Programme – MCA
All Assignments are compulsory. Solve any One question from each Assignment

SUBJECT : Discrete Structure

Assignment-1

Q.1 How can this English sentence be translated into a Logical expressi "You cannot ride the roller coaster if you are under 4 feet tall unless you are older than 16 years old"

Q.2 Show that p ↔ q and (p ∧ q) ∨ (~ p ∧ ~ q).

Q.3 Show that 1^2+2^2+--------$+n^2 = \frac{n(n+1)(2n+1)}{6}$ n≥ 1 by Mathematical in induction.

Q.4 Prove that (A-B) ∪ (B-A) = (A∪B) – (A∩B).

Assignment-2

Q.1 If Q is the sets of all rational and f:Q→Q is a mapping Defined by f(x) = 2x+3,∀ x→Q

Then prove that f is one one-onto .find f^{-1}

Q. 2 Suppose that the relation R1 and R2 an a set A are represented by the matrix.

$$M_{R1} = \begin{bmatrix} 1 & 0 & 1 \\ 1 & 0 & 0 \\ 0 & 1 & 0 \end{bmatrix} \quad M_{R2} = \begin{bmatrix} 1 & 0 & 1 \\ 0 & 1 & 1 \\ 1 & 0 & 0 \end{bmatrix}$$ What are the matrix representing R1∪R2 and R1∩R2 ?

Q.3 Explain all Gates with example of Boolean Functions.

Q.4 Explain the following with example

1)Finite Automata 2) Hasse Diagrams 3) Recursion Relation

SUBJECT : Database Management Systems

Assignment No 1

1. Define database. Explain the advantages of database over traditional file processing system
2. Compare Hierarchical, Network and Relational Data models with its merits and demerits.
3. Explain the process of Normalization with an example.
4. Explain hashing technique in detail

Assignment No 2

1. Explain the various deadlock prevention techniques in detail.
2. Explain the Shadow Paging Recovery Mechanism with an example
3. What are the roles and responsibilities of Database Administrator?
4. Write Short notes on:
    a. Distributed Database
    b. Data Warehouse

SUBJECT : Website Development

Assignment 1

Q. 1   Explain syntax and functionality of following HTML tags with proper example.

 i) Body

 ii) Anchor

 iii) Image

 iv) List

Q.2   Explain the following terms:-

 i) Web server

 ii)Web-browser

Q.3   Write a short note on 'Frames'.

Q.4   How to create table using HTML? Explain different attributes which give effects to it.

SUBJECT : Website Development

Assignment 2

Q. 1   Explain different objects of HTML forms.

Q.2   What are the advantages of JavaScript.

Q.3   Explain various types of arrays in PHP.

Q.4   Explain any five built in functions used in PHP.

SUBJECT : C Programming

Assignment-1

Q.1 Explain data types in C.

Q.2 Explain control statement in C with suitable example.

Q.3 Explain looping statement with example in C.

Q.4 What is function? Explain types of function.

Q.5 what is recursion? Explain with example.

Assignment-2

Q.1What is array? Explain types of arrays.

Q.2 Explain string functions with examples.

Q.3 Explain structure with example.

Q.4What is union? Differentiate between structure and union.

SUBJECT : Computer Organization and Architecture

Assignment-1

Q.1) What is computer? Explain the various components of computer with diagram and the functions of the components.

Q.2) What is micro operation? Discuss types of micro operations with examples.

Q.3) Describe in brief various addressing modes.

Assignment-2

Q.1)What is combinational circuits? Describe the working of combinational circuits.
Q.2)What is stack? State and explain the operations of stack.

Q.3) Write notes on
a. DMA
b. Parallel processing
c. Hacking

SUBJECT : **Management Functions**

Assignment-I

Q1) Define management. Explain in detail functions of management?

Q2) Explain the contribution made by Henry Fayol in the field of management and administration?

Q3) Define organizing. What are its benefits? Explain in detail its process.

Q4) Define employee retention. What are different employee retention strategies?

Assignment-II

Q1)What is delegation of authority? What are the various elements involved in delegation process?

Q2) Define manpower planning. Explain in detail steps in manpower planning?

Q3) Define decision making. Explain in detail different methods of decision making under different

conditions.

Q4. Define leadership. What are qualities of good leader?

SUBJECT : **C Lab**

Assignment-1

1. Write a C program to perform arithmetic operations
2. Write a C program to display factorial of a given number.
3. Write a C program to calculate a^b, where a and b are entered through the keyboard.
4. Write a C program to calculate electricity-bill for a customer, where unit details are entered through the keyboard.
5. Write a C program to check whether a given number is prime or not.
6. Write a C program to check whether a given number is Armstrong number or not.
7. Write a C program to display sum of digits of given integer number.

Assignment-2

1.Write a C program to demonstrate use of any five string functions.

2.Write a C program using function Swap() to interchange the values of two variables

3.Write a program to display the following pattern:

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* * * * *
* * * *
* * *
* *
*
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4.Write a menu driven program to calculate Area of

    1) circle
    2) triangle
    3) square
    4) rectangle

5.Write a program to sort elements stored in an array.

6.Write a program to perform following operations on a matrix; addition, subtraction

7.Write a C program using structure to demonstrate mark sheet application.

SUBJECT : **Soft Skills**

Assignment-1

Q1)What is debate? Explain the do's and don'ts of debate.

Q2. What is SWOT? Perform your personal SWOT analysis.

Q3) Explain the do's and don'ts in a group discussion.

Q4) Time management can be done effectively by using technology which also reduces time wastage. Do you agree with this statement? Justify.

Assignment-2

Q1) Explain the techniques of effective listening.

Q2) Elaborate on verbal and non-verbal communication skills.

Q3) Explain the importance of eye contact in public speaking.

Q4) Explain the importance of body language for effective communication.