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15CS45

Fourth Semester B.E. Degree Examination, Feb./Mar.2022

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. Differentiate between object oriented and procedure oriented programming concepts. (04 Marks)
- b. What is function overloading? Write a C++ program to define overloaded functions. (06 Marks)
- c. Define friend function. What are the rules to be used while using friend function? Illustrate with an example. (06 Marks)

OR

- 2 a. Define reference variable, scope resolution operator and name space. (03 Marks)
- b. Explain static member functions with suitable example. (05 Marks)
- c. What are constructors? Explain different types of constructors. (08 Marks)

Module-2

- 3 a. List and explain java buzz words. (08 Marks)
- b. Explain the structure of java program with an example. (06 Marks)
- c. Explain with example,
(i) Short circuit logic operator. (ii) For each. (02 Marks)

OR

- 4 a. Define Byte code. How does it help java programs to achieve portability? (04 Marks)
- b. Explain the different ways of array declaration with syntax. (07 Marks)
- c. Explain continue and break statements in java. (05 Marks)

Module-3

- 5 a. Explain finalize () method in java with suitable example. (04 Marks)
- b. Define inheritance, how super key is used in inheritance. Explain two general forms for super key. (06 Marks)
- c. Explain the concept of method overriding in Java with example. (06 Marks)

OR

- 6 a. What is an exception? Explain different exception handling mechanisms. (06 Marks)
- b. Explain access protection and importing of package in java. (05 Marks)
- c. Write a java program to implement stack operations. (05 Marks)

Module-4

- 7 a. Explain the concept of thread and write a program in java to create thread by using implementing runnable. (06 Marks)
- b. Briefly explain the role of,
(i) Window event class.
(ii) Mouse Event class. (06 Marks)
- c. What is an adapter class? Demonstrate with suitable example. (04 Marks)

OR

- 8 a. What is synchronization? Explain the producer consumer problem with a program. (06 Marks)
b. What is an event? Explain the delegation event model in java. (04 Marks)
c. What is an inner class? Illustrate with a java program. How to define and use an inner class? (06 Marks)

Module-5

- 9 a. What is an applet? Explain different stages in life cycle of applet. (06 Marks)
b. Create swing applet that has two buttons name Jbutton1 and Jbutton2 when either of the buttons pressed it should display "Jbutton1 was pressed" and "Jbutton2 was pressed" respectively. (06 Marks)
c. Explain the following with an example:
(i) JLabel
(ii) ImageIcon (04 Marks)

OR

- 10 a. Explain the concept of getDocumentBase () and getCodeBase () with examples. (06 Marks)
b. What is swing? Explain important features of swing. (04 Marks)
c. Explain the following with an example:
(i) JScrollPane.
(ii) JTabbedPane.
(iii) JComboBox (06 Marks)
