

AMRIT CAMPUS
Mid-Term Exam-2075

BSc CSIT/Frist Semester/Computer Programming

Candidates are required to answer the questions in their own words as far as practicable

Full Marks: 60

Pass Marks: 24

Time: 3 hrs

Set "B"

Long Answer Questions

Attempt any 2 questions

(10X2 = 20)

Write syntax to declare and initialize 2-dimensional array? With suitable program to display largest element of array.

An electricity board charges the following rates for the use of electricity:

- For the first 200 units; 80 P per unit
- For the next 100 units; 90 P per unit
- Beyond 300 units;
- Rs. 1 per unit All users are charged a minimum of Rs. 100 as meter charge.

If the total amount is more than Rs. 400, then an additional charge of 15% of total amount is charged. Write program to read the names of users and number of units consumed and printout the charges with names.

What do you mean by Keywords and Identifiers? Why we need them? Also write the rules for declaring identifiers with suitable example of each.

Short Answer Questions

Attempt any 8 questions

(8X5 = 40)

4. What do you mean by a problem analysis? What are the properties of a good algorithm? Explain the Compilation and Execution of any C program?
5. How to define variables in C. How Variables are different with Constants? Support your answers with examples each.
6. Which of the following array declarations or initialization are valid or not & why?

- a. `int num[3] = {0, 2, 5};` → X
- b. `int num [] = {1, 5};` → ✓
- c. `int marks [2] = {0, 1, 2};` → X
- d. `int m [3] [5] = {0, 0};` → X
- e. `char city [9] = "Kathmandu";` → ✓

7. What do you mean by operators? Differentiate Logical operators with bitwise operators.
8. What do you mean by control statements? Explain switch case statement with suitable syntax and example.
9. Find errors, if any, in the following program. Correct it and also rewrite it.

```
#define <stdio.h>
float main()
{
    do;
    int name = 0;
    do {name = 1;
    printf("I can score 50 in \n this C exam");}
    while (name = 1)
    return 0.0;
}
```

10. Why loop statements are needed? Compare between different loop statements.
11. Write a C program to display the pattern like right angle triangle using an asterisk. (use for loop)

```
*
**
***
****
```

12. Write short notes on:

- a. User defined data types
- b. Prefix and Postfix operators

num[10]
0-1
max[10]
max=num[10]