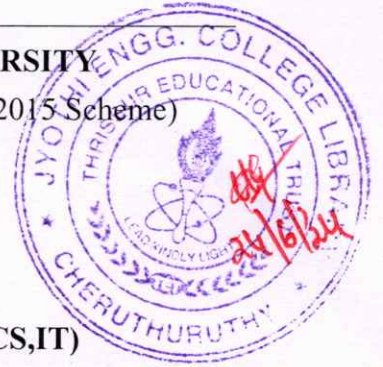


Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S1 (S,FE) S2 (S,FE) Examination May 2024 (2015 Scheme)

**Course Code: CS100****Course Name: COMPUTER PROGRAMMING (CS,IT)**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer all Questions.*

Marks

- | | | |
|----|---|-----|
| 1 | What is a variable? How are the variables declared in C? | (2) |
| 2 | Differentiate between exit- controlled and entry-controlled loops in C? | (3) |
| 3 | What are Command Line Arguments? Explain with example. | (3) |
| 4 | Explain any 3 string handling functions using examples. | (3) |
| 5 | With an example illustrate the use of conditional operator in C | (3) |
| 6 | Write a program to print the elements of an array using pointer. | (3) |
| 7 | What are the advantages of using functions in a program? | (3) |
| 8 | Write a program to find the factorial of a number using recursion. | (3) |
| 9 | Explain any two bitwise operators in C with examples. | (2) |
| 10 | With example illustrate the use of storage class specifier 'static' is used in C? | (3) |
| 11 | Write a program to perform linear search in an array? | (3) |
| 12 | What is the purpose of <i>structure</i> in C? | (2) |
| 13 | What is a pointer? List any two of its uses. | (2) |
| 14 | What is an array? How is a single dimensional array initialised in C? | (2) |
| 15 | Explain any three file handling functions in C? | (3) |

PART B*Answer any four questions. Each question carries 8 Marks*

- | | | |
|----|--|-----|
| 16 | Explain arithmetic, relational, logical and bitwise operators with examples. | (8) |
| 17 | a) Explain switch statement in C with example. | (4) |
| | b) Write a C program that gives the count of each vowel in a string. | (4) |
| 18 | Write a C program to find the transpose of a matrix. | (8) |
| 19 | a) Differentiate between structure and union using example. | (4) |

- b) Write a C program to find the length of a string with and without using string functions. (4)
- 20 a) Define formal parameters and actual parameters. Illustrate with an example. (4)
- b) Differentiate between call by value and call by reference in C. (4)

PART C

Answer any two full questions. Each carry 14 Marks

- 21 a) Write a program to implement selection sort algorithm (7)
- b) Write a program to perform binary search on a set of numbers (7)
- 22 a) What are different storage classes in C? Give examples for each. (7)
- b) Write a C program to perform Bubble sort. Illustrate the algorithm with an example. (7)
- 23 a) Write a program to copy the contents of one file into another. (7)
- b) Explain the different file opening modes in C language. (7)
