

## PURBANCHAL UNIVERSITY

2015

B. E. (Computer/E&C/Electrical)/First Semester/Final

Time: 03:00 hrs.

Full Marks: 80 /Pass Marks: 32

**BEG175CO: Computer Programming (New Course)**

*Candidates are required to give their answers in their own words as far as practicable.*

*All questions carry equal marks. The marks allotted for each sub-question is specified along its side.*

**Answer EIGHT questions.**

- 1(a) What is C? Explain the structure of C Program. 5
- (b) What is debugging and testing? Explain program documentation. 3+2
- 2(a) Write a C program to find the sum of following series. 6
- $1 + 1/2^2 + 1/3^2 + 1/4^2 + \dots + 1/n^2$
- (b) What are variable and constant? Explain with the help of examples. 4
- 3(a) What are algorithm and flowchart? Explain. 4
- (b) Write a C program that calculates LCM of two input numbers. 6
- 4(a) Explain break, continue and exit statement with example. 5
- (b) Write a program in C that calculates the sum of first N natural numbers using recursion. 5
- 5(a) Explain any four basic input-output functions. 4
- (b) Write a program to draw two concentric circles with radius 50 and 100 units. 6
- 6(a) Explain briefly call by value and call by reference with example. 5
- (b) Write a program to reverse a given string. 5
- 7(a) What is array? How will you pass array to a function? Explain with example. 1+4

**Contd. ...**

(2)

- (b) What is pointer? Write a simple program to determine the total number of vowels in a string using pointer. 1+4
- 8(a) What is structure? How will you declare an array of structure? Differentiate between structure and union. 1+2+2
- (b) What is a file? How can you open and close a data file? Explain with example. 1+4
- 9(a) Write short note on any FOUR: 4×2.5=10
- (a) Dynamic Memory Allocation
  - (b) Conditional operator
  - (c) Precedence and Associativity
  - (d) Switch statement
  - (e) Data types

