

R13

Code No: 111AF

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech I Year Examinations, October/November - 2016

COMPUTER PROGRAMMING

(Common to all Branches)

Time: 3hours

Max.Marks:75

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A

(25 Marks)

- 1.a) What is meant by assembly language? Give example. [2]
- b) Differentiate between pre test and post test loops. [3]
- c) What are the limitations of recursion? [2]
- d) List any three applications of arrays. [3]
- e) Give the syntax of calloc function. [2]
- f) What is the use of atoi function? [3]
- g) What is the functionality of ungetc function? [2]
- h) Give an example for self-referential structure. [3]
- i) Define data structure. [2]
- j) List the operations on enqueue and dequeue. [3]

PART-B

(50 Marks)

- 2.a) What is an algorithm? Give an example.
- b) Explain 'while' statement along with an example. [5+5]

OR

- 3.a) What is the need of type conversion? Discuss type casting.
- b) List the demerits of go to statement.
- c) Why is switch statement known as multi way selection? [3+3+4]

- 4.a) Describe parameter passing techniques to functions.
- b) With suitable examples explain storage classes. [5+5]

OR

- 5.a) Write a program to multiply two matrices.
- b) How to initialize multi dimensional arrays? Give examples. [5+5]

- 6.a) Discuss the programming applications of pointers.
- b) Explain the role of pointers in inter function communication. [5+5]

OR

- 7.a) Write a program to count number of occurrences of character in a sentence and display the count.
- b) Briefly discuss string compare functions. [5+5]

- 8.a) Differentiate between structure and union. Give examples for each.
b) With examples discuss Array of Structures and Structure of Arrays.

[5+5]

OR

- 9.a) Write a program to merge two given files and store in a target file.
b) How to handle errors in file management?

[5+5]

10.a) Write an algorithm for binary search technique.

- b) Explain the concept of selection sort using a suitable example.

[5+5]

OR

11.a) Discuss the role of structures in singly linked list implementation.

- b) Write a program to implement stack using arrays.

[5+5]

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