Sai Nath University

Assignment For MCA 2nd Sem.

The Assignment will consist of two parts, A and B. Part A will have 5 short answer questions(40-60 words) of 4 marks each. Part B will have 4 long answer questions of 5 marks each.

All questions are compulsory.

These Assignments should be completed and submitted in written form by the student to his/her respective Faculty/ Examiners. Assignment Submission Dates are:

- **June-18**

List Of Suggested Questions

The list of suggested questions is for students to practice. Although optional, we recommend that students solve these questions, as they will help them in preparing for exams as well as in clearing the important concepts of the subject.

List of Practical and suggested practical's

The list of practical's should be done by the students in their Lab Sessions. These are the basic practical's, which each student should be able to do himself independently. While the list of suggested practicals are optional, but it is recommended that students should perform those practical so as to have a thorough knowledge of the subject

Education Delivery Schedule (EDS)

As per University Semester scheme, the minimum contact hours of each paper has been

Divided into two hours theory and practical class.

The faculty will maintain this attendance paper wise for his/her batch.

Subject Code	Subject Name
MCA 210	JAVA PROGRAMMING
MCA 220	OBJECT ORIENTED PROGRAMMING IN C++
MCA 230	DATA STRUCTURE
MCA 240	SYSTEM SOFTWARE
MCA 250	INTERNET & WEB TECHNOLOGY
MCA 260P	PROGRAMMING LAB- II (DATA STRUCTURE PROGRAMMING IN C++)

SAI NATH UNIVERSITY

Cover page of Assignment

ID NUMBER ……

NAME …… ……

COURSE MCA……

STREAM ……

SEM 2nd ……

SUBJECT CODE ……

SUBJECT NAME ……

Assignments will be completed by the Student in his/her own handwriting.

MCA 210

JAVA PROGRAMMING

Part A

Q.1 what is difference between jdk, jre and jvm?

Q.2 HOW MANY TYPES OF MEMORY AREAS ARE ALLOCATED BY JVM?

Q.3 WHAT IS JIT COMPILER? WHAT IS PLATFORM?

Q.4 WHAT IS THE MAIN DIFFERENCE BETWEEN JAVA PLATFORM AND OTHER PLATFORMS?

Q.5 WHAT GIVES JAVA ITS 'WRITE ONCE AND RUN ANYWHERE' NATURE?

Part B

Q.1 WHAT IS INHERITANCE ? WHY MULTIPLE INHERITANCES IS NOT SUPPORTED IN JAVA?

Q.2 WHAT IS DIFFERENCE BETWEEN OBJECT ORIENTED PROGRAMMING LANGUAGE AND OBJECT BASED PROGRAMMING LANGUAGE?

Q.3 WHAT WILL BE THE INITIAL VALUE OF AN OBJECT REFERENCE WHICH IS DEFINED AS AN INSTANCE VARIABLE?

Q.4 WHAT IS CONSTRUCTOR? WHAT IS THE PURPOSE OF DEFAULT CONSTRUCTOR?

MCA 220

OBJECT ORIENTED PROGRAMMING IN C++

Part A

1. 1 What is a class? What is an object? What is an abstract class in C++?
2. What is header file? What is a preprocessor?
3. Name the data type which can be used to store wide characters, Boolean value in C++.
4. What is inheritance? List the types of inheritance supported in C++.
5. What is a storage class? Mention the storage classes names in C++.

Part B

1. What is function overloading?
2. What is operator overloading?
3. What is a constructor? What is a default constructor?
4. What is a friend function?

MCA 230

DATA STRUCTURE

Part A

1. What are linear and non linear data Structures?
2. What are the various operations can be performed on different Data Structures?
3. How is an Array different from Linked List?
4. What is Stack and where it can be used?
5. What is a Queue, how it is different from stack and how is it implemented?

Part B

1. What are Infix, prefix, Postfix notations?
2. What is a Linked List and What are its types?
3. Which data structures are used for BFS and DFS of a graph?
4. Can doubly linked be implemented using a single pointer variable in every node?

MCA 240

SYSTEM SOFTWARE

Part A

1. Explian in detail about the basic Macro Processor functions.
2. Explain in detail about ANSI C macro Language
3. Explain System software and application software?
4. What is operating System?
5. What is microprocessor?

Part B

1. Explain about the SIC architecture.
1. What are basic assembler functions? Explain in details.
2. Explain in detail about basic loader functions.
3. Write in detail about MS-DOS Linker.

MCA 250

INTERNET & WEB TECHNOLOGY

Part A

1. What is HTML 5?
2. Write any 5 html tags with example.
3. What is internet? Explain in brief.
4. What is Browser? Explain its function with example.
5. What is Domain Name System (DNS)? Explain in brief.

Part B

1. What is Internet Protocol (IP)? Explain in brief TCP/IP model.
2. What do you understand by computer network? Explain in details with its types.
3. What do you understand by LAN and WAN? Explain with example.
4. Explain ISO of OSI model (All 7 layers)?

MCA 260 P

PROGRAMMING LAB- II (DATA STRUCTURE PROGRAMMING IN C++)

Q.1 Write a program to take 10 numbers is an one dimensional array and print in vertical order.

Q.2 Write a program to multiply two matrixes each of 3x3.

Q.3 Write a program to implement a stack.

Q.4 Write a program to implement a queue in an array.

Q.5 Write a single linked list program to operate following operations

Creation of list

Insertion of a no in beginning

Insertion of a no in between

Insertion of a no at last.

Q.6. Write a program to show circular linked list.

Q.7 Write a program to show linear and binary search.