	3	
IV	7	6	12	2	
	III	I 18 II 6 III 11	I II I 18 4 II 6 2 III 11 5	I II III I 18 4 6 II 6 2 13 III 11 5 17	I II III IV I 18 4 6 4 II 6 2 13 7 III 11 5 17 3

- b) In rail yard, goods train arrives at a rate of 30 trains per day. Assuming that Inter arrival timing is exponential and service time distribution is exponential with an average 36 minutes. Calculate:
 - i) Mean queue size
 - ii) Probability that queue exceeds 10
 - iii) If input of train increases to an average 33 per day, what will be change in (i) and (ii)?



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CLASS TEST - I

Principles of Management (IMN302)

Total Marks: 30

Time: 1Hour

I. Answer all the questions:

[2x5=10]

- 1. Difference between efficiency & effectiveness
- 2. State the study results of Hawthorne Studies.
- 3. List out the functions of Management.
- 4. List out the types of planning based on the levels of management.
- 5. What is the abbreviation of SMART in MBO?

II. Answer any two of the following:

[5x2=10]

- 1. Explain in Short the assumptions of McGregor's Theory X & Y.
- 2. Briefly explain the Porter's 5 Force's Model.
- 3. Explain the steps involved in Decision Making.

III. Answer any one of the following:

[10x1=10]

- 1. Explain in detail the Fayol's 14 universal principles of management.
- 2. What is Management by Objective (MBO)? What are its distinctive features? Suggest step by step implementation process for introduction of MBO in a business organization.



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CLASS TEST - I

Law of Contract (IMN303)

Total Marks: 30

Time: 1Hour

I. Answer all the questions:

[1 x 10=10]

- 1. Define simple contract.
- 2. What is an agreement?
- 3. Not all agreements are enforceable by law, why?
- 4. What is general offer?
- 5. Is promise to pay a time barred debt enforceable?

II. Distinguish between: (Any two questions)

 $[5 \times 2=10]$

- 1. Agreement and contract.
- 2. Express contract and implied contract.
- 3. Void contract and voidable contract.

III. Explain any one of the following question:

 $[10 \times 1=10]$

- 1. Define 'Offer'. What are essentials of valid offer?
- 2. Explain "All contracts are agreement but all agreements are not contract".



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CLASS TEST - I Economic Analysis (IMN304)

Total Marks: 30

Time: 1Hour

Q1. Answer all. Compulsory

[2X5=10]

- a) What are the fundamental problems of an economy?
- b) What is an indifference curve?
- c) Define budget line.
- d) Explain any three factors or determinants of demand.
- e) What do you mean by substitute and complementary goods? Give two examples each.

Q2. Answer any two of the following:

[5X2=10]

- a) Explain the properties of indifference curve.
- b) Distinguish between change in quantity demanded and change in demand.
- c) Differentiate between Individual Demand Function and Market Demand Function.

Q3. Answer any one of the following:

[10 Marks]

- a) How is consumer's equilibrium achieved with the help of indifference curve analysis?
- b) Diagrammatically explain the Law of Diminishing Marginal Utility.

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CLASS TEST-I

Cost Accounting (IMN305)

Total Marks: 30

Time: 1 Hour

I. Answer all the questions.

(2 X 5=10)

- 1. What is cost sheet?
- 2. What is opportunity cost?
- 3. Give two examples of Overheads.
- **4.** What is cost centre?
- 5. What is sunk cost?

II. Answer any two of the followings:

 $(5 \times 2 = 10)$

- 1. Distinguish between Financial Accounting and Cost Accounting.
- 2. What are the various methods of costing?
- 3. Explain the concept of ABC analysis?

III. Answer any one of the followings.

(10 X 1=10)

- 1. What do you mean by inventory control? State its objectives and methods of pricing issues of materials.
- 2. From the following prepare a statement showing cost and profit per unit of fan sold: Labour: Rs 15600, Materials: Rs. 27300, factory overheads are recovered at 80% on labor and office overheads at 15% on factory cost. The selling price per unit is Rs. 1000 and 78 units were sold during the period.