**MONAD UNIVERSITY**
Village & Post Kastla, Kasmabad, P.O Pilkhuwa - 245101
Tehsil Hapur (U.P), India

Course: BTCS-212 (Data Structures Using - C)
Assignment No: 1
Due date of submission: 10.11.2016

**Instructions**

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within the due date.
3. Write your Name, Programme and Enrollment No. clearly at the top of page.

Q.1

a) Consider the linear arrays AAA(5:50), BBB (-5:10) and CCC(18).
   1. Find the number of elements in each array.
   2. Suppose Base(AAA) = 300 and w=4 words per memory cell for AAA. Find the address of AAA [15], AAA [35] and AAA [55].

b) Define the recursion. Write a recursive and non-recursiveprogram to calculate the factorial ofthe given number.

Q.2

a) What is bucket sort?Write the algorithm for bucket sort.

b)

1. What is sorting? Explain bubble sort algorithm with the help of a suitable example.
2. What is binary tree? Write the important applications of binary tree. Explain algorithmfor inorder, preorder and post order traversal of a binary tree with the help of an example each.

# Monad University, Hapur

**B.Tech.(CS/IT)**

**Semester – III**

**Assignment No: 1**

CODE: BTCS-215 (Web Technology)

Submission Date: 10 November 2016

**Instructions:**

1. **Write the responses to the assignment in your own handwriting.**
2. **Submit the responses to your HOD within the due date.**
3. **Write your name, programme and enrollment number clearly at the top of the Pages.**

Question 1

a) What is Web technology? Explain in brief.

b) What are the functions in java script? Write the syntax with example to create function.

Question 2

a) What is CSS? Name the different ways to apply a CSS to an HTML document.

b) Create your time table on HTML page.

Course: EEM-236, ENGINEERIENG MATHEMATICS-III (All Branch)

Assignment No: 1

Due date of submission: 10/11/2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within due date.
3. Write your name, programme, and Enrollment no. clearly at the top of the page.
4. Each question's part carries 5 marks.

Q.1

**a)** If $f(z)$ is a harmonic function of z, show that

$$\left\{\frac{\partial}{\partial x}|f(z)|\right\}^2+\left\{\frac{\partial}{\partial y}|f(x)|\right\}^2=|f'(z)|^2$$

**b)** Use residue calculus to evaluate the following integral. $\int_0^{2\pi}\frac{1}{5-4\sin\theta}d\theta$

Q.2

**a)** By contour integration, prove that $\int_0^{x}\frac{\sin mx}{x}dx=\frac{\pi}{2}$

**b)** fit a straight line to the following data

| X | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| Y | 1.0 | 2.9 | 4.8 | 6.7 | 8.6 |

**MONAD UNIVERSITY**

Village & Post Kastla, Kasmabad, P.O Pilkhuwa - 245101
Tehsil Hapur (U.P), India
E.C Department

Course: Digital Logic Design
Assignment No: 1
Due date of submission: 10.11.2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme and Enrolment No. clearly at the top of this page.

Q.1

a) Find Octal, Decimal and Hexadecimal equivalents of the following binary numbers;

(i) $(1111)_2$ (iii) $(101000)_2$ (v) $(11101111)_2$
(ii) $(100010)_2$ (iv) $(1100111)_2$

b) (i) Convert decimal number to binary number;

$(7400)_2$
$(9812)_2$

(ii) Convert hexadecimal number to its binary equivalent;

$(1DC8)_{16}$
$(2BA5)_{16}$

(iii) Convert a decimal number $(1390)_{10}$ to Binary, Hexa, BCD and Octal.

(iv) Find 1's Complement of;

$(110011)_2$
$(1010.1101)_2$

Q.2

a) (i) What is De-Morgan's Theorem and Duality Theorem?
(ii) Explain AND, OR and NOT gates in detail.

b) (i) Explain the concept of Universal Gates with example.
(ii) Define the following terms;

- Truth Table
- Fan-In
- Fan-Out
- Propagation Delay
- Noise Margin

Course: EIS 235, Industrial Sociology (All Branch)

Assignment No: 1

Due date of submission: 10/11/2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within due date.
3. Write your name, programme, and Enrollment no. clearly at the top of the page.
4. Each question's part carries 5 marks.

Q1.

(a) Discuss concept of industrialization.

(b) Define the factory System.

Q2.

(a) Discuss various scope of Industrial Sociology.

(b) Make a comparison between Industrial Sociology and Economics.

# MONAD UNIVERSITY HAPUR (UP)

**Course: B.Tech, Subject Name: Discrete Mathematics**

Assignment No: 1

Due date of submission: 10.11.2016

Instruction

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Program me, and Enrolment No. clearly at the top of the page.

Q.1.

(a) Write the isomorphism of group with example.

(b) Group A and Group B are isomorphic if and only if for some ordering of their vertices and their adjacency matrix are equal.

Q.2

(a) Define complete graph with example $K_6$.

(b) Write truth table for p^q^r, where p, q, r are any proposition.

**Course: Fundamental of Value Education in Profession**

**Program: B.Tech III Sem (ME/CS-IT/AG)**

**Submission Date: 05 November 2016**

**Assignment No: 1**

**Instructions:**

1. **Write the assignment in your own handwriting.**
2. **Submit assignment to your HOD within given time.**
3. **Write your name , programme and enrollment number clearly at the top of the Pages**

**Q.1**

(a) What do you understand by values in present scenario?

(b) Define the need of value education in technical field.

**Q.2**

(a) Define happiness and prosperity.

(b) Describe Justice in your own words.