

END TERM EXAMINATION

FIRST SEMESTER [BCA] DECEMBER-2009

Paper Code: BCA105

Subject: Programming with C

Paper Id-20105

(Batch: 2005-2009)

Time : 3 Hours

Maximum Marks :75

Note: Q.1 is compulsory. Attempt one question from each unit.

Q1 Attempt all questions:- (10x2.5=25)

- (a) Why C is know as middle level language?
- (b) Explain bitwise operators.
- (c) What is array of pointers?
- (d) Explain ternary operator.
- (e) What is sentinel controlled loop?
- (f) Explain features of C language.
- (g) Differentiate between structure and union.
- (h) Explain two functions of process.h.
- (i) Give the precedence of various operators in C.
- (j) What is a macro?

UNIT-I

- Q2 (a) Explain primary data type in C language. Explain the use of comma operator with example. (3+3)
- (b) Explain exit controlled loop & entry controlled loop with example. Write a program to print Fibonacci series, up to 10 terms. (3+3.5)

OR

- Q3 (a) Explain tokens of C language briefly. Explain with example const and volatile. (3+3)
- (b) Explain the use of break and continue statement by giving example. Write a program to print sum of sin(x) series= $x-x^3/3!+x^5/5!-x^7/7!-\dots$ upto n terms. (3+3.5)

UNIT-II

- Q4 (a) What are various storage classes, illustrate their usage and scope. (6)
- (b) Write a program using for loop, for multiplication of two matrices. Explain the use of malloc and calloc functions and also give their syntax. (3+3.5)

OR

- Q5 (a) Discuss features of 'call by value' and 'call by reference'. (6)
- (b) What is recursion? Mention its benefits. Write a program to find factorial of a number using recursion. (3+3.5)

UNIT-III

- Q6 (a) Explain the use of enumerated data type by giving example. Define structure. Explain the concept of nested structure by giving example. (3+3)
- (b) Write a program to determine division of students in a class using array of structures. Make a structure having fields: name, age, roll no, subject, total. The program should read record of 10 students and calculate their division according to percentage. (6.5)

OR

- Q7 (a) Explain any five file handling functions. Write a program that copies the content of one file (message.dat) to another file (new.dat). (6)
- (b) What is bit field? Explain its usage. Explain pros and cons of using Union with example. (3+3.5)

UNIT-IV

- Q8 Give the general format for three functions for each header file:- (12.5)
- (a) string.h (b) maths.h (c) ctype.h (d) conio.h (e) stdlib.h

OR

- Q9 (a) Give the format and example the of following library functions:- (6)
- (i) Isalnum() (ii) fabs() (iii) log() (iv) fflush() (v) getch()
- (b) What is meant by library in context with programming language and what is the advantage of library function? (6.5)
