Bachelor of Computer Applications

FIRST SEMESTER EXAMINATION

Code No.	Paper	L	T/P	Credits	Marks Internal	Marks External
THEROY PAPERS						
BCA 101	Mathematics – I	3	1	4	25	75
BCA 103	Technical Communication	3	0	3	25	75
BCA 105	Introduction to Programming Language using C	3	1	4	25	75
BCA 107	Introduction to Computers & IT	3	1	4	25	75
BCA 109	Physics	3	1	4	25	75
PRACTICALS						
BCA 151	Practical – I C Prog. Lab	0	6	3	40	60
BCA 153	Practical – II IT Lab	0	6	3	40	60
BCA 155*	Communication Skills	2	0	2	100	------
	Total	**17**	**16**	**27**	**305**	**495**

***NUES**

TOTAL MARKS : 800

Note : A Minimum of 40 Lectures is mandatory for each course.Syllabus of Bachelor of Computer Applications (BCA), approved by BCA Coordination Committee on 26th July 2011 & Sub-Committee Academic Council held 28th July 2011. W.e.f. academic session 2011-12

Paper Code: BCA 105 **L T C**

Paper Id: 20105 **3 1 4**

Paper: Introduction to Programming Language using C

Pre-requisites: None

Aim : To Understand the Programming Fundamentals and the basics of the 'C' Programming Language.

Objectives:

- To be able to build own logic for a given problem and finally develop one's own programs
- To understand the syntax and the semantics of C programming language.

INSTRUCTIONS TO PAPER SETTERS: **Maximum Marks: 75**

1. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 25 marks.
2. Apart from Question No. 1, rest of the paper shall consist of four units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be 12.5 marks.

UNIT I

C basics: C character set, Identifiers and keywords, Data types, constants, variables and arrays, declarations, expressions statements, symbolic constants, compound statements, arithmetic operators, unary operators, relational and logical operators, assignment operators, conditional operators, bit operators.

C constructs: If statement, if….else statement, if…..else if….else statement, while statement, do….while statement, for statement, switch statement, nested control statement, break operator, continue operator, comma operator, goto statement. .[T1,T2,T3]

[No. of Hrs: 11]

UNIT – II

C Functions: Functions: declaration, definition & scope, recursion, call by value, call by reference.

Storage Classes: automatic, external (global), static & registers.

Arrays: Arrays, pointers, array & pointer relationship, pointer arithmetic, dynamic memory allocation, pointer to arrays, array of pointers, pointers to functions, array of pointers to functions, Preprocessor directives: #include, #define, macro's with arguments, the operators # and ##, conditional compilations. [T1,T2,T3] **[No. of Hrs: 11]**

UNIT – III

Structures: Structures, unions, passing structure to functions, bit fields, file handling [text (ASCII), binary] [T1,T2,T3] **[No. of Hrs: 11**

UNIT – IV

String manipulation functions and other standard library functions from stdio.h, stdlib.h, conio.h, ctype.h, math.h, string.h, process.h.Usage of command line arguments. [T1, T2, T3]**[No. of Hrs: 11]**

TEXTBOOKS:

[T1]Ashok N. Kamthane, "Computer Basics and C Programming", Pearson Education.
[T2]E. BalaGuruswamy, "Programming in ANSI C", 2008.
[T3]V Rajaraman, "Computer Basics and C Programming", PHI.

REFERENCES:

[R1]Herbert Schildt, "C The Complete Reference" Fourth Edition, 2000.
[R2]Yashwant Kanetkar, "Let us C" eighth edition, 2002.
[R3]Kernighan and d. Ritchie, "The ANSI C Programming Language", 2000.
[R4]Stephenn Prata**, "**C Primer Plus" Fourth Edition, 2001.
[R5]Schaum's Outline Series, "Programming with C", 2nd Edition, 1996.