



**Tamil Nadu Open University**  
**School of Computer Science**  
**Chennai – 15**  
**HOME / SPOT ASSIGNMENT**

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Programme Code No : 272  
Programme Name : Master of Computer Applications- LE  
Course Code & Name : MCA – 11 & Computer Graphics  
Batch : AY 2021-22 (1<sup>st</sup> Year)  
No. of Assignments : One Assignment for Each 2 Credits  
Maximum CIA marks : 15 (Average of Total No. of Assignments)

**ASSIGNMENT – 1**

Max: 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Explain in detail about polygon clipping.
2. Explain about Graphical input function.
3. Explain about cohen-sutherland line clipping algorithm.

**ASSIGNMENT - 2**

Max: 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Explain the working principle of shadow mask CRT.
2. Explain view transformation and windowing transformation in detail.
3. Explain the depth-sorting method in detail.



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Programme Code No : 272  
Programme Name : Master of Computer Applications- LE  
Course Code & Name : MCA – 12 & Design and Analysis of Algorithms  
Batch : AY 2021-22 (1<sup>st</sup> Year)  
No. of Assignments : One Assignment for Each 2 Credits  
Maximum CIA marks : 15 (Average of Total No. of Assignments)

**ASSIGNMENT – 1**

Max: 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Explain the methods used to analyse an algorithm.
2. What is meant by ordered list? Explain the algorithm used to create it.
3. Illustrate the applications of a tree with an example.

**ASSIGNMENT - 2**

Max: 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Explain the basic steps in the complete development of an algorithm with suitable example.
2. Explain the concepts of sub goals, hill climbing and working backward using a single example.
3. Write detail notes on simulation.



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Programme Code No : 272  
Programme Name : Master of Computer Applications- LE  
Course Code & Name : MCA – 13 & Accounting and Finance on Computers  
Batch : AY 2021-22 (1<sup>st</sup> Year)  
No. of Assignments : One Assignment for Each 2 Credits  
Maximum CIA marks : 15 (Average of Total No. of Assignments)

**ASSIGNMENT – 1**

Max: 15 marks

**Answer any one of the question not exceeding 1000 words**

1. What are accounting concepts? Name them and explain in details.
  
2. X Y Ltd., a multi-product company furnishes you the following data relating to year. Assuming that the cost structure and selling prices remains the same. Find out.
  - (a) P/V ratio
  - (b) Break even sales.
  - (c) Profit when sales are Rs. 1,00,000
  - (d) Sales required to earn a profit of Rs. 20,000.

Period	Sales	Profits
I	1,20,000	9,000
II	1,40,000	13,000

3. Explain VED Analysis with an example.

## ASSIGNMENT - 2

Max : 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Define different types of accounting. What are the advantages of it?
2. Define budgetary control and state its advantages.
3. You are given the following data for the year 2004 of the company.

Variable cost Rs. 6,00,000

Fixed cost     Rs. 3,00,000

Net profit     Rs. 1,00,000

Sales           Rs. 10,00,000

Find

- a. P/V Ratio
- b. Break-even point
- c. Profit when sales amounted to Rs. 12,00,000
- d. Sales required to earn a profit of Rs. 2,00,000.



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Programme Code No : 272  
Programme Name : Master of Computer Applications- LE  
Course Code & Name : MCA – 14 & Communication Skills  
Batch : AY 2021-22 (1<sup>st</sup> Year)  
No. of Assignments : One Assignment for Each 2 Credits  
Maximum CIA marks : 15 (Average of Total No. of Assignments)

**ASSIGNMENT – 1** Max. 15 Marks

**Answer any one of the question not exceeding 1000 words**

1. What are the various diagnostic models aiding in understanding oral communications?
2. Name and explain the different interviews used in an organization?
3. What is paraphrasing? Also list the techniques and dos and don'ts of paraphrasing.

**ASSIGNMENT - 2**

Max: 15 marks

**Answer any one of the question not exceeding 1000 words**

1. What are the attributes of a good conversationalist?
2. Briefly elaborate the negotiation techniques.
3. Give some examples of nonverbal behavior and its body language interpretation.



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Programme Code No : 272  
Programme Name : Master of Computer Applications- LE  
Course Code & Name : MCA – 15 & Computer Networks  
Batch : AY 2021-22 (1<sup>st</sup> Year)  
No. of Assignments : One Assignment for Each 2 Credits  
Maximum CIA marks : 15 (Average of Total No. of Assignments)

**ASSIGNMENT – 1**

Max: 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Explain OSI Reference model of Network architecture with Block diagram.
2. Discuss about Satellite Networks
3. Discuss about Broadcast Routing and Hierarchical Routing.

**ASSIGNMENT - 2**

Max : 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Describe the function of different layers in the OSI reference model.
2. Explain the MAC layer for medium access.
3. Explain multicast routing and link state routing algorithms.



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Programme Code No : 272  
Programme Name : Master of Computer Applications- LE  
Course Code & Name : MCA – 16 & Operation Research  
Batch : AY 2021-22 (1<sup>st</sup> Year)  
No. of Assignments : One Assignment for Each 2 Credits  
Maximum CIA marks : 15 (Average of Total No. of Assignments)

**ASSIGNMENT – 1**

Max: 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Find the optimum integer solution to the following L.P.P.

$$\text{Max } Z = x_1 + x_2$$

Subject to constraints

$$3x_1 + 2x_2 \leq 5$$

$$x_2 \leq 2$$

and  $x_1 > 0, x_2 \geq 0$  and are integers.

2. By dynamic programming technique, solve the problem

$$\text{Min } Z = x_1^2 + x_2^2 + x_3^2$$

Subject to constraints

$$x_1 + x_2 + x_3 \geq 15$$

and  $x_1, x_2, x_3 \geq 0$ .

3. Explain simulation and give its applications to queuing theory.

## ASSIGNMENT – 2

Max : 15 marks

**Answer any one of the question not exceeding 1000 words**

1. In a super market, the average arrival rate of customer is 10 in every 30 minutes following Poisson process. The average time taken by the cashier to list and calculate the customer's purchases is 2.5 minutes, following exponential distribution. What is the probability that the Queue length exceeds 6? What is the expected time spent by a customer in the system?
  
2. A manufacturer has to supply his customer with 600 units of his products per year. Shortage is not allowed and storage cost amounts to 60 paise per unit per year. The set up cost is Rs. 80.00 find
  - (a) The economic order quantity.
  - (b) The minimum average yearly cost.
  - (c) The optimum number of orders per year.
  
3. Find the optimum solution for the following transportation problem.

		Destination				Supply
		D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	
Origin	O <sub>1</sub>	11	13	17	14	250
	O <sub>2</sub>	16	18	14	10	300
	O <sub>3</sub>	21	24	13	10	400
Demand		200	225	275	250	





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Programme Code No : 272  
Programme Name : Master of Computer Applications- LE  
Course Code & Name : MCA – 17 & Operating Systems  
Batch : AY 2021-22 (1<sup>st</sup> Year)  
No. of Assignments : One Assignment for Each 2 Credits  
Maximum CIA marks : 15 (Average of Total No. of Assignments)

**ASSIGNMENT – 1**

Max: 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Explain the characteristics of modern operating system.
2. Define interprocess communication and also explain the producer – consumer problem.
3. What is meant by user authentication? Classify the types of authentication mechanism.

**ASSIGNMENT - 2**

Max: 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Explain shortest remaining time first-CPU scheduling in detail.
2. Write in detail about fixed and equal multiple partition memory management scheme.
3. Explain file accessing methods in detail.



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Programme Code No : 272  
Programme Name : Master of Computer Applications- LE  
Course Code & Name : MCA – 18 & Objected Oriented Analysis and Design  
Batch : AY 2021-22 (1<sup>st</sup> Year)  
No. of Assignments : One Assignment for Each 2 Credits  
Maximum CIA marks : 15 (Average of Total No. of Assignments)

**ASSIGNMENT – 1**

Max : 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Discuss in detail about objects and classes with necessary examples.
2. Discuss the overview of system design. Explain about sub systems.
3. Discuss in detail about non-object oriented languages.

Max : 15 marks

**ASSIGNMENT - 2**

**Answer any one of the question not exceeding 1000 words**

1. Explain in detail about advanced dynamic modeling concepts with its relevant example.
2. Explain about the steps required for software control implementation.
3. Describe in detail about design optimization for object designing phase.



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Programme Code No : 272  
Programme Name : Master of Computer Applications- LE  
Course Code & Name : MCA – 19 & Internet Programming  
Batch : AY 2021-22 (1<sup>st</sup> Year)  
No. of Assignments : One Assignment for Each 2 Credits  
Maximum CIA marks : 15 (Average of Total No. of Assignments)

**ASSIGNMENT – 1**

Max : 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Explain the different applications of internet.
2. Explain form validation in Java script with an example.
3. Explain about exception handling with illustration.

**ASSIGNMENT - 2**

Max : 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Explain in detail about table tags.
2. Explain Java bit wise operators with example.
3. Explain the importance and methods to implement interface in Java.



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Programme Code No : 272  
Programme Name : Master of Computer Applications- LE  
Course Code & Name : MCA – 20 & Visual Programming  
Batch : AY 2021-22 (1<sup>st</sup> Year)  
No. of Assignments : One Assignment for Each 2 Credits  
Maximum CIA marks : 15 (Average of Total No. of Assignments)

**ASSIGNMENT – 1**

Max : 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Discuss about the VB string manipulation functions in detail.
2. Explain about the VC++ event handling in detail.
3. Explain the key concepts of DLL in Visual C++.

**ASSIGNMENT - 2**

Max : 15 marks

**Answer any one of the question not exceeding 1000 words**

1. Explain Object-Oriented Programming and its characteristics.
2. Explain file concepts in VC++.
3. Discuss about ODBC connectivity for database.