DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY LONERE – RAIGAD – 402 103

Supplementary Examination, June 2019

Branch: B. Tech.

Subject with Subject Code: Basic Computer Programming

Marks: 60

[ICT106/206]

Date: 11/06/2019

Time: 3 Hrs.

Instructions to the Students:

- 1] Attempt any 5 Questions. Each Question Carry 12 Marks.
- 2] Figures / Structures to the right indicate full marks.
- 3] Assume suitable data, if necessary.

Q. No. 1 Attempt any THREE questions of the followings:

[12]

- With the help of suitable sketches, explain the any four symbols used in flowchart design.
- B) Draw the flowchart for the given program "A Program to find and display on the screen, the given number entered by user is either a positive or negative."
- C) Explain the various phases of process of programming in details.
- D) Write an algorithm for a program used to find greatest number among three numbers entered by user.

Q. No. 2 Attempt any THREE questions of the followings:

[12

- A) With the help of proper syntax, explain any four data types used in C.
- B) Define Keywords in C. Also enlist any six keywords used in c with its purpose.
- C) Give the definition of the variable. What are the rules a programmer has to follow for defining variables?
- D) With example explain the working of bitwise operators. Also write all the bitwise operators as per their precedence.

Q. No. 3 Attempt the following questions:

[12]

- A) Give the proper generalize syntax for the do. while, while, if...else, and for loop constructs.
- B) The mark obtained by a student in 5 different subjects is the input through the keyboard to a program. The student gets a GRADE as per the following rules:

Percentage above or equal to 60 - GRADEA

Percentage between 50 and 59 - GRADE B

Percentage between 40 and 49 - GRADE C

Percentage less than 40 - Fail

Write a program in C to calculate the GRADE obtained by the student.

C) Write a program in C to find the number entered by user is Armstrong Number or not.

undefined

Q. No. 4 Write the answer for the following questions.

[12]

- A) Define the function. Give the proper syntax for function declaration, function call and function definition.
- B) Define recursion. Write a program to find the factorial of a number entered by user using recursion.
- C) Explain the automatic and static storage class in C with respect to storage, default value, scope and life.

Q. No. 5 Solve any THREE questions of the following:

[12]

- A) What is the advantage of an array over the variable in C. Write C statements for one dimension array to do the following operations:
 - a) Set the value of the 4th component of the alpha array to 80
 - b) Set the value of the 9th component of an array to the sum of the 5th and 12th components of the alpha array.
 - c) Assign the value of 8th component of one array to the 3rd component of the other array.
- B) Write a program in C that takes two matrices of size 2 X 2 as in input from the user. Program performs addition and subtraction of two matrices and displays the result to the user.
- Write a C Program in which user entered 5 elements in one dimensional array, then print sum and average of numbers entered in one dimensional array.
- D) Write a program in C to print transpose of matrix entered by user.

Q. No. 6 Write the answer for the following questions.

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- A) Write a program to enter Student details such as Roll_No, Name, Department, age using structure.
- B) What do you mean of structure?

 Give syntax for structure in C named Customer' who is bank customer contains fields as Account_number, Cust_Name, Account_Type, and Balance_in account. Declare a variable as your name of 'struct cust1'. Assign the values for your structure as 123456, Rushikesh, Saving, 11,256 respectively.
- C) Write a program in C to print the addition of two distances (in inch-feet) system using structures.

---- END OF PAPER ----