



R18 Regulation

Subject code:2E2AB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech II Semester Supplementary Examinations, June 2024

Computer Programming Using C

(Common to CE, EEE, ME & IT)

Maximum Marks: 70

Date:02.07.2024 Duration: 3 hours

- Note:
- 1.This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

| All the following questions carry equal marks | | (10X2M=20 Marks) | CO | Bloom Tx |
|---|--|------------------|----|----------|
| 1 | What are the properties of an algorithm? | | 1 | L1 |
| 2 | Distinguish while from do-while loop with its usage? | | 1 | L1 |
| 3 | Write the syntax for variable declaration? | | 2 | L1 |
| 4 | What are the different types of nonlinear data structures. | | 2 | L1 |
| 5 | What is meant by pointer to pointer? | | 3 | L1 |
| 6 | List any two differences between structure and union. | | 3 | L1 |
| 7 | What are command line arguments? Write the syntax for it. | | 4 | L1 |
| 8 | List the names of operations performed on stack. | | 4 | L1 |
| 9 | Define file? What is meant by a binary file? | | 5 | L1 |
| 10 | List file error handling functions with syntaxes. | | 5 | L1 |

Part-B

| Answer All the following questions. | | (5X10M=50Marks) | | | | | | | | | | | | |
|-------------------------------------|--|-----------------|----|----|----|----|---|---|---|---|---|--|--|--|
| 11 | Briefly explain about the different operators in C with an example. [10M] | | 1 | L2 | | | | | | | | | | |
| OR | | | | | | | | | | | | | | |
| 12 | Explain about the number system in detail with an example. [10M] | | 1 | L2 | | | | | | | | | | |
| 13 | Define a function. What are the different types of functions based on the arguments passed to it. [10M] | | 2 | L2 | | | | | | | | | | |
| OR | | | | | | | | | | | | | | |
| 14 | Perform Binary search on the following list of elements. Considering the key element to be '1'. [10M] | | 2 | L2 | | | | | | | | | | |
| | <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>10</td><td>20</td><td>30</td><td>15</td><td>12</td><td>1</td><td>6</td><td>8</td><td>7</td><td>3</td> </tr> </table> | 10 | 20 | 30 | 15 | 12 | 1 | 6 | 8 | 7 | 3 | | | |
| 10 | 20 | 30 | 15 | 12 | 1 | 6 | 8 | 7 | 3 | | | | | |
| 15 | Write a short note on recursive functions. Develop a C program that swaps two numbers using pointers. [10M] | | 3 | L2 | | | | | | | | | | |
| OR | | | | | | | | | | | | | | |
| 16 | Explain various string manipulation functions used in C with an example each. [10M] | | 3 | L2 | | | | | | | | | | |

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|----|---|---|----|
| 17 | Explain: a) pointer to structures b)self-referential structure. [5+5]M | 4 | L2 |
| | OR | | |
| 18 | Construct a queue with the following operations: insert(10),insert(20),insert(30),insert(40),delete,delete,insert(50),insert(60),insert(70), delete [10M] | 4 | L2 |
| 19 | Explain different types of file error handling functions with an example for each. [10M] | 5 | L2 |
| | OR | | |
| 20 | What are the different file I/O operations? And demonstrate them with an example program. [10M] | 5 | L2 |