C. U. SHAH UNIVERSITY
Wadhwan City

FACULTY OF:- Computer Science
DEPARTMENT OF: - Master of Computer Applications
SEMESTER: -II
CODE: - 5CS02MPC1
NAME: – PROGRAMMING TECHNIQUE-III (OOCP)

Teaching and Evaluation Scheme

Subject Code	Name of the Subject	Teaching Scheme (Hours)				Credits	Evaluation Scheme							
							Theory				Practical (Marks)			
							Sessional Exam		University Exam		Internal		University	Total
		Th	Tu	Pr	Total		Marks	Hrs	Marks	Hrs	Pr/Viva	TW	Pr	
5CS02MPC1	PROGRAMMING TECHNIQUE-III (OOCP)	-	-	4	4	2	-	-	-	-	20	---	80	**100**

PRACTICAL LIST:

1.	Write a C++ program to find the sum of individual digits of a positive integer.
2.	A Fibonacci sequence is defined as follows: the first and second terms in the sequence are 0 and Subsequent terms are found by adding the preceding two terms in the sequence. Write a C++ program to generate the first n terms of the sequence.
3.	Write a C++ program to generate all the prime numbers between 1 and n ,where n is a value supplied by the user.
4.	Write C++ programs that use both recursive and non-recursive functions a. To find the factorial of a given integer. b. To find the GCD of two given integers. c. To find the nth Fibonacci number.
5.	Write a C++ program that uses functions a. To swap two integers. b. To swap two characters. c. To swap two real. Note: Use overloaded functions.
6.	Write a C++ program to find both the largest and smallest number in a list of integers.
7.	Write a C++ program to sort a list of numbers in ascending order.
8.	Write a C++ program that uses function templates
9.	Write a C++ program to sort a list of names in ascending order.
10.	Write a C++ program to implement the matrix using a class.

	a) Reading a matrix. c) Addition of matrices. b) Printing a matrix. d) Subtraction of matrices. e) Multiplication of matrices.
11.	Write a C++ program that overloads the + operator and relational operators (suitable) to perform the following operations: a) Concatenation of two strings. B)Comparison of two strings.
12.	Write a template based C++ program that determines if a particular value occurs in an array of values.
13.	Write a C++ program that uses a function to reverse the given character string in place without any duplication of characters.
14.	Write a C++ program to make the frequency count of letters in a given text.
15.	Write a C++ program to count the lines, words and characters in a given text.
16.	Write a C++ program to determine if the given string is a palindrome or not.
17.	Write a C++ program to make frequency count of words in a given text.
18.	Write a C++ program to generate Pascal's triangle.
19.	Write a C++ program to construct of pyramid of numbers.
20.	Write a C++ program to display the contents of a text file.
21.	Write a C++ program which copies one file to another.
22.	Write a C++ program to that counts the characters, lines and words in the text file.
23.	Write C++ programs that illustrate how the following forms of inheritance are supported: a) Single inheritance b) Multiple inheritance c) Multi level inheritance d) Hierarchical inheritance
24.	Write a C++ program that illustrates the order of execution of constructors and destructors when new class is derived from more than one base class.