

CBCS SCHEME

18CS45



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Fourth Semester B.E. Degree Examination, July/August 2021

Object Oriented Concepts

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. Give the difference between procedure oriented and object oriented programming. (05 Marks)
b. Explain the three principles of OOP. (05 Marks)
c. What is function overloading? Write a C++ program to define 3 overloaded functions area() to find area of circle, triangle and rectangle. (10 Marks)
- 2 a. Why friend function required? Write a program to add 2 numbers using friend function. (08 Marks)
b. What is static member of a class? Write a C++ program to count the number of objects created. (08 Marks)
c. Write a C++ program using inline function to find maximum of 2 numbers. (04 Marks)
- 3 a. List and explain Java buzzwords. (08 Marks)
b. Explain the concept of arrays in Java with examples. (08 Marks)
c. List different types of operators. Explain any two. (04 Marks)
- 4 a. Develop the program to calculate the average among the elements {4, 8, 10, 12} using foreach in Java. How foreach is different from for? (08 Marks)
b. What is constructor? Mention its types. Explain parameterized constructor with suitable code. (08 Marks)
c. Explain the concept of namespaces. (04 Marks)
- 5 a. Write short note on super keyword with an example. (07 Marks)
b. Compare and contrast method overloading and method overriding with suitable examples. (07 Marks)
c. Write short note on 'this' keyword with an example. (06 Marks)
- 6 a. Define exception. Explain keywords used to handle exception, with an example. (10 Marks)
b. Explain the Java garbage collector. (05 Marks)
c. Can you overload constructor and destructor? Justify with suitable program. (05 Marks)
- 7 a. Explain the concept of multithreading in Java. Explain two ways of making class threadable with examples. (10 Marks)
b. With a syntax, explain is Alive() and join() with suitable program. (10 Marks)
- 8 a. Explain the packages in Java with an example. (06 Marks)
b. Explain the interfaces in Java with suitable code. (06 Marks)
c. Describe the various levels of access protections available for packages. (08 Marks)
- 9 a. Write short notes on EventListener interface and explain any two interfaces with syntax. (08 Marks)
b. What is an eventclass? List and explain any two with syntax. (08 Marks)
c. How inner classes are used in Java? Explain. (04 Marks)
- 10 Explain the following with suitable code:
(i) JLabel (ii) JTextField (iii) JTable (iv) JButton (20 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.