

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Second Semester B.Tech Degree Examination July 2021 (2019 scheme)

Course Code: EST102**Course Name: PROGRAMMING IN C (Common to all programs)****(FN Session)**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer all Questions. Each question carries 3 Marks*

- | | | Marks |
|----|---|-------|
| 1 | Differentiate between system software and application software. | (3) |
| 2 | Differentiate between compiler and interpreter. | (3) |
| 3 | What is the importance of precedence and associativity? Write the table for operator precedence. | (3) |
| 4 | Differentiate between 'break' and 'continue' statements. | (3) |
| 5 | Explain any 3 string handling functions using examples. | (3) |
| 6 | Write a C program to find the occurrence of each element in an array. | (3) |
| 7 | Define formal parameters and actual parameters. Illustrate with an example. | (3) |
| 8 | With examples show how:
(i) an array is passed as argument of a function.
(ii) individual elements of an array is passed as argument of a function. | (3) |
| 9 | Write any three file handling functions in C. | (3) |
| 10 | Differentiate between address operator(&) and indirection(*) operator. | (3) |

PART B*Answer any one Question from each module. Each question carries 14 Marks*

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|----|--|-----|
| 11 | a) Explain different types of memory used in a computer. | (7) |
| | b) Write an algorithm to find sum of digits of a number. | (7) |

OR

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|----|--|------|
| 12 | Explain bubble sort with an example. Draw a flowchart and write pseudo code to perform bubble sort on an array of numbers. | (14) |
| 13 | a) Explain different data types supported by C language with their memory requirements. | (7) |
| | b) Write a C program to check if a number is present in a given list of numbers. If present, give location of the number otherwise insert the number in the list at the end. | (7) |

OR

- 14 a) Write a C program to find the sum of first and last digit of a number. (7)
b) What is type casting? Name the inbuilt typecasting functions available in C language. What is the difference between type casting and type conversion? (7)
- 15 a) Write a C program to perform linear search on an array of numbers. (7)
b) Write a C program to reverse a string without using string handling functions. (7)

OR

- 16 a) Write a C program to find the transpose of a matrix. (7)
b) Write a C program to print number of vowels and consonants in a string. (7)
- 17 a) What is the purpose of function declaration and function definition and function call? With examples illustrate their syntax. (7)
b) Write a C program to : (7)
(i) Create a structure containing the fields: Name, Price, Quantity, Total Amount.
(ii) Use separate functions to read and print the data

OR

- 18 a) What are different storage classes in C? Give examples for each. (7)
b) Write a C program to find sum and average of an array of integers using user defined functions. (7)
- 19 a) Explain the different modes of operations performed on a file in C language. (7)
b) Write a program in C to copy the contents of one file into another. (7)

OR

- 20 a) Explain how pointers can be passed to functions in C. (7)
b) Explain any 5 file handling functions in C? (7)
