Bachelour of Business Administration(Information System Management)
(BBA ISM Ist Sem)

Course Code	UM02CBBS73	C Programming	Credits 3
Total Credits of the Course	03	03 Hours	100 marks

Course Objectives:	This course will meet the following objectives : · a student will gain a thorough understanding of the fundamentals of C programming · a student will be able to code, compile and test C programs. · be able to take up Systems programming or Advanced C programming course.

Course Content		
Unit	Description	Weightage* (%)
1.	**Concept of Algorithm & flow Chart** Development Requirements(Needs) of Algorithm & flow chart Definition Symbols used to draw flow chart Typical examples of the flow chart and Algorithm	25
2.	**Language Fundamental** Generation of computer language, High & Low level Language, Editors	25
3.	**Logic Development** Problem Analysis Variables, expression & its manipulation Data types in high level language I/O Statements, Assignment Statements	25
4.	**Structure Programming & Advance Computing** Control Strategies , Condition & loop Statements If Else Structure, Switch Structure For loop , While loop, Do while loop Array(1-D & 2-D)	25
...	**Practical Base on :** Simple Program Control Structure – Simple If, If...Else, Nested If, Nested If. Else, Switch Case. Looping Structure – For Loop , While Loop, Do.. While Loop. Arry (ID)	

Teaching-Learning Methodology	Teaching & Learning methods include class participation, Practical demonstration, Practical Implementation ,or combinations of these.	

Practical List

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Write a 'c' program to do the following task:
1. To find out circle of area. Formula : = π r 2
2. To find out rectangle of area. Formula : = l * b
3. To find out square of area. Formula : = l * l
4. To find out triangular of area. Formula : = ½ b*h

Problems Based on 'If' Statement

4. To check whether the given number is odd or even.
6. To check whether the given number is positive or negative or zero.
7. To check whether the given number is palindrome or not.
8. Write a program that reads three positive numbers a, b, c and determines whether they can form the three sides of a triangle. If yes, determine whether the triangle will be an obtuse-angle, or a right-angle or an acute-angle triangle. If the triangle is an acute angle triangle. Determine further whether the triangle is equilateral, isosceles or scalene.
9. Write a program to do the following operation :
–Read any two positive integer operands (say op1,op2) and one character type operator (say opr). Note that opr is any mathematical operator.
--Depending upon the operator do the appropriate operation. E.g. if opr is '+' then the display the value obtained by evaluating the expression (op1+op2).

Problems Based on 'Switch' statement

10. An electric power distribution company charges its domestic consumers as follows.
Consumption Units Rate of Charge
0-100 Rs. 0.75 per unit
101-300 Rs. 75 plus Rs. 1.00 per unit excess of 100.
301-500 Rs. 275 plus Rs. 1.50 per unit excess of 300.
500 and above Rs. 575 plus Rs. 1.75 per unit excess of 500.
Write a program that read customer number & power consumed and prints the amount to be paid by the customer. Note that output should be well formatted.

Problems Based on 'For-loop' Statement

11.Write a 'C' program to find out the sum of the following series:
12. To print multiplication table from 1x1 to 10x10.
13. To compute the sum of the digits of a given positive integer number.
14. To read any five real numbers and print the average value.
15. To calculate the sum of first N natural numbers.

	16. **1** **1 2** **1 2 3** **1 2 3 4** **<u>Problems Based on Array</u>** **Write a program that will read an array of n integer elements. Say, it is A[n]. After reading an array do the following operations:** **17. Calculate the total number of zeros, positive and negative elements in an array.** **18.Find out the minimum and maximum element from the array.** **19.Find out the total number of odd elements in the array.** **20.Arrange the elements of an array in increasing order of their value.** **21.Arrange the elements of an array in decreasing order of their value.**	

Evaluation Pattern:		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Quizzes, Seminars, Assignments, Attendance (As per CBCS R.6.8.3)	15%
3.	University Examination	70%

Course Outcomes: Having completed this course, the learner will be able to	
	This is an introductory course and covers the key features of the C language and its usage. The chapters help in thoroughly understanding the C syntax. And focus on more complex concepts of the C language. This course will briefly touch upon some of the standard C library functions and the mechanism used in the implementation of the same. This course is based on industrial programming experience and extensive study of the language.

Suggested References:	
	References
	Basic Text & Reference Books: Balagurusami : Programming in ANSI C,Tata Mc Graw Hill Publication. Cooper H. Muilish H. The Spirit of C,JaicoPub.house, New Delhi. Additional References: Kernighan B.W. & Ritchie D.M The C Programming Language,Practices Hall India Kanitkar Y.P: Let us C,BPB Pub. LTD.
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On-line resources to be used if available as reference material
On-line Resources
https://www.tutorialspoint.com/cprogramming/cprogramming_pdf

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