



TAMIL NADU OPEN UNIVERSITY
Chennai - 15
School of Computer Science

ASSIGNMENT-1

Programme Code No	: 146
Programme Name	: B.Sc Computer Science
Course Code & Name	: BCM – 01 & Mathematics
Batch	: AY 2018-19
No.of Assignment	: One Assignment for Each 2 Credits
Maximum Marks	: 100
Weightage	: 25%

Part – A (4 x 10 = 40 Marks)

Answer the following in 200 words each. Each question carries 10 marks

1. Find the approximate value of the real root of $x \log_{10} x = 1.2$ by Regula – Falsi method.
2. Solve the system of equations by Gauss – Elimination method.
 $10x - 2y + 3z = 23, \quad 2x + 10y - 5z = -33, \quad 3x - 4y + 10z = 41.$
3. Let A be a set $A = \{1, 2, 3\}$, R , S are the relations. $R = \{(1, 1), (1, 2), (1, 3), (3, 3)\}$, $S = \{(1, 1), (1, 2), (2, 1), (2, 2), (3, 3)\}$ determine which of the relation are reflexive.
4. Prove that every regular set is accepted by a finite state automaton.

Part – B (2 x 30 = 60 Marks)

Answer **any two** of the questions given below in 1000 words each.

1. Find the real positive root of $3x - \cos x - 1 = 0$ by Newton – Raphson method correct to 4 decimal places.
2. Solve the following system of equations by using Gauss – Jacobi method correct to 3 decimal places. $8x - 3y + 2z = 20, \quad 4x + 11y - z = 33, \quad 6x + 3y + 12z = 35.$
3. If $A = \{1, 2, 3, \dots, n\}$ show that any function from A to A which is one-to-one must also be onto.



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ASSIGNMENT-1

Programme Code No	: 146
Programme Name	: B.Sc Computer Science
Course Code & Name	: BSCS – 04 & Introduction to Computer Organisation
Batch	: AY 2018-19
No.of Assignment	: One Assignment for Each 2 Credits
Maximum Marks	: 100
Weightage	: 25%

Part – A (4 x 10 = 40 Marks)

Answer the following in 200 words each. Each question carries 10 marks

1. Discuss NAND, NOR and buffer logic gates with truth table.
2. Discuss the various types of auxiliary memory.
3. Discuss Micro operation.
4. Explain loops with examples.

Part – B (2 x 30 = 60 Marks)

Answer **any two** of the questions given below in 1000 words each.

1. Explain about cache memory.
2. Explain ALU organization.
3. Discuss about assembly language programming development tools.



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ASSIGNMENT-1

Programme Code No	: 146
Programme Name	: B.Sc Computer Science
Course Code & Name	: BSCS – 05 & ‘C’ Programming and Data Structure
Batch	: AY 2018-19
No.of Assignment	: One Assignment for Each 2 Credits
Maximum Marks	: 100
Weightage	: 25%

Part – A (4 x 10 = 40 Marks)

Answer the following in 200 words each. Each question carries 10 marks

1. Write a C program to find the sum of even integers between 1 and n .
2. Compare structure with unions.
3. Explain the operation on single linked list.
4. Write an algorithm for heap sort.

Part – B (2 x 30 = 60 Marks)

Answer **any two** of the questions given below in 1000 words each.

1. Explain the important file handling functions in C with examples.
2. Write a C program to sort the given set of n numbers using pointers.
3. Explain Infix to postfix conversion.



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Programme Code No	: 146
Programme Name	: B.Sc Computer Science
Course Code & Name	: BSCS – 06 & Visual Basic Programming
Batch	: AY 2018-19
No.of Assignment	: One Assignment for Each 2 Credits
Maximum Marks	: 100
Weightage	: 25%

Part – A (4 x 10 = 40 Marks)

Answer the following in 200 words each. Each question carries 10 marks

1. What is meant by graphical interface and explain its advantages?
2. Explain about the property windows.
3. Describe the different screen and error objects.
4. Discuss the how the OLE used in VB?

Part – B (2 x 30 = 60 Marks)

Answer **any two** of the questions given below in 1000 words each.

1. Discuss about the control structure in VB.
2. Explain Multiple Document Interface – A simple MDI application.
3. How to Create an Active X control project? Explain.



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ASSIGNMENT-2

Programme Code No	: 146
Programme Name	: B.Sc Computer Science
Course Code & Name	: BCM – 01 & Mathematics
Batch	: AY 2018-19
No.of Assignment	: One Assignment for Each 2 Credits
Maximum Marks	: 100
Weightage	: 25%

Part – A (4 x 10 = 40 Marks)

Answer the following in 200 words each. Each question carries 10 marks

5. Form the polynomial equation of the lowest degree with rational coefficients having $\sqrt{3}$ and $1+2i$ as two of its roots.
6. Solve the equation $x^4 - 5x^3 + 4x^2 + 8x + 8 = 0$ given that $+\sqrt{5}$ is a root.
7. Solve the equation $x^3 + x^2 - 1$ for the positive root by iteration method.
8. Solve the following systems by Gauss-Jordan method:

$$x + y + 2z = 4, \quad 3x + y - 3z = -4, \quad 2x - 3y - 5z = -5$$

Part – B (2 x 30 = 60 Marks)

Answer **any two** of the questions given below in 1000 words each.

9. List out the types of Relations and explain any 3 relations with example.
10. Find the real positive root of $3x - \cos x - 1 = 0$ by Newton – Raphson method correct to 4 decimal places.
11. Solve the equation $x^4 + 2x^3 - 5x^2 + 6x + 2 = 0$ given that $1 + i$ is a root.



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ASSIGNMENT-2

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Course Code & Name	: BSCS – 04 & Introduction to Computer Organisation
Batch	: AY 2018-19
No.of Assignment	: One Assignment for Each 2 Credits
Maximum Marks	: 100
Weightage	: 25%

Part – A (4 x 10 = 40 Marks)

Answer the following in 200 words each. Each question carries 10 marks

5. Explain Boolean Algebra.
6. Write about the structure of CPU.
7. Explain Assembly Language fundamentals.
8. Discuss about DMA in detail.

Part – B (2 x 30 = 60 Marks)

Answer **any two** of the questions given below in 1000 words each.

1. Explain combinational circuits with neat diagram.
2. Explain interconnection structures.
3. Explain about instruction formats.



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No.of Assignment	: One Assignment for Each 2 Credits
Maximum Marks	: 100
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Part – A (4 x 10 = 40 Marks)

Answer the following in 200 words each. Each question carries 10 marks

5. What are the operators in C? Explain Arithmetic operator with an example.
6. Write a short note on Queue operations?
7. What are the types of sorting techniques? Explain Quick sort
8. Explain the operation on single linked list.

Part – B (2 x 30 = 60 Marks)

Answer **any two** of the questions given below in 1000 words each.

1. Explain briefly about Binary tree traversal
2. Write an algorithm for heap sort.
3. Explain and write an algorithm to traverse a graph through DFS.



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Part – A (4 x 10 = 40 Marks)

Answer the following in 200 words each. Each question carries 10 marks

5. Explain the use of arrays
6. Write a short note on event procedure.
7. What are the steps involved in Building a project.
8. What is meant by graphical interface and explain its advantages?

Part – B (2 x 30 = 60 Marks)

Answer **any two** of the questions given below in 1000 words each.

4. Describe in detail Visual Basic forms and controls.
5. Discuss about the control structure in VB.
6. Explain about the property windows.