Code No: 121AF

R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech I Year Examinations, May - 2018
COMPUTER PROGRAMMING
(Common to CE, EEE, ME, ECE, CSE, EIE, IT, MCT, ETM, MMT, AE, AME, MIE, PTM, CEE, MSNT)

Time: 3 hours   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)	Distinguish between variables and constants. Give example.	[2]
b)	Explain the difference between break, goto and continue statements.	[3]
c)	What are the storage classes in C?	[2]
d)	Write a C program to interchange two values.	[3]
e)	Give the syntax of calloc function.	[2]
f)	What is a dangling Pointer? How it is different from normal Pointer?	[3]
g)	Write the array applications.	[2]
h)	Distinguish between text and binary files.	[3]
i)	Write brief notes on unions.	[2]
j)	What are the operations performed in linked lists	[3]

PART-B

(50 Marks)

2.   State and explain various identifiers in C program. And also discuss about operator precedence in expression evaluation with a suitable example.   [10]
OR
3.a)   Write and explain the structure of C program.
   b)   Write a program to print prime numbers up to a given number 'n'.   [5+5]

4.a)   In what way a recursive function differs from non-recursive functions? Explain.
   b)   With the help of flowchart and example program explain the while loop.   [5+5]
OR
5.a)   Define a function for determining whether a given character is a vowel or not.
   b)   Write the program for multiplication of two matrices?   [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)   Illustrate the character input/output functions with suitable examples.
   b)   What are the string manipulation functions? Explain any three of them.   [5+5]

8.a) What is the main reason for using structure? What special keyword is used in defining a structure? Illustrate with example.

b) Demonstrate how one structure can be copied to another of the same type.   [5+5]

OR

9.a) How to read from and write to a file? Explain with examples.

b) What is file? Explain about the Input and output functions of files.   [5+5]

10. Sort the following 10 elements using bubble sort technique. Write the algorithm for the same.   [10]

85 53 96 35 27 87 37 12 90 23

OR

11.a) Give brief description about storage representation on queues.

b) Write a program to implement stack using arrays.   [5+5]

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