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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (AIDS/AIML/Block Chain/CSE/IOT/CSD/DS/Robotics and Artificial Intelligence) (Sem.-3)

OBJECT ORIENTED PROGRAMMING

Subject Code : BTCS302-18

M.Code : 76437

Date of Examiantion:18-12-2024

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. **Write briefly:**

- a) Explain the typical structure of a C++ program.
- b) What is an array?
- c) What is Destructor? How is it defined?
- d) What are static data members?
- e) Discuss the uses of public, private and protected access specifiers in a class.
- f) Give the order of calling of constructors under inheritance.
- g) Are virtual functions inherited?
- h) What is an abstract class?
- i) When do we use multiple catch handlers?
- j) Discuss the use of ifstream and ofstream classes for file input and output.

SECTION-B

2. Explain various types of operators in C++ language.
3. How do you achieve operator overloading using friend function?
4. Discuss different visibility modes to derive a class for inheritance.
5. Explain the concept of early binding and late binding in detail.
6. Explain the process of open, read, write and close files in C++.

SECTION-C

7. a) **Explain the following with examples:**
 - i) Inline functions
 - ii) Class and Objects
- b) Explain various types of Constructors with examples.
8. What do you mean by Inheritance? What is the need of Inheritance? Explain various types of Inheritance with the help of suitable examples.
9. a) What is a virtual function? Why it is used? Explain with suitable example.
- b) What is exception handling in C++ programming? Explain the exception handling mechanism.

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.