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|  | **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 : cY 2019

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 value of K if 3 + 2i is a root of the equation x2 – 6x + K = 0.
2. Solve x3 = 2x + 5 for the positive root by interaction method.
3. Let N = { 1,2,3,…} and R be the relation on N defined by x + 2y = 8 . Write R as a set of ordered pairs and find R-1.
4. Define:

(a) finite automaton

(b) a non-deterministic finite automaton.

**Part – B (2 x 30 = 60 Marks)**

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

1. Solve: 6x4 + 5x3 – 38x2 + 5x + 6 = 0.
2. Find the positive root of 2x3 – 3x – 6 = 0 by Newton – Raphson method correct to three decimal places.
3. If R and S are equivalence relations in X , prove that R∩S is an equivalence relation in X .

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|  | **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 : BSCS – 04 & Introduction to Computer Organisation

Batch : CY 2019

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 about Full Adder with circuit diagram.
2. Explain about the various memory devices.
3. List out different types of instruction.
4. Discuss about Interface to high level program.

**Part – B (2 x 30 = 60 Marks)**

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

1. Discuss about different generation of computers.
2. What is ALU? Explain one stage of ALU.
3. Explain hardware implementation of shift operation.

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|  | **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 : BSCS – 05 & ‘C’ Programming and Data Structure

Batch : CY 2019

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. Describe the features of C language.
2. Explain the general format for defines a function
3. Write an algorithm for the push operation in a Queues.
4. Write an algorithm for Bubble sort.

**Part – B (2 x 30 = 60 Marks)**

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

1. Describe the various types of Expressions in C.
2. Describe the various data I/O functions in C.
3. Write an algorithm to traverse binary tree through in order and post order.

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|  | **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 : BSCS – 06 & Visual Basic Programming

Batch : CY 2019

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. Explain in detail about the Graphical User Interface.
2. Write about the Tool Box controls.
3. Explain about the FOR loops with syntax.
4. Illustrate detail about the OLE.

**Part – B (2 x 30 = 60 Marks)**

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

1. Explain about the Even Driven Programming with example.
2. Explain in detail about the Screen and Printer.
3. Describe about the Graphics handling and MDI application.

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|  | **TAMIL NADU OPEN UNIVERSITY**  **Chennai - 15**  **School of Computer Science**  **ASSIGNMENT-2** |

Programme Code No : 146

Programme Name : B.Sc Computer Science

Course Code & Name : BCM – 01 & Mathematics

Batch : CY 2019

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. Solve x3 -8x2 + 9x + 18 = 0, given one of its root is twice another.
2. Solve the system of equations by Gauss-Elimination method.

x + 2y + z =3; 2x +3y + 3z = 10 and 3x – y +2z = 13

1. Prove that the mapping f : R , defined by f(x) = ax + b where a , b, xR; a is invertible.
2. If L be accepted by a non-deterministic finite state acceptor, then prove that there exists an equivalent deterministic finite state acceptor that accepts L.

**Part – B (2 x 30 = 60 Marks)**

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

1. Diminish the roots of the equation x4 – 4x3 -7x2 + 22x +24 = 0 by 1 and hence solve the equation.
2. Solve the system of equations by Gauss-Seidel method.

9x + 2y + 4z = 20; x + 10y +4z = 6 and 2x – 4y + 10z = -15.

1. If f(x) = x + 2, g(x) = x-2 and h(x) = 3x2 for x R find fh .

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|  | **TAMIL NADU OPEN UNIVERSITY**  **Chennai - 15**  **School of Computer Science**  **ASSIGNMENT-2** |

Programme Code No : 146

Programme Name : B.Sc Computer Science

Course Code & Name : BSCS – 04 & Introduction to Computer Organisation

Batch : CY 2019

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. Explain about the Digital Logic Circuits.
2. Discuss about various addressing modes.
3. Write an assembly language program to add two numbers.
4. Explain data transfer instructions.

**Part – B (2 x 30 = 60 Marks)**

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

1. What is decoder? Explain 3-to-8 Decoder.
2. Discuss about Control Unit Organization.
3. Discuss about Assembly language fundamentals.

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|  | **TAMIL NADU OPEN UNIVERSITY**  **Chennai - 15**  **School of Computer Science**  **ASSIGNMENT-2** |

Programme Code No : 146

Programme Name : B.Sc Computer Science

Course Code & Name : BSCS – 05 & ‘C’ Programming and Data Structure

Batch : CY 2019

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. Explain the do-while statement with an example.
2. Write a note on pointer to function.
3. Explain the operation on single linked list.
4. Discuss about the Sorting with disk and tape.

**Part – B (2 x 30 = 60 Marks)**

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

1. Explain the following

(a) Switch case

(b) if –else.

1. Write a program to sort the given set of n names in alphabetical order.
2. 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 : CY 2019

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 about the Visual Basic IDE.
2. Describe about the VB object oriented programming.
3. Mention about the different types of Arrays. Explain them.
4. Write a VB program to create an ActiveX control project.

**Part – B (2 x 30 = 60 Marks)**

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

1. Write detail about the Tool box controls and mouse events.
2. Discuss about the control Structures with suitable examples.
3. Briefly explain about the creating a database in VB with suitable example.