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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Electrical &amp; Electronics Engg.) (2012 Onwards E-I) (Sem.-6)

**OBJECT ORIENTED PROGRAMMING**

Subject Code : BTEEE-603C

M.Code : 72844

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A****1. Answer briefly :**

- a) Differentiate between data hiding and encapsulation.
- b) What are parameterized constructors?
- c) What are virtual destructors?
- d) What are pure virtual functions?
- e) Differentiate between new operator and malloc function.
- f) What are operators << and >> used for?
- g) Which operator is used to access public members of an object?
- h) What function can be used to open a file in C++?
- i) What is explicit constructors?
- j) What is the use of command line arguments?

### SECTION-B

2. Write a program to sort a list of strings into alphabetical order using an array of pointers.
3. Explain how new and delete operators manage memory allocation/deallocation dynamically.
4. How are structures in C different from a class? What is meant by dynamic initialization of a variable? Explain how memory is allocated to classes and objects.
5. Explain the difference between C and C++.
6. Write a program in C++ to count the numbers of digits in given string.

### SECTION-C

7. Discuss in detail features of object oriented programming.
8. What are the various types of inheritance in C++? Give an example of each. What are virtual functions and pure virtual functions?
9. Explain the concept of constructors, destructor and friend functions with the help of a program.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**