



R18 Regulation
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 2E2AB

B.Tech II Semester Supplementary Examinations, October 2022

Computer Programming using C

(Common to CE,EEE,ME & IT)

Maximum Marks: 70

Date:20.10.2022 Duration: 3 hours

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 What is a low level language?
- 2 Convert $(ff)_{16}$ into Octal.
- 3 What is bubble sort? Give an example.
- 4 Consider the following C program

```
int a, b, c = 0;
void prtFun (void);
int main ()
{
    static int a = 1; /* line 1 */
    prtFun();
    a += 1;
    prtFun();
    printf ( "\n %d %d ", a, b );
}
void prtFun (void)
{
    static int a = 2; /* line 2 */
    int b = 1;
    a += ++b;
    printf ( "\n %d %d ", a, b );
}
```

- 5 What output will be generated by the given code segment?
- 6 What is the difference between array_name and &array_name?
- 7 What is a pointer to a pointer?
- 7 What is a nested structure?
- 8 Calculate the % of memory saved when bit-fields are used for the following C structure as compared to with-out use of bit-fields for the same structure? (Assuming size of int = 4)
 1. struct temp
 2. {
 3. int a : 1;
 4. int b : 2;
 5. int c : 4;
 6. int d : 4;
 7. }s;

- 9 What are the functions can be used to read text files and functions that can be used to write text files into a disk?
- 10 What are the different types of error handling in C?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Write the function squeeze(char s1[], char s2[]) that deletes each character in s1 that matches any character in the string s2. (10 Marks)

OR

- 12 Write a "c program" to create a simple calculator. (10 Marks)
- 13 a) With an example, explain how to declare and initialize a single dimensional array. (5 Marks)
- b) List the advantages and disadvantages of array. (5 Marks)

OR

- 14 a) What is recursive function? Write syntax for recursive functions. (5 Marks)
- b) Differentiate between recursion and non-recursion. (5 marks)
- 15 What is an array of pointers and what is pointer to an array? Explain in detail with example. (10 Marks)

OR

- 16 a) Explain string input output functions with an example. (5 marks)
- b) What are string manipulation functions? Describe with examples. (5 marks)
- 17 Describe about the functions and structures. (10 Marks)

OR

- 18 a) Write a program to demonstrate initialization of a union. (5 marks)
- b) Explain the difference between structure and union. (5 marks)
- 19 a) Explain the file input/output functions with example. (5 marks)
- b) Explain the Working with binary files with example. (5 marks)

OR

- 20 Write a program to copy the content from one file to another file using fseek() function. (10 Marks)