

Total No. of Questions - [8]

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G.R. No.

Paper Code - U218-126 (BE-FR)

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S. Y. B. TECH. (COMPUTER ENGINEERING) (SEMESTER - II)

COURSE NAME : OBJECT ORIENTED PROGRAMMING

COURSE CODE: (CSUA21176)

(2017 PATTERN)

Time: [2 Hours]

[Max. Marks: 50]

Instructions to candidates:

- 1) Answer Q.1, Q.2, Q.3, Q.4, Q.5 OR Q.6, Q.7 OR Q.8
- 2) Figures to the right indicate full marks.
- 3) Use of scientific calculator is allowed
- 4) Use suitable data where ever required

Q.1a	Create an employee Class, the member data should comprise an int for storing the employee number and a float for storing the employee's compensation. Member functions should allow the user to enter this data and display it. Write a C++ Program that allows the user to enter data for three employees and display it.	[6]
	OR	
Q1.b	Write a program which uses default constructor, parameterized constructor and destructor.	[6]
Q2.a	Write a C++ program to perform following operations on an Array using operator overloading: 1. It performs range checking. 2. It allows one to be assigned to another array through the use of the assignment operator (e.g. cp1 = cp2)	[6]
	OR	
Q2.b	1. Write a C++ program to create a calculator for an arithmetic operator (+, -, *, /). The program should take two operands from user and performs the operation on those two operands depending upon the operator entered by user. Use a switch statement to select the operation. (Use Operator Overloading)	[6]
Q3.a	What is function pointer? Write a C++ program to find the sum and average of an array Arr by passing an array to a function using pointer.	[6]
	OR	
Q3.b	What is this Pointer ? How this pointer can be used in Operator overloading Explain with example?	[6]
Q4 a	How is an exception handled in C++ ? What are the advantages of using exception handling mechanism in program ?	[4]
	OR	
Q4 b	What is class Template ? Explain with example?	[4]

Q5 a	Write a menu driven program that will create a data file containing the list of telephone numbers in the following form John 23456 Ahmed 9876 Use a class object to store each set of data, access the file created and implement the following tasks I. Determine the telephone number of specified person II. Determine the name if telephone number is known	[6]
b	Write a program using insertion and extraction operator to insert and print data in a file	[4]
c	What is stream class ? Discuss any four function of same.	[4]
OR		
Q6 a	Write a C++ program to count number of words in a file	[6]
b	Explain the following file mode ios::trunk, ios::app, ios::ate, ios::binary	[4]
c	What is file pointer? Explain functions manipulating file pointers?	[4]
Q7 a	Write C++ program using STL for Stack Provide following functions: 1. Add(e) - Adds element e 2. Delete() - delete element and return it 3. Display() - Displays all elements 4. isEmpty() - check whether data structure is empty and return TRUE or FALSE 5. MakeEmpty() - recursively delete all elements from data structure	[6]
b	What is associative container? Explain any two associative container with example	[4]
c	Elaborate advantages and disadvantages of the following basic sequence containers: i) Vector ii) List	[4]
OR		
Q8 a	Create a students club for VIIT, where we can add and delete members to a club. where first student is head of the club and last is secretary of the club, the program should also print details of head and secretary, use suitable container.	[6]
b	Write a program to implement Set using STL	[4]
c	What is the purpose of Iterators? Elaborate forward, bidirectional and random access iterators with suitable examples	[4]