1 Generate a correct version for the following erroneous program.

```
#include<Stdio.H>
 Int main(){
        Int a, b;
        Float div;
        Scanf("%f%f", &a, &b);
        Div=a/b;
        Printf("%f", Div);
        Return  0;
    }
```

2 Mention the data type of each of the data given below

-1, 1.0, '1', "1", 1

3 Find the values of the following variables

```
int a= 17%5;
int b=17.0/5;
float c=17/5;
float d=17.0/5;
int e=3*4+12/4-3;
```

4 Find output when input values of b are 4, 5 , 10 and 12, respectively

```
scanf("%d", &b);
printf("Begin\n");
if (b>=5)
    printf("UIU\n");
else if(b<=5)
    printf("CSE\n");
else if ((b>=2)||(b<10))
    printf("COMPUTER\n");
else if ((b>2)&&(b<=10))
    printf("NICE\n");
else
    printf("Bye\n");
printf("End");
```

5 Write the following program using the if…else statement instead of switch…case

```
#include<stdio.h>
int main(){
        int choice;
        scanf("%d", &choice);
        switch(choice){
            case 1:
                printf("CSE\n");
            case 2:
                printf("UIU\n");
                break;
            case 3:
                printf("BYE");
                break;
            default:
                printf("EXIT");
         }
        return 0;
    }
```

6 Show manual tracing for the following code segment

```
sum=0;
sign=1;
for(i=2; i<=6; i=i+2){
    sum=sum+sign*i;
    printf("%d    %d\n", i, sum);
```

```
    sign=-sign;
}
printf("%d", sum);
```

7 Write a program to calculate the sum of n positive floating point numbers (skip negative numbers) taken from keyboard.

For example, n=3 (taken from keyboard)

| Input | Sum | Count |
|---|---|---|
| 10 | 10 | 1 |
| -20 | 10 | 1 |
| 30 | 10+30=40 | 2 |
| -5 | 40 | 2 |
| 15 | 40+15=55 | 3 (Since Count = n, stop the number input) |

Output: 55

8 Show manual tracing for the following code segment

```
for(i=2; i>=1; i--){
    for (j=1; j<=i; j++){
        printf("%d   %d\n", i, j);
    }
    printf("%d   %d\n", i, j);
}
printf("%d   %d", i, j);
```

9 Write a program to perform the following operations

i) Declare an integer array of size 100
ii) Read n integer numbers from keyboard and store them in the array, where n is input integer from keyboard
iii) Find the minimum value among all the numbers stored in the array.
iv) Display the index number(s) containing the minimum.

Sample input and outputs are given below:

| Input | Array A | Output Minimum | Output Index Number(s) in Array A |
|---|---|---|---|
| n=3 | 10 5 20 | 5 | 1 |
| n=4 | 10 4 20 4 | 4 | 1 3 |
| n=5 | 10 -1 4 -3 -2 | -3 | 3 |

10 Show the manual tracing for the following code segment

```
int F[6]={0};
int i;
F[0]=1;
F[1]=1;
for(i=2; i<=5; i++){
   F[i]=F[i-1]+F[i-2];
   printf("%d   %d    %d\n", F[i-2], F[i-1], F[i]);
}
printf("%d   %d    %d", F[i-2], F[i-1], F[i-1]+F[i-2]);
```

Write a program to display the even numbers stored in the integer array A[n][n], where n is taken from keyboard. Here, all the integer numbers for array A are read from keyboard. Finally print the summation of all the numbers on monitor.