



SCHOOL OF COMPUTER SCIENCE & ENGINEERING (SCOPE)
Winter Semester 2021-2022
Continuous Assessment Test – 2 (Fresher's)

Course Name & code: Structured and Object-Oriented Programming & BCSE102L Slot: C2

Programme Name & Branch: B.Tech CSE (Common to all branches) Exam Duration: 90 min

Class Number: VL2021220505527, VL2021220504699, VL2021220504678, VL2021220504706,
VL2021220504683 Maximum Marks: 50

Faculty Name: NARAYANAN PRASANTH, JAGALINGAM P, JOSHVA DEVADAS T, SRIVANI A,
SHASHANK MOULI SATAPATHY

General instruction(s):

Answer all the questions

Q.No.	Question	Max Marks	CO	BL
1.	<p>You were asked to create a structure to store the following details of the student.</p> <p>Registration number Name Age (between 11 to 14) Address of students (for more than 10)</p> <p>i) Using function print the names of all students, who are having the age 14. ii) Using another function, print the names of all the students, who are having even registration number. iii) Using another function, print the details of the student, whose registration number entered by the user.</p> <p>To provide the solution for the above scenario, write a C program using structure and three functions.</p>	10	CO2	3
2.	<p>What is destructor? When destructor is called? With an example demonstrate and explain the execution logic of destructor. (5)</p> <p>What is inline function? Demonstrate and explain the inline function with an example. (5)</p>	10	CO3	1
3.	<p>Mr. Sunil has deposited ₹ 10000, ₹15000, ₹20000 in the banks like KVB, IB and SBI respectively. Write the C++ program with following instruction to print the amount deposited by Mr. Sunil in a particular bank.</p>	10	CO3	4

	<p>i) Create a class Bank, declare a function getBalance to return 0.</p> <p>ii) Build three subclasses and name it as KVB, IB and SBI, with a function with the same name getBalance to return the amount deposited in that particular bank.</p> <p>iii) Using the object of three banks, call the function getBalance.</p>			
4.	<p>i) Why Inheritance is required and list the advantage of it.</p> <p>ii) What do you meant by diamond problem? Using inheritance demonstrate how we can provide the solution to the problem.</p>	10	CO3	2
5.	<p>We want to calculate the total marks of each student of a class in Physics, Chemistry and Mathematics and the average marks of the class. The number of students in the class are entered by the user. Create a class named Marks with data members for roll number, name and marks. Create three other classes inheriting the Marks class, namely Physics, Chemistry and Mathematics, which are used to define marks in individual subject of each student. Roll number of each student will be generated automatically.</p>	10	CO3	4