B.COM. SEMESTER – 1		
3	MINOR 1	BUSINESS COMPUTER SCIENCE – 1 (Programming Methodology Using C Language)

Name of the Course: **Business Computer Science – 1 (Programming Methodology Using C Language)**
Course credit: **04**
Teaching Hours: **Theory: 45 (Hours) + Practical: 30 (Hours)**
Total marks: **100**
Distribution of Marks: **50 Marks semester end theory examination**
25 Marks semester end practical examination
25 Marks Internal assessments of theory (Unit:1 to 5)

Objectives:

- To introduce students to the fundamental concepts of programming using the C language.
- To enable students to write simple programs using C language.
- To provide hands-on experience in programming using C language and problem-solving skills.
- To teach students the importance of structured programming.

Learning Outcomes:

- Understand the basic concepts of programming using the C language.
- Write, compile and execute programs using C language.
- Understand and apply the concepts of control statement, Library functions in C language.
- Develop problem-solving skills using C language.
- Use structured programming techniques to write programs in C language.
- Analyze and debug simple programs written in C language.

PARTICULAR	NO. OF LECTURES
UNIT NO. 1 : PROGRAMMING DEVELOPMENT TOOLS	
• Flowchart • Algorithm	9
UNIT NO. 2 : C LANGUAGE BASICS	
• Structure of C program, • Character set, • Tokens[Keywords, Constants, Variables, Operators (arithmetic, relational, logical, conditional, increment/decrement), • Expressions and it's evaluation, • Data types (integer, char, float, long int)	9
UNIT NO. 3 : CONSOLE INPUT/OUTPUT	
• I/O Library Functions: printf(), scanf() • Format Specifiers: %c, %s, %d, %ld, %f • Backslash Codes : \a , \b , \f , \n , \r , \t , \v , \' , \" , \? , \\ , \0	9
UNIT NO. 4 :LIBRARY FUNCTIONS	
• Character I/O functions : getchar(), getch(), getche(), putchar(), putch(), gets(), puts() • Mathematical Functions: pow(), abs(), sqrt(), ceil(), floor(), mod()	9
UNIT NO. 5 : CONTROL STATEMENT(WITHOUT NESTING)	
• Decision Statements: if … else • Looping Statements: for, while, do … while	9
UNIT NO. 6 : PRACTICAL	
• Programming Algorithm, Flow Chart And Programming Exercise	30

• Exercise Using Unit 1 To 5. (In C Language)	
Total Lectures/Hours	**45+30**

Suggested Readings:

1. Programming C By Balagurusamy
2. Programming C By Yashwant Kanitkar

Note: Learners are advised to use latest edition of books.

Theory Question Paper Style:

UNIVERSITY EXAMINATION		
Sr. No.	**Particulars**	**Marks**
1	QUESTION - 1 (From Unit 1) **(OR)** QUESTION - 1 (From Unit 1)	10
2	QUESTION - 2 (From Unit 2) **(OR)** QUESTION - 2 (From Unit 2)	10
3	QUESTION - 3 (From Unit 3) **(OR)** QUESTION - 3 (From Unit 3)	10
4	QUESTION - 4 (From Unit 4) **(OR)** QUESTION - 4 (From Unit 4)	10
5	QUESTION - 5 (From Unit 5) **(OR)** QUESTION - 5 (From Unit 5)	10
Total Marks		**50**

Credit:

- 1 lecture = 1 hour = 1 credit and 2 practical = 2 hours = 1 credit
- Total 45 hours of theory teaching work per semester and additional 30 hours of practical per semester.
- Theory 3 Hours/week = 3 credits and additional practical 2 hours/week = 1 credits. Total credit is 4.

Examination:

- Theory Examination - Total marks 75 (50 marks of university examination and 25 marks of internal).
- University examination: 2 Hours
- Practical Examination - Total Marks 25 (No Internal Marks)
- University Examination: 2 Hours

Passing Standard:

- Student must obtain minimum 40% marks in theory and practical both
- Theory: Minimum 40% (minimum 20 marks in University examination and minimum 10 marks in internal)
- Practical: Minimum 40% (Minimum 10 marks in University examination)