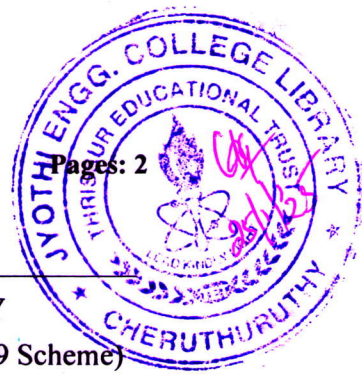F

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Reg No.:_____   Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S1 (S, FE) S2 (S, FE) Examination December 2024 (2019 Scheme)

Course Code: EST102
Course Name: PROGRAMMING IN C

Max. Marks: 100   Duration: 3 Hours

PART A

Answer all questions, each carries 3 marks.

Marks

1	Differentiate between high level and low level languages.	(3)
2	Write an algorithm to find the largest of three numbers.	(3)
3	Write the equivalent while loop for the following C code.	
	int i;	(3)
	for (i=10;i<0;--i)	
	print ("%d",i);	
4	Differentiate between assignment and equality operators?	(3)
5	Explain the different methods to declare and initialize a single dimensional character array with example.	(3)
6	Write the C code to find the length of a string without using built in function.	(3)
7	Compare structure and union in C.	(3)
8	Write the syntax for defining a function in C. Explain with example	(3)
9	Explain null pointer in C.	(3)
10	Write the purpose of file mode? Mention any four file modes.	(3)

PART B

Answer one full question from each module, each carries 14 marks.

Module I

11	a)	Explain the different types of memory used in a computer.	(8)
	b)	Write an algorithm to find reverse of an n digit number.	(6)

OR

12	a)	Explain the functional units of a computer with the help of a diagram.	(8)
	b)	Draw a flowchart to check whether the given year is leap year or not.	(6)

Module II

13 a) Write a C Program to find the sum of odd and even numbers separately between   (6)
a range.

b) Explain the difference between while loop and do while loop with example for   (8)
each.

OR

14 a) Explain the different types of operators in C with examples   (8)

b) Write a C program to generate the Fibonacci series up to 50.   (6)

Module III

15 a) Read a string (ending with a $ symbol), store it in an array and count the number   (6)
of vowels and consonants in it.

b) Explain any four string handling functions with example for each.   (8)

OR

16 a) Write a C program to sort a set of names in alphabetical order.   (9)

b) Write a C program to search a number in an array of n integer numbers.   (5)

Module IV

17 a) Write a C program to find the factorial of a number using function.   (7)

b) Write a C program to check whether a number is prime or not using function.   (7)

OR

18 a) Explain the different types of storage classes in C with examples for each.   (6)

b) Declare a structure namely Student to store the details (roll number, name,   (8)
mark_for_C) of a student. Then, write a program in C to find the average mark
obtained by the students in a class for the subject Programming in C (using the
field mark_for_C). Use array of structures to store the required data.

Module V

19 a) Create a file and perform the following   (9)

i) Write data to the file

ii) Read the data in a given file & display the file content on console

iii) append new data and display on console

b) Explain the pass by reference mechanism with an example   (5)

OR

20 a) Write a C program to swap two numbers using pointers.   (7)

b) Explain any three file handling functions in C.   (7)

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