Total No. of Questions – [8]   Total No. of Printed Pages [02]

G.R. No. | |

Paper Code – V218-126 (BE-FS)

May 2019 / ENDSEM

S.Y. B. TECH. (COMPUTER ENIGNEERING) (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.1 a.	An Election is contested by five candidate,the candidates are numbered as 1 to 5 and voting is done by marking candidates number (Like 1,2...5) on ballot paper. Write a program to read ballots and count the votes cast to each candidates. (Use Class and Object and static variable)	[6]
	OR	
b	Write a program which uses default constructor, parameterized constructor and destructor?	[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	Write a program in C++ to handle "divide by zero" and "Multiply by zero" exception (use class and object).	[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	[6]

	Carry umbrella and overcoat when it rains Then the file SECOND.TXT shall contain umbrella and overcoat it.		
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 stream class ? discuss any four function of same?	[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.	Write a program to implement Set using STL	[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	Write a C++ Program to implement List using STL for adding an element delete an element ,insert between the list,display all elements using Iterator.	[4]	
c	What are features of multi-set Associative container?	[4]	