BCA 3RD SEM ASSIGNMENT

Object Oriented Programming Using C++

PART-A

Q1- Define Abstraction and Encapsulation in object oriented programming. Explain class and object with the help of an example.

Q2- What is polymorphism ? Explain its advantages. Write a C++ program to demonstrate polymorphism.

Q3- Write a C++ program to find the sum of two given numbers.

Q4- What is a constructor ? Explain the advantages of using constructors with the help of an example.

Q5- What is encapsulation ? Are encapsulation and information hiding the same ? Explain.

PART-B

Q1-What is a virtual function? Write a program in C++ to define a class "Teacher's with a virtual function "Salary". Derive class "Associate-Professor" from class teacher and implement the salary function.

Q2-What is inheritance? What are the different types of inheritance supported by C++ ? Explain how inheritance is implemented in C++.

Data Structure Using C & C++

PART-A

Q1- Write an algorithm to read any two floating point numbers from the user and display their product and quotient.

Q2- Write an algorithm to insert and to delete a node at a specified position in a singly linked list.

Q3- What is hashing ? Write its significance and advantages.

Q4- describe the stack data structure using an example. Also write the limitations of using an array for stack implementation.

Q5- Explain Direct File Organization. State advantages and disadvantages of this file organization.

PART-B

Q1-Write an algorithm for binary search. Also list the conditions under which linear search is preferred over binary search.

Q2- Define circular queue. What is the condition that a circular queue is full, if queue is implemented using array ?

Computer Architecture & Assembly Language

PART-A

Q 1- What is a Full Adder ? Write the truth table for a full adder and draw its logic diagram.

Q2- What are Instructions ? Explain the factors considered while deciding the instruction length. What are variable length instructions ?

Q3- Explain the steps involved in the fetch cycle of an instruction execution using micro-operations.

Q4- Write a program using 8086 assembly language that compares two numbers of size one byte each and moves the larger number into the DL register. Assume that both the numbers are stored in two consecutive memory locations.

Q5- Explain the purpose of addressing modes in the context of instruction set of a computer.

PART-B

Q 1- What is Random Access Memory (RAM) ? Explain the working of RAM with the help of its logic diagram.

Q2- What are the different external memories ? Explain seek and latency time in respect to a hard DISK.

Business Economics

PART-A

Q 1- Explain the concept of Incremental Cost (IC) and Incremental Revenue (IR) with respect to the basic factors of decision-making.

Q2- What do you understand by optimization concept ? Substantiate your answer with the help of examples.

Q3- How can the demand be estimated using regression analysis ? Explain giving examples.

Q4- Explain the expert opinion and survey method for measuring the demand.

Q5- List and explain various factors determining the nature of competition in a Market.

PART-B

Q 1- Discuss in brief different methods for estimating the cost-function.

Q2- Explain the concept of job analysis. Briefly describe the various methods of job analysis and their relevance in present day context.

Elements of Statistics

PART-A

Q 1- What are the main sources of secondary data ? What precautions should you observed in making use of secondary data ;

Q2- A trader bought an article for 340 and sold it gaining 15% of the sale price. What is his gain ? And, if the cost price is increased by 25% and the sale price by 10%. What will be the change in his

Q3- What is sampling ? Explain briefly the various methods of sampling.

Q4- Write a short note on "Law of Statistical 5 Regularity".

Q5- Distinguish between biased and unbiased errors. Discuss the method of estimating these errors both absolutely and relatively.

PART-B

Q 1- Distinguish between any two of the following :

(a) Dispersion and Skewness

(b) Histogram and Historigram

(c) Quartiles and Decides

(d) Harmonic mean and Geometric mean