

B.Tech I Year II Semester (R15) Regular Examinations May/June 2019

COMPUTER PROGRAMMING

(Food Technology)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) Differentiate between hardware and software with examples.
 - (b) List out relational and logical operators.
 - (c) Give the syntax of switch statement with example.
 - (d) Write any two initializations of arrays.
 - (e) What is a pointer? Differentiate between * and & with pointers.
 - (f) What are the advantages of call by reference?
 - (g) What are command line arguments?
 - (h) What is enumerated data type? Give an example.
 - (i) Write the modes and their meaning of opening a file.
 - (j) What is the use of # define preprocessor directive? Give an example.

PART – B
(Answer all five units, 5 X 10 = 50 Marks)**UNIT – I**

- 2 Discuss the advantages of algorithms and flowcharts. Develop a flowchart for finding largest of the given 'n' elements.

OR

- 3 Explain the precedence and order of evaluation of operators. Compute the result of following expressions:
- (a) $5/8 * (7 + 4)$.
 - (b) $5 \% 8 * (7 - 4)$.

UNIT – II

- 4 Write the syntax of if, nested if and if-else-if ladder. Write a C program to check whether a given number is odd or even.

OR

- 5 Discuss how do you pass single-dimensional array to a function. Write a function to return the sum of the elements. Which are passed in an array to the function?

UNIT – III

- 6 Discuss the relation between pointers and array. Write a C program to find the largest elements in the array elements using a pointer.

OR

- 7 Differentiate between call by value and call by reference. Demonstrate the difference by writing two functions to swap two elements.

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UNIT – IV

- 8 What is recursion? Write a recursive function to compute n^{th} Fibonacci number.
(n^{th} Fibonacci number is given by:

$$f(n) = f(n-1) + f(n-2).$$

$$f(0) = 1 \quad f(1) = 1).$$

OR

- 9 Differentiate between structures and unions. Write a C program to create a list of students with Roll No, Name, semester and percentage. Accept Roll No from keyboard, search and display the other details of the student.

UNIT – V

- 10 Discuss the formulated and unformatted console I/O statements in C with examples.

OR

- 11 Explain the following file handling functions in C.

(i) Fread.

(ii) Fwrite.

(iii) Fseek.

(iv) Fprintf.

(v) Fscanf.

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