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15CS45

Fourth Semester B.E. Degree Examination, Jan./Feb.2021 Object Oriented Concepts

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain features of OOPs. (06 Marks)
- b. Define class and object with syntax of class. (04 Marks)
- c. Define function overloading? Explain with an example. (06 Marks)

OR

- 2 a. Define constructor. Write a program demonstrating the use of constructors and destructor. (06 Marks)
- b. Describe the nested classes with examples. (04 Marks)
- c. Write C++ program to find smallest of 3 numbers. (06 Marks)

Module-2

- 3 a. List and explain the Java Buzzwords. (08 Marks)
- b. Discuss Bitwise and relational operators in Java. (02 Marks)
- c. Write a Java program to find largest of 3 numbers. (06 Marks)

OR

- 4 a. Discuss Java's iteration statements for, while and do-while with example. (06 Marks)
- b. Explain the concept of arrays in Java with examples. Write a Java program that creates and initializes a five integer elements array. Find the sum and average of its values. (08 Marks)
- c. Define Bytecode. (02 Marks)

Module-3

- 5 a. With examples, give two uses of super. (08 Marks)
- b. Discuss about nested try statements and how such program may be executed. (08 Marks)

OR

- 6 a. Explain Java's built in exceptions. (08 Marks)
- b. Write general form of interface. How interfaces can be extended and implemented. (08 Marks)

Module-4

- 7 a. What is multithreading? Explain with an example the implementation of multithreading in java. (08 Marks)
- b. What is the need of synchronization? Explain with an example how synchronization is implemented in java. (08 Marks)

OR

- 8 a. Define adapter class. Explain the significance of adapter class with example. (08 Marks)
- b. Explain inner class with example. (04 Marks)
- c. Explain the mechanism of Delegation Event model. (04 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.

**Module-5**

- 9 a. What are the two types of applets? Explain the skeleton of an applet with five methods init(), start(), stop(), destroy() and paint() methods. (08 Marks)
- b. Write syntax of APPLET tag with possible attributes and explain. (04 Marks)
- c. Explain parameter passing to applet with an example. (04 Marks)

OR

- 10 a. Define Tree Write steps to create JTree. Also write a program to demonstrate the same. (08 Marks)
- b. Explain the components and containers used in swings. (03 Marks)
- c. Write steps to create JTable, also write a program to demonstrate the same. (05 Marks)
