



# TAMIL NADU OPEN UNIVERSITY

Chennai - 15

School of Computer Science

## HOME / SPOT ASSIGNMENT

Programme Code No	: 271
Programme Name	: Master of Computer Applications
Course Code & Name	: MCA – 01 & Computer Fundamentals
Batch	: AY 2019-20 (1 <sup>st</sup> Year)
No.of Assignment	: One Assignment for Each 2 Credits
Maximum CIA marks	: 25 (Average of Total No. of Assignments)

### ASSIGNMENT – 1

Max : 25 marks

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

1. Discuss in detail about the elements of Combinational Circuits.
2. Discuss in detail about method of vector processing.
3. Explain briefly ALU Organization.

### ASSIGNMENT - 2

Max : 25 marks

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

1. Write about the elements of sequential circuits.
2. Discuss in detail about Parallel Organization and RISC.
3. Explain in detail about method of vector processing.



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## HOME / SPOT ASSIGNMENT

Programme Code No	: 271
Programme Name	: Master of Computer Applications
Course Code & Name	: MCA – 02 & Introduction to Software
Batch	: AY 2019-20 (1 <sup>st</sup> Year)
No.of Assignment	: One Assignment for Each 2 Credits
Maximum CIA marks	: 25 (Average of Total No. of Assignments)

### ASSIGNMENT – 1

Max : 25 marks

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

1. Explain the Vi editor with various options.
2. Discuss in detail about trends in software development.
3. Explain the functions of memory management scheme.

### ASSIGNMENT - 2

Max : 25 marks

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

1. Explain C-SCAN scheduling of device management.
2. Describe about file access permission in UNIX OS.
3. Explain different Environment variables in detail.



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Programme Code No : 271  
Programme Name : Master of Computer Applications  
Course Code & Name : MCA – 03 & Data Structure through “C”  
Batch : AY 2019-20 (1<sup>st</sup> Year)  
No.of Assignment : One Assignment for Each 2 Credits  
Maximum CIA marks : 25 (Average of Total No. of Assignments)

## ASSIGNMENT – 1

Max : 25 marks

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

1. With Syntax, Explain While( ) and Switch( ) in detail.
2. With suitable program, Explain the concept of call by value and call by reference in detail.
3. What are the Graph Traversals? Explain in detail.

## ASSIGNMENT - 2

Max : 25 marks

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

1. Explain Sequential and Indexed File organizations in detail.
2. Write algorithm for inserting and deleting an item into stack.
3. With Syntax, Explain if() and Switch() in detail.



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Programme Code No : 271  
Programme Name : Master of Computer Applications  
Course Code & Name : MCA – 04 & Elements of System Analysis and Design  
Batch : AY 2019-20 (1<sup>st</sup> Year)  
No.of Assignment : One Assignment for Each 2 Credits  
Maximum CIA marks : 25 (Average of Total No. of Assignments)

## ASSIGNMENT – 1

Max : 25 marks

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

1. Explain about system development life cycle.
2. What is meant by knowledge based system? Explain briefly.
3. Explain in detail about the functions of project management.

## ASSIGNMENT - 2

Max : 25 marks

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

1. What are the primary functions of a second-level managerial position in MIS division?
2. Explain HIPO in detail.
3. Discuss the overview of system implementation.



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Programme Code No : 271  
Programme Name : Master of Computer Applications  
Course Code & Name : MCA – 05 & Introduction to Database Management Systems  
Batch : AY 2019-20 (1<sup>st</sup> Year)  
No.of Assignment : One Assignment for Each 2 Credits  
Maximum CIA marks : 25 (Average of Total No. of Assignments)

## ASSIGNMENT – 1

Max : 25 marks

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

1. Explain 1NF, 2NF and 3NF with suitable example.
2. What are the basic relational algebra operations?
3. Discuss the design of distributed databases.

## ASSIGNMENT - 2

Max : 25 marks

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

1. Explain E-R diagram with example.
2. Discuss different types SQL commands.
3. Discuss in detail about different of methods of file organization.



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Programme Code No : 271  
Programme Name : Master of Computer Applications  
Course Code & Name : MCA – 06 & Introduction to Computer Organisation  
Batch : AY 2019-20 (1<sup>st</sup> Year)  
No.of Assignment : One Assignment for Each 2 Credits  
Maximum CIA marks : 25 (Average of Total No. of Assignments)

## ASSIGNMENT – 1

Max : 25 marks

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

1. Discuss about Error detection and Error correction codes.
2. Write shorts on I/O process.
3. Draw and explain Microcomputer Architecture.

## ASSIGNMENT - 2

Max : 25 marks

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

1. Define gate. What are universal gates and explain?
2. Explain the following:
  - (a) Half adder
  - (b) Full adder
3. What is ALU? Explain one stage of ALU.



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Programme Code No : 271  
Programme Name : Master of Computer Applications  
Course Code & Name : MCA – 07 & Introduction to Software Engineering  
Batch : AY 2019-20 (1<sup>st</sup> Year)  
No.of Assignment : One Assignment for Each 2 Credits  
Maximum CIA marks : 25 (Average of Total No. of Assignments)

## ASSIGNMENT – 1

Max : 25 marks

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

1. Discuss about the circle generation algorithms.
2. Describe the viewing transformations.
3. Explain the Sutherland Hodgman algorithm.

## ASSIGNMENT - 2

Max : 25 marks

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

1. Explain spiral and RAD process models.
2. Describe the significance of fourth generation techniques.
3. Explain the COCOMO estimation model.



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## HOME / SPOT ASSIGNMENT

Programme Code No	: 271
Programme Name	: Master of Computer Applications
Course Code & Name	: MCA – 08 & Computer Oriented Numerical Methods
Batch	: AY 2019-20 (1 <sup>st</sup> Year)
No.of Assignment	: One Assignment for Each 2 Credits
Maximum CIA marks	: 25 (Average of Total No. of Assignments)

### ASSIGNMENT – 1

Max : 25 marks

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

1. Using the Gauss – Jordan method solve the following equations.  
 $10x + y + z = 12$   
 $2x + 10y + z = 13$   
 $x + y + 5z = 7.$
2. Find a root of the equation  $x^3 - 4x - 9 = 0$  correct to two decimal places by using the bisection method.
3. Given  $\frac{dy}{dx} = x^3 + y$ ,  $y(0) = 2$ , compute  $y(0.2)$ , by Runge – Katta method of fourth order.

### ASSIGNMENT - 2

Max : 25 marks

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

1. Solve the following system of equation using Gauss–Elimination method.

$$2x + y + 4z = 12$$

$$8x - 3y + 2z = 20$$

$$4x + 11y - z = 33$$

2. Explain about the Simpson's 1/3 rule with example.

3. Using Newton's Formula, find y when x = 27, from the following data:

X:	10	15	20	25	30
Y:	35.4	32.2	29.1	26.0	23.1





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HOME / SPOT ASSIGNMENT

Programme Code No : 271  
Programme Name : Master of Computer Applications  
Course Code & Name : MCA – 09 & C++ and Object Oriented Programming  
Batch : AY 2019-20 (1<sup>st</sup> Year)  
No.of Assignment : One Assignment for Each 2 Credits  
Maximum CIA marks : 25 (Average of Total No. of Assignments)

## ASSIGNMENT – 1

Max : 25 marks

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

- 1.Explain different types of inheritance.
- 2.Explain various stream classes.
- 3.Explain the steps to create templates with example.

## ASSIGNMENT - 2

Max : 25 marks

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

1. Explain about the basic concepts of OOPS.
2. Explain the control structure and write the syntax and example.
3. Explain inline function with example.



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HOME / SPOT ASSIGNMENT

Programme Code No : 271  
Programme Name : Master of Computer Applications  
Course Code & Name : MCA – 10 & Theory of Computer Science  
Batch : AY 2019-20 (1<sup>st</sup> Year)  
No.of Assignment : One Assignment for Each 2 Credits  
Maximum CIA marks : 25 (Average of Total No. of Assignments)

## ASSIGNMENT – 1

Max : 25 marks

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

1. Write in detail about equivalent in automation.
2. Construct truth table for the formula  $(Q \wedge (P \rightarrow Q)) \rightarrow P$ .
3. Explain in detail transition function in Finite automation.

## ASSIGNMENT - 2

Max : 25 marks

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

1. What are the Kleene closures of the set  
 $A = \{0\}$ ,  $B = \{0,1\}$  and  $C = \{1,1\}$
2. Find a Turing machine that recognizes the set  $\{0^n 1^n \mid n \geq 1\}$ .
3. Explain recursive function theory with example.