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15CS45

Fourth Semester B.E. Degree Examination, June/July 2018

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. State the important features of Object Oriented programming paradigm. (08 Marks)
- b. Write a C++ program to get employees details (empno, ename, bsalary(initialized to 1000 by constructor) and allowance) of Employee class through keyboard using the method Getdata() and display them using the method Dispdata() on console in the format empno, ename, bsalary, allowance. (08 Marks)

OR

- 2 a. Describe function Prototype, with an example. (04 Marks)
- b. Explain namespace, with an example. (04 Marks)
- c. Define Function Overloading and write a C++ program for finding areas of circle ($\pi * r * r$), rectangle ($l * b$) and square ($x * x$) by getting r, l, b and x through keyboard and printing the areas on console using the method Area() applying the concept of function overloading. (08 Marks)

Module-2

- 3 a. State the features used in C++ which are eliminated in Java. Why? (04 Marks)
- b. Discuss briefly the concept of byte code in Java. (04 Marks)
- c. Explain the structure of a Java program and its keywords with an example. (08 Marks)

OR

- 4 a. How arrays are defined in Java? Explain with an example. (04 Marks)
- b. Elucidate how Java is a platform independent language, with neat sketches. (06 Marks)
- c. Write a Java program to print factorial of the number 'n' using for loop. (06 Marks)

Module-3

- 5 a. Explain package and its types and import command in Java with examples. (08 Marks)
- b. Write a Java program to define an interface called Area which contains method called Compute() and calculate the areas of rectangle ($l * b$) and triangle ($1/2 * b * h$) using classes Rectangle and Triangle. (08 Marks)

OR

- 6 a. Define the role of Exception handling in software development. (02 Marks)
- b. Write a Java program for illustrating the exception handling when a number is divided by zero and an array has a negative index value. (06 Marks)
- c. Elucidate the concept of inheritance and its classifications in Java with sketches. (08 Marks)

Module-4

- 7 a. Define the concept of multithreading in Java and explain the different phases in the life cycle of a thread, with a neat sketch. (08 Marks)
- b. Discuss briefly Synchronization in Java (2). (02 Marks)
- c. Write an example Program for implementing static synchronization in Java. (06 Marks)

OR

- 8 a. Elucidate the two ways of making a class threadable, with examples. (08 Marks)
b. Describe the delegation event model and explain what happens internally at a button click. (08 Marks)

Module-5

- 9 a. Briefly explain Applets. (03 Marks)
b. Elucidate Lucidly the skeleton of an Applet. (05 Marks)
c. Write a Java program to play an audio file using Applet. (08 Marks)

OR

- 10 a. Write the advantages of swing over AWT. (04 Marks)
b. Write a brief note on Containers in swing. (04 Marks)
c. Write a swing program for displaying anyone of the options. C , C++ , Java, Php through the selection of Combo box by clicking show button. (08 Marks)

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