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 complier 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:	(3)

   (i) an array is passed as argument of a function.

   (ii) individual elements of an array is passed as argument of a function.

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

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

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 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)

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