

510

Seat No. _____

B. C. A. (Sem. II) Examination
October / November - 2003
Programming Language : Paper - I

Time : 3 Hours]

[Total Marks : 70

- Instructions :
- (1) There are 5 (five) questions. Q. 1 is compulsory.
 - (2) Figures on the right indicate marks for the questions.
 - (3) Answer each new question (Q.1, Q. 2..) on a new page.
 - (4) Do not inter-mix the options.
 - (5) Mention your options clearly.

[5]

Q1. Answer in brief

[10]

- (1) What is the significance of main() function?
- (2) Explain how strings are represented in C.
- (3) The function can have more than one return statement and using them we can return more than one value from function. Validate this statement.
- (4) How can comment be included within a C program?
- (5) What are static variables?
- (6) Explain the meaning of function prototype : float func1 (float, int).
- (7) How many values can function return?
- (8) If an array is declared as char s[10][100]; what is referred to by s[5] ?
- (9) What is keyword? Give any 3 keywords.
- (10) Give the difference between = and ==.

[6]

Q - 2.

A. Explain function prototype in detail with example.

[4]

OR

A. Describe storage classes in C.

B. What is an operator? Describe several types of operators and their precedence levels in 'C'.

[8]

C. Write the C language code for matrix multiplication of two 3*3 matrix.

[6]

OR

C. Write a program to find maximum element from the two-dimensional array.

[7]

Q - 3.

A. Explain multidimensional array in C Write different ways to initialize two-dimensional array within its declaration?

[4]

OR

[1400]

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[Contd..

P-0610]

1

[Contd..

A Rewrite the following code, removing errors if any, and then show the output:

```

I. #include<stdio.h>
void main()
{
    int i = 1;
    switch(i)
    {
        default : printf("Hello!");
        case 1 : printf(" how");
        case 2 : printf(" are");
        case 3 : printf(" you?");
    }
}

```

```

ii. #include<stdio.h>
void increment()
{
    static int s=0;
    auto int a=0;
    a++;
    s++;
    printf("s=%d\n",s);
    printf("a=%d\n",a);
}
void main()
{
    increment();
    increment();
    increment();
}

```

B Explain Call by value and Call by reference with examples. [5]

C. Write a program to interchange the value of two variables using function. [6]

OR

C Write an interactive program that takes the value of Basic pay of employee and according to following conventions. Calculate the gross salary of an employee.

If basic < 5000 hra=20% of basic, da=2% of basic, deduction=100
 If basic >= 5000 hra=30% of basic, da=5% of basic, deduction=300
 If basic > 10000 hra=40% of basic, da=10% of basic, deduction=400

Gross salary = basic + hra + da - deduction.
Print basic, hra, da, deduction and gross salary for an employee in the proper format.

Q - 4.

A. What do you understand by a pointer to the structure? Explain how can one access member variables of structure using pointer to the structure with example. [4]

B. Given the following information, what will be the result of the statements? [5]

Variable Name	Address	Contents
P	2568	222
Q	4284	2568
R	6666	4284
A[0]	8120	232
A[10]	8355	2658
X	2658	903!

- **R =
- *(&Q) =
- &(*R) =
- *(&A[10]) =
- (Q == *P) Is it True/False?

C. Define a structure cricket(Player name, team name, batting average). [6]
Write a program to read the information about 5 players and print average batting average of players in proper format.

OR

C. Use a structure book (book_id, title, price). Take array of the structure and input value of the member variables of book and display output in proper format.

Q – 5.

A. Explain fopen() function with all its modes. [7]

B. Write a program that appends one file into another. [8]

OR

B. Write a program to count number of capital letters from a file.

[5]

[6]

ind
ee.

100
300
400

r format.

[4]
nple.

[5]

ontd..

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3

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1

[Contd..