

END TERM EXAMINATION

FIRST SEMESTER [BCA] DECEMBER 2015

Paper Code: BCA-105

Subject: *Introducing to Programming Language Using C*

Time: 3 Hours

Maximum Marks: 75

Note: Attempt any five questions including Q.no.1 which is compulsory.

- Q1 (a) What do you mean by term 'Data Type'? Explain any four data types with examples. (2.5x10=25) ✓
(b) Differentiate between 'Break' and 'Exit' statements. ✓
(c) Differentiate between 'Call by Value' and 'Call by Reference'. ✓
(d) Explain the concept of 'Pointer' with the help of suitable example? ✓
(e) Write a program to swap two numbers without using third variable. ✓
(f) Explain the use of 'Continue' statements? ✓
(g) What do you mean by 'Recursive Functions'? ✓
(h) Differentiate between const char *p and char const *p.
(i) Explain the concept of 'Static Variable' with the help of suitable example.
(j) What is "Enumerated Data Type"? Explain with suitable example.
- Q2 What are the different 'Control Structures' used in C language? Explain all of them with suitable examples. (12.5)
- Q3 (a) Write a program to display first n prime numbers. (6)
(b) Write a program to calculate the factorial of given number. (6.5)
- Q4 (a) Explain the concept of 'Arrays'. How to declare & initialize 2-Dimensional array? How 2-Dimension arrays are stored in memory? Explain with example. (6)
(b) Write a program to accept a string from user. Find out whether the string is *palindrome* or not with the help of user defined function. (6.5)
- Q5 What are various 'Storage Classes' in C. Explain their concept and usage with the help of user defined function? (12.5)
- Q6 (a) What is 'File pointer'? Explain any five 'File handling Functions'. Write a program to copy contents of one text file to another text file. (6.5)
(b) Explain the concept of 'Pointer to array' with the help of suitable example. (6)
- Q7 (a) Explain the concept of 'Preprocessor Directive'? Differentiate the simple macro, macro with argument and control directives with examples? (8.5)
(b) What is the difference between 'Structure' & 'Union'? Explain with example. (4)
- Q8 (a) Write a program to count the number of vowels in a given string? (6.5)
(b) Write a program using array to read ten integers and find out total number of positive and negative numbers. (6)

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Handwritten notes on the right margin, including a box containing the numbers 35, 14, and 5.

Handwritten notes on the right margin, including the text "a = a/b" and "b = a/b" with arrows pointing to the variables.

Handwritten notes on the bottom right corner, including the text "a = a/b" and "b = a/b" with arrows pointing to the variables.