

2E2303

Roll No. _____

Total No of Pages: 3

2E2303

B. Tech. II Sem. (Main) Exam., May – 2018
CS -103 Computer Programming - II

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks: 28

Instructions to Candidates:

Attempt any five questions including Question No. 1, which is Compulsory. All questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly. Use of following supporting material is permitted during examination. (Mentioned in form No.205)

1. NIL

2. NIL

Q.1 COMPULSORY

Answers for each sub-question be given in about 25 words.

[8×2=16]

- (a) Why do we include <stdio.h> in our programs?
- (b) Define a function.
- (c) How is an array represented in memory?
- (d) Differentiate between a character and a string.
- (e) Differentiate between ptr ++ and * ptr ++.
- (f) Differentiate between a structure and an array.
- (g) What do you understand by EOF?
- (h) "Structure declaration reserves memory for the structure" Comment on this statement with valid justification.

Q.2 (a) . How are strings read from the standard input device? Explain the different functions used to perform string input operation. [8]

(b) Write a program in C that replaces a given character with another character in the string. <http://www.rtuonline.com> [8]

Q.3 Write a program to create a structure with the information given below. Then read and print the data. [16]

(a) Emp_Id

(b) Name-

(i) First Name

(ii) Middle Name

(iii) Last Name

(c) Address-

(i) Area

(ii) City

(iii) State

(d) Age

(e) Salary

(f) Designation

Q.4 (a) What is the advantage of using structures? Differentiate between a structure and a Union. [8]

(b) What is dynamic memory allocation? What are the various functions in C that are used for dynamic memory allocation? Explain. [8]

Q.5 (a) Write a short note on the following functions. For each function, give a program code that demonstrates its usage- [8]

(i) fopen ()

(ii) fclose ()

(iii) fgetc ()

(iv) fseek ()

(b) Write a program to read data from the keyboard and write it to a file. Read the contents stored in the file and display it on the screen. [8]

Q.6 Write short notes on: <http://www.rtuonline.com> [4×4=16]

(i) System software

(ii) Compiler

(iii) Loader

(iv) Freeware software

Q.7 (a) Write a program using pointers to insert a value in an array. [8]

(b) Explain the difference between a null pointer and a void pointer. What do you mean by pointer arithmetic? [8]
