Control Statement

1. Describe different control statement available in c.

2. Input an integer through keyboard and check whether it is palindrome.

2. Print the following pattern.

  
Array

1. WAP to Merge two sorted arrays, and print the merged array. The resultant array should be sorted.

2. Implement the strcpy(str1, str2) without using library function.

Function

1. WAP to find the GCD using recursive function.
2. What is function? What is the role of function declaration in C program?
3. Find if any error in the following programs. If there is no error, write the output.

|  |  |
| --- | --- |
| void main()  {  int i=0;  for(j=0;j<5;j++)  {  func();  }  printf(“%d”, I);  }  void fnc()  { static i=0;  Printf(“%d”, i);  i++;  } | void main()  {  Int a=20, b=30;  {  Int sum=a+b;    }  Printf(“Sum of %d and %d is : ”, a, b , sum);  } |

Pointer

1. Compare and contrast between call by value and call by reference.
2. WAP for multiplication of two 4x4 matrices using pointer.
3. What are the advantages of using dynamic memory allocation? Compare and contrast between malloc() and calloc().
4. Find the output of the following program.

|  |
| --- |
| Void main()  { int a;  int \*p=&a;  int \*pa[20];  printf(“Size of p=%d”, sizeof(p));  printf(“Size of pa= %d ”, sizeof(pa))  } |

Structure and Union

1. Compare and contrast between structure and union.
2. Explain the different way of structure declaration & initialization with example.
3. WAP by using structure to calculate SPI of each student in a semester and average SPI of the class. The student's record should include student's name, scholar numbers, marks obtained in each paper.

File Handling in C

1. What is the use File management in C?
2. Write the syntax for fopen()? Discuss the different file opening mode available in C.

C++ and OOP

1. What is Class and Object? Illustrate with an example.
2. How Object Oriented Programming Language is different from Procedural Language? Explain the four characteristics of Object Oriented Programming?