



CBCS SCHEME

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17CS42

Fourth Semester B.E. Degree Examination, Jan./Feb. 2021

Object Oriented Concepts

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- List out the differences between Procedure Oriented Language and Object Oriented Language. (06 Marks)
 - What is friend function in C++? List out the rules to declare the friend function in C++. (06 Marks)
 - What is function overloading? Write a C++ program to define three overloaded functions area() to find area of circle, triangle and rectangle. (08 Marks)

OR

- Explain the various features of OOC. (06 Marks)
 - What is a constructor? Mention its types. Explain copy constructor with suitable code. (08 Marks)
 - What is an inline function? Write a C++ function to find the factorial of a given number using inline function. (06 Marks)

Module-2

- List and explain the Java Buzzwords. (08 Marks)
 - Why Java Language is Platform Independent Language? Justify your answer. (06 Marks)
 - Write a Java program to find the average and sum of following array elements {4, 8, 12, 16, 20} using foreach in Java. (06 Marks)

OR

- List the different types of operators. Explain any three. (08 Marks)
 - What is an array? Write a Java program to print sum of each row of two dimensional array.

For example :

$$\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$$

O/p should be

$$\begin{bmatrix} 6 \\ 15 \\ 24 \end{bmatrix}$$

- Explain switch case with an example. (04 Marks)

Module-3

- What is an exception? Explain exception handling in Java. (10 Marks)
 - What is package in Java? How package is created and imported, explain with an example program (including Execution steps). (10 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

- 6 a. What is an interface? Explain how an interface can be implemented with suitable code. (06 Marks)
- b. What is Inheritance? Differentiate method overloading and method overloading with suitable code. (06 Marks)
- c. Explain any four Built-in exception classes with an example program. (08 Marks)

Module-4

- 7 a. What are threads? Explain two ways of creation of threads with suitable code. (10 Marks)
- b. What is synchronization in Java? Explain synchronization can be implemented with producer-consumer example program. (10 Marks)

OR

- 8 a. What is meant by deadlock? How to avoid deadlock? Give example. (10 Marks)
- b. What is Event handling in Java? Write a Java program to demonstrate Mouse Events handling. (10 Marks)

Module-5

- 9 a. What is an applet? Explain the life cycle of an applet? (10 Marks)
- b. Explain passing parameters in Applets with suitable code. (10 Marks)

OR

- 10 Explain the following with a suitable code:
- (i) JLabel
 - (ii) JTextField
 - (iii) JList
 - (iv) JTable

(20 Marks)
