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Total No. of Questions : 09]

[Total No. of Pages : 02

**B.Tech. (Sem. - 3<sup>rd</sup>)**

**OBJECT ORIENTED PROGRAMMING USING C ++**

**SUBJECT CODE : CS - 252 (2K7 & onwards Batch)**

**Paper ID : [A0304]**

[Note : Please fill subject code and paper ID on OMR]

**Time : 03 Hours**

**Maximum Marks : 60**

**Instruction to Candidates:**

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

**Section - A**

**Q1)**

**(10 × 2 = 20)**

- a) Distinguish between binary and text files.
- b) Distinguish between single and multiple inheritances.
- c) Explain function overloading with an example.
- d) Explain array of pointers to an object through an example.
- e) Distinguish between 'c' and 'c++'.
- f) Can operator precedence be changed through operator overloading?
- g) What are the characteristics of a constructor?
- h) What are the implications of public, protected and private visibility modes?
- i) What are the advantages of reference variables in parameter passing?
- j) What is the purpose of the scope resolution operator?

**Section - B**

**(4 × 5 = 20)**

**Q2)** How are the pre-incrementer and post-incrementer taken care while declaring the operator overloading?

**Q3)** Explain the mechanism of unary operator overloading.

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- Q4) Discuss the exception handling features of c++.
- Q5) Explain the use of copy constructor with an example.
- Q6) What is the use of reference variables?

**Section - C**

(2 × 10 = 20)

- Q7) Discuss the principles of object-oriented programming.
- Q8) Write a program in C++ that illustrates the concepts of function overloading and function-overriding.
- Q9) Write a program in C++ to create a database of the following items of the derived class.

Name of the patient, Sex, Age, Ward number, Bed number, Nature of illness, Date of admission.

Design a base class consisting of data members viz., name of patient, sex and age and another base class consisting of ward number, bed number and the nature of illness. The derived class consists of data member, date of admission,

Program should carry the following methods :

- (a) Add new entry.
- (b) List the complete record.

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