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(2063)

810

B.Tech 2nd Semester Examination

Principles of Computer Programming and C++

BE-104

Time : 3 Hours **Max. Marks : 100**

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/ continuation sheet will be issued.

Note : Attempt one question each from Sections A, B, C and D. Section E is compulsory.

SECTION - A

1. (a) Draw the block diagram of computer and explain its different components in detail. **(10)**

   (b) What is memory in computer? Explain different types of memory. **(10)**

OR

2. (a) Give a brief introduction of the following.

   (i) Chain printer

   (ii) Daisy wheel printer

   (iii) Laser printer. **(10)**

   (b) What is primary and secondary memory? Explain types of RAM and ROM? **(10)**

SECTION - B

3. (a) Differentiate between High level and Low level languages with suitable examples. What are testing and debugging of a program? **(10)**

   (b) Write down the purpose of following external command with syntax

   (i) CLS (ii) DEL

   (iii) MD (iv) CD

   (v) DIR (vi) TYPE **(10)**

OR

4. (a) Differentiate among compiler, interpreter and assembler. Give a brief introduction to algorithm and Flow-chart. **(10)**

   (b) What is software? Explain System software and Application software. **(10)**

SECTION - C

5. Differentiate between procedural programming and object oriented programming. Explain the feature of inheritance in C++. **(20)**

OR

6. (a) What is operator overloading m C++? Differentiate between class and objects. **(10)**

   (b) Write a C++ program to find the sum and average of an array. A with n integer values using the feature of dynamic initialization of variables. **(10)**

SECTION - D

7. (a) Discuss the following decision control and loop control statements with examples.

(i) if-else (ii) while

(iii nested if (iv) do-while

(v) for (vi) break **(20)**

OR

8. (a) Write a program to generate the Fibonacci series using recursion. **(10)**

(b) With the help of suitable examples explain how to declare, define and call a function in C++? **(10)**

SECTION - E

9. Short answer type questions

(i) What are the different types of monitors?

(ii) What is the use of track ball and joy stick?

(iii) Why do we use Flow-charts?.

(iv What is an algorithm'?

(v) Explain data binding in C++.

(vi) What is data abstraction?

(vii) Define the instance of a class.

(viii) Explain argument passing by reference.

(ix) What are the differences between logical operators and relational operators?

(x) How to declare a integer, constant and character pointer in C++. **(20)**