

Dr. B. R. Ambedkar University, Agra
B.C.A. (Ist – Sem.) Examination, Dec. 2015
Programming Principles & Algorithm (BCA 102)

1. a) Describe basic structure of a C program.
b) What are key words and identifiers? Write the rules for naming of identifiers in C language.
2. a) What are basic data types of C languages?
b) Write their ranges and memory space required.
3. a) What are operators? Describe all categories of operators in C language.
b) Write a program to sum all digits of a number.
4. a) Define all types of user defined functions in C language. How does function main () differ from other user defined functions.
b) Write a returnable function to calculate factorial of a number.
5. a) Define array. How does array declared and accessed in a program of C language?
b) Write a program to calculate sum of all elements of 2 dimensional array.
6. Write a program to find maximum number of N given numbers, input through keyboard.
7. Differentiate any three of the following:
 - a) Call by value & call by reference
 - b) getchar () and getch ()
 - c) while and do while
 - d) break and continue
 - e) structure and union
8. Write short notes on any three of the following:
 - a) Pointers
 - b) Pre-Processor directives
 - c) Storage Classes
 - d) Flow Chart
 - e) Complexity