

FE / sem 4 / C BGS / ~~DEC~~ 2016 / 13-12-2016

Structure Programming Approach

QP CODE : 530203

(3 Hours)

[Total Marks: 80]

- N.B. 1. Q.no.1 is compulsory
2. Attempt any **three** out of the remaining five questions
3. Figures to **right** indicate **full** marks
4. Assume suitable data if necessary but justify the same
- Q.1. a. Explain the significance of pointers in C 4
b. What is an algorithm? How do you develop an algorithm? 4
c. Explain the following statement with example:
i. continue ii. break 4
d. Explain any two functions of string.h 4
e. Explain the following functions- floor(), ceil(), trunc(), sqrt() 4
- Q.2. a. Write a program to display prime numbers between 1 to 1000 5
b. What is recursion? Write a program to compute fibonacci series using recursion. 5
c. Write a C program to add two distances(feet-inch system) entered by user, using structures 10
- Q.3. a. Write a C program to check if the given number is a palindrome or not 6
b. Write a C program to print following pattern 6
E
E D
E D C
E D C B
E D C B A
- c. Write a program to calculate sum of digits of a given n digit number using recursion 8
- Q. 4. a. Write a program to sort given 10 numbers in ascending order 10
b. Write a program to calculate the sum of following series: 10
 $(1/1) + (2/2) + (3/3) + (4/4) + (5/5) + \dots + (n/n)$
- Q.5. a. Write a program to compute matrix multiplication and transpose of a matrix 10
b. Write a program to count number of vowels and consonants in a given sentence 10
- Q.6. a. Explain the difference between call by value and call by reference with example 8
b. Explain different storage classes 8
c. What is a file? Explain the following file handling functions in c-fopen(), fread(), fwrite() 4
