



MONAD University
N.H. 24, Delhi Hapur Road,
Village & Post Kastla, Kasmabad, P.O Pilkhuwa - 245304,
Dist. Hapur (U.P.), India

Assignment No: 2

Programme (Branch)/Sem:.....

Course Name:-.....

Submitted by :-

Candidate's Name:.....

Enrollment No.:-

Roll No. :-

Date of Submission:-

Submitted to:-

.....



**MONAD
UNIVERSITY**
Established by UP State Govt. Act 23 of 2010
& U/S 2 (f) of U.G.C. Act 1956

Programme: B.Tech (CSE-IIIrd)
Course Name: Digital Logic Design
Course Code: BTCS-211
Assignment No: 2
Due date of submission: 23.10.2017

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.

Question No. 1.

- (a) Explain Universal shift register.
- (b) Sketch and explain write and read cycles of RAM using timing waveforms.

Question No. 2.

- (a) Sketch and explain half and full adders.
- (b) Explain SR Latch with NOR and NAND gates using truth tables.



**MONAD
UNIVERSITY**
Established by UP State Govt. Act 23 of 2010
& U/S 2 (f) of U.G.C. Act 1956

Programme: B.Tech (CSE-IIIrd)
Course Name: Data Structures Using - C
Course Code: BTCS-212
Assignment No: 2
Due date of submission: 23.10.2017

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.

Question No. 1.

- a) As you are aware of Linked List. So, explain the insertion and deletion operation on linked list with the help of an example of each.
- b) As you are aware of Tree data structure. So, you can explain Threaded Binary trees with example. Do it.

Question No. 2.

- a) As you are aware of Graph data structure. So, explain the graph traversal algorithm Depth First Search (DFS) with the help of an example.
- b) As you know about sorting. So, you can explain Heap sort algorithm with example. Do it.



**MONAD
UNIVERSITY**
Established by UP State Govt. Act 23 of 2010
& U/S 2 (f) of U.G.C. Act 1956

Programme: B.Tech (CSE-IIIrd)
Course Name: Engineering Mathematics-III
Course Code: BTCS-213
Assignment No: 2
Due date of submission: 23.10.2017

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.

Question No. 1.

- a) We know very well that moments are statistical tools, used in statistical investigation denoted by μ . If $x_1, x_2, x_3, x_4, \dots, x_n$ are the value of variable with corresponding frequencies $y_1, y_2, y_3, y_4, \dots, y_n$ respectively then moment about mean is define as

$$\mu_r = \frac{\sum_{i=1}^n f_i (x_i - \bar{x})^r}{N}, \text{ where } r = 1, 2, 3, 4, \dots \text{ and } N = \sum_{i=1}^n f_i. \text{ The first three moments of a}$$

distribution, about the value 2 of the variable are 1, 16 and -40. Show that the mean is 3, variance is 15 and $\mu_3 = -86$.

- b) We know very well that, in correlation analysis, the degree (or strength) of relationship between two variables, say X and Y , is measured by a single number r called a correlation coefficient for examples: Volume of a cube $V = L^3$, perfectly correlated, Rainfall and crop yield, correlated. Computational formula is

$$r = \frac{N \sum xy - \sum x \sum y}{\sqrt{[N \sum x^2 - (\sum x)^2][N \sum y^2 - (\sum y)^2]}}$$

Now using this formulae,

calculate the correlation coefficient between the following data:

X	5	9	13	17	21
Y	12	20	25	33	35

Question No. 2.

- a) A time series is a set of numerical values of a given variable listed at successive intervals of time. For example: Hourly temperature of a city, bimonthly electricity bills

Moving averages is used for smoothing the time-series. That is, it smoothens the fluctuations of the data by the method of moving averages. When period of moving average is odd. Fit a trend line to the following data by the free hand graphical method:

Year	1980	1981	1982	1983	1984	1985	1986
Sales	35	60	45	70	65	62	80

- b) A **transcendental** function is an analytic function that does not satisfy a polynomial **equation**, in contrast to an algebraic function on the other hand a function which is not an algebraic function. In other words, a function which "transcends," i.e., cannot be expressed in terms of, algebra. Examples of transcendental functions include the **exponential function**, the **trigonometric** functions and the inverse functions of both a polynomial is an expression formed from adding a series of terms which are all powers of x and a constant. Algebraic functions can be expressed as polynomials and roots while transcendental functions have roots that cannot be so expressed because the function isn't built on polynomials and radicals. They are built on functions like logs, exponents, and trigonometry functions. This is the difference between a **transcendental** function and algebraic function. Compute the real root of the equation $x^3 - 5x + 3 = 0$ in the interval [1,2] by the secant method by performing four iteration.



**MONAD
UNIVERSITY**
Established by UP State Govt. Act 23 of 2010
& U/S 2 (f) of U.G.C. Act 1956

Programme: B.Tech (CSE-IIIrd)

Course Name: Discrete Mathematical Structures

Course Code: BTCS-214

Assignment No: 2

Due date of submission: 23.10.2017

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.

Question No. 1.

- (a) Draw a circuit which realizes (represents) the Boolean algebra can function
$$f = abc' + a'(b + c')$$
- (b) What is don't care condition?

Question No. 2.

- (a) Define isomorphic graphs with examples.
- (b) Define bipartite graph.



MONAD
UNIVERSITY
Established by UP State Govt. Act 23 of 2010
& U/S 2 (f) of U.G.C. Act 1956

Programme: B.Tech (CSE-IIIrd)
Course Name: Web Technology
Course Code: BTCS-215
Assignment No: 2
Due date of submission: 23.10.2017

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) As you are aware of JavaScript. So, you can explain the different loops available in JavaScript with the help of an example of each.
- b) As you are aware of CSS. You will learn more, if you attempt to explain all the ways of using CSS for WebPages. Go ahead.

Q.2

- a) As you are aware of HTML and XML. So, you can give all the differences between them. Do it.
- b) As you are aware of PHP. So, you can define it in your own words and also discuss its features and applications in detail. Do it.



**MONAD
UNIVERSITY**
Established by UP State Govt. Act 23 of 2010
& U/S 2 (f) of U.G.C. Act 1956

Programme: B.Tech (CSE-IIIrd)
Course Name: Essentials of Management
Course Code: BBA-111
Assignment No: 2
Due date of submission: 23.10.2017

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.

Question:-1

- a) What do you mean by decision- making?
- b) What is meant by programmed decisions and non programmed decisions?

Question:-2

- a) What is meant by organizing? Briefly explain the objectives of organizing process.
- b) What is an organizational Structure? Why is an organizational structure important?