

Total No. of Questions - [8]

Total No. of Printed Pages [02]

G.R. No.

U218-126 (ESE)

DECEMBER 2018 / ENDSEM

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

COURSE NAME : OBJECT ORIENTED PROGRAMMING

COURSE CODE: (CSUA21176)

(2017 PATTERN)

Time: [2 Hours]

[Max. Marks: 50]

Instructions to candidates:

- 1) Answer Q.1 OR Q.2, Q.3 OR 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.1 a.	What are the features of OOP?	[6]
	OR	
b	What is copy constructor? Explain with example?	[6]
Q2 a.	Write a program in C++ to overload ++ operator to count employee in an organization (Assume required data of employee)	[6]
	OR	
b	Write a program in C++ to overload less than operator(<) to compare distance object	[6]
Q3 a.	Create a base class called manager . Derive two classes production manager & HR manager , add get_data() and display_data() in base class. Make compute_salary as a virtual function and redefine this function in the derived classes to suite their requirements.	[6]
	OR	
b.	Develop an abstract class Polygon from which derive two classes Triangle and Rectangle. each polygon should contain a function Area() . Invoke a appropriate function Area() to calculate area of all polygons.	[6]
Q4 a	What are the advantages of exception handling mechanism in OOP?	[4]
	OR	
b	Write a function template code for function abs which will convert all input value in to positive values.	[4]
Q5 a.	Assuming that a text file named FIRST.TXT contains some text written into it, write a function named vowelwords(), that reads the file FIRST.TXT and creates a new file named SECOND.TXT, to contain only those words from the file FIRST.TXT which start with a lowercase vowel (i. e., with 'a', 'e', 'i', 'o', 'u'). For example, if the file FIRST.TXT contains Carry umbrella and overcoat when it rains Then the file SECOND.TXT shall contain umbrella and overcoat it.	[6]
b.	What is file pointer ? Explain seekg() and tellg() function.	[4]

c.	How I/O Stream is different than file stream?	[4]
OR		
Q6 a.	Write a function in C++ to count and display the number of lines not starting with alphabet 'A' present in a text file "STORY.TXT". Example: If the file "STORY.TXT" contains the following lines, The roses are red. A girl is playing badminton. There is a playground. An aeroplane is in the sky. Numbers are not allowed in the password. The output will be The roses are red. There is a playground. Numbers are not allowed in the password.	[6]
b.	Explain the following file mode ios::trunk, ios::app, ios::ate, ios::binary	[4]
c.	What is file? Write down the steps for manipulating files in C++.	[4]
OR		
Q7 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.	What is STL? Explain sequential and associative containers.	[4]
c.	What is vector ? Explain any four algorithms of vector.	[4]
OR		
Q8. a	Create a dictionary with <Key,value>pair such that unique key elements are to be added ,deleted and accessed randomly use appropriate STL.	[6]
b	What is iterator ? Explain different algorithms of iterator?	[4]
c	What are features of multiset Associative container?	[4]