

CBGS SCHEME

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17CS42

Fourth Semester B.E. Degree Examination, Aug./Sept. 2020 Object Oriented Concepts

Time: 3 hrs.

Max. Marks: 100

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. (10 Marks)
b. Define function overloading and write a C++ program for finding volume of a cube ($s*s*s$), volume of cylinder ($PI*r*r*h$), rectangular box ($l*b*h$) by accepting input from keyboard and printing the volume on console using the method volume () applying the concept of function overloading. (10 Marks)

OR

- 2 a. Explain function prototyping with example. (06 Marks)
b. How do namespace helps in preventing pollution of the global namespace? (06 Marks)
c. What is constructor? List the different types of constructors and explain default constructor. (08 Marks)

Module-2

- 3 a. List and explain JAVA Buzzwords. (10 Marks)
b. Explain the structure of JAVA program and its keywords with an example. (10 Marks)

OR

- 4 a. Discuss the label break and continue statement, with an example each. (06 Marks)
b. Explain concepts of arrays in JAVA with example. Also write a program that creates and initialize a five floating element array. Find the sum and average of its value. (08 Marks)
c. Write a JAVA program to calculate Sum and average of first six elements of an array {10, 20, 32, 42, 55, 60, 75, 82, 90, 92} using for each loop. How for each is different from for loop. (06 Marks)

Module-3

- 5 a. Explain the different access specifiers in JAVA with example. (08 Marks)
b. Which is the alternative approach to implement multiple inheritance in JAVA? Explain with an example. (06 Marks)
c. With example, give two uses of super. (06 Marks)

OR

- 6 a. What is an exception? With syntax and example, explain exception handling mechanism. (08 Marks)
b. When constructors are called in the class hierarchy? (06 Marks)
c. Explain package and its types. Explain import command in Java with examples. (06 Marks)

Module-4

- 7 a. What is the need of synchronization? Explain with an example, how synchronization is implemented in Java. (08 Marks)
b. What is meant by thread priority? How is it assigned? (08 Marks)
c. Briefly explain adapter class. (04 Marks)

OR

- 8 a. Explain the mechanism of event delegation model. Give an example for using keyboard event. (10 Marks)
- b. Define the concept of multithreading in Java and explain different phases in life cycle of a thread. (05 Marks)
- c. Explain keyEvents and mouseEvent class. (05 Marks)

Module-5

- 9 a. What is an applet? What are its types? Explain the skeleton of an applet. Enlist Applet tags. (10 Marks)
- b. Give the different forms of repaint method. (06 Marks)
- c. Explain getDocument () and getCodebase (). (04 Marks)

OR

- 10 a. Write the advantages of swings over AWT. (04 Marks)
- b. Explain two key features of swings. (06 Marks)
- c. Write a swing program for displaying anyone of the options ; apple, orange, mango, grapes, through the selection of combobox by clicking show button. (10 Marks)
