

Computer Science

(330)

Assignment - I

(Lessons 1-6)

Max. Marks: 25

- Note:** (i) All questions are compulsory. Each question carries equal marks.
(ii) Write your name, enrolment number, AI name and subject etc. on the top of the first page of the answer sheet.

1. Answer any **two** of the following questions.
 - (a) Differentiate between machine language and assembly language.
 - (b) Explain the concept of volatile and non-volatile memory.
 - (c) What is ALU and how does it work? Explain briefly.
2. Answer any **two** of the following questions.
 - (a) Write short notes on:
 - (i) Wide Area Network
 - (ii) Cache Memory
 - (b) Explain briefly about digital and analog transmission.
 - (c) “Multithreading is a characteristic of Java” Justify this statement.
3. What is the difference between File and Folder? Explain the various steps to create a folder on the Desktop.

Or

Draw a diagram of data processing cycle and explain briefly about each component of it.

4. What is an output device? Explain about any two commonly used output devices.

Or

What do you mean by the term topology? Differentiate between Star and Ring topology. Draw a diagram to explain it.

5. Project work

Write down the necessary steps to carry out the following.

- (a) Create a folder named as ‘NIOS’ at the desktop.
- (b) Open the folder in Windows Explorer.
- (c) Create a document file in the folder
- (d) Give the sharing privilege to the folder.
- (e) Rename the folder as “Open Schooling”

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Assignment - II

(Lessons 7-11)

Max. Marks: 25

- Note:** (i) All questions are compulsory. Each question carries equal marks.
(ii) Write your name, enrolment number, AI name and subject etc. on the top of the first page of the answer sheet.

1. Answer any **two** of following questions
 - (a) What is an operator? Name the various types of operators used in C++? Explain briefly about Assignment Operator.
 - (b) Write short note on “Inheritance” in C++?
 - (c) Explain the term “modularity” along with its advantages
2. Answer any **two** of the following questions
 - (a) Write a program that will find the smallest of 3 numbers entered by the user.
 - (b) Differentiate between “While” and “Do While” with examples.
 - (c) Write a program “For” loop that displays numbers in a series of 10, 30, 50 --110.
3. Write a program that will sort the given 10 numbers in ascending order using
 - (a) Bubble sort
 - (b) Selection sort approach.

Or

Write a program in C++ to call a function which will return the square of a given number.

4. Write a program which will ask the user to enter the following string “INDIA IS A DEMOCRATIC COUNTRY” Write a program that will count:
 - (a) Number of characters in the above sentence
 - (b) Number of words in the above sentence and
 - (c) Number of A’s, E’s and O’s in the above sentence.

Or

Input two strings S1 and S2 and do the following.

- (a) Compare whether they are equal or not
 - (b) Find the length of string S1
 - (c) Merge two strings S1 and S2
5. **Project Work**
Write a program to
 - (a) Declare a list of 15 numbers using arrays.
 - (b) Declare an array of 15 characters.
 - (c) Input the numbers and the characters.
 - (d) Search a number from the list using binary search approach.

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Assignment - III

(Lessons 12-16)

Max. Marks: 25

- Note:** (i) All questions are compulsory. Each question carries equal marks.
(ii) Write your name, enrolment number, AI name and subject etc. on the top of the first page of the answer sheet.

1. Answer any **two** of following questions

- (a) Write a statement that declared an enumerated data type called weekday with the values

sun, mon, tue, wed, thur, fri, sat

- (b) Out put of following

```
# include < iostream.h>
Void main()
{
struct name
{
Char first [8];
Char middle [8];
Char last [8];
{
name n1 ={ "AMIT", "KUMAR", "GUPTA" };
name n2 =n1;
if(n1!=n2)
cout << "The structures are not equal";
else
cout << "The structures are same equal";
}
```

- (c) Differentiate between Constructors and Destructors.

2. Answer any **two** of the following

- (a) Write a C++ nested structure for the record given below use the appropriate date types

Name	DOB	DOJ	Emp. No.
	Date	Date	
	Month	Month	
	Year	Year	

- (b) What is the basic difference between an array and a structure; write the syntax of accessing data members of the structure?

(c) Declare a structure as

Name	Class	Address
		House No.
		Street
		City
		State
		PIN Code

Write a C++ program, which use two structure variables. Initialize one and input the other variable. Then display both the variables using cout statement.

3. Discuss the significance of different visibility modes.

Or

Discuss the various types of constructors with appropriate examples.

4. What do you mean by pointer variable? Explain the following;

- (a) Pointer to Array
- (b) Pointer to string constant
- (c) Pointer to structure
- (d) this pointer

5. **Project Work**

Define an employee with the following specifications

Private members

- Name - 20 Characters
- Employee Code - 4 Characters
- Designation - 10 Characters
- Basic, DA, HRA - Float
- Salary - Float

Calculate () function computes the salary and returns it. Salary is sum of Basic, DA, HRA

Public members -

Readdata () function accepts the data values and invokes the calculate function.

Display data () function prints the data on the screen.