



# CBGS SCHEME

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)

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.

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)

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