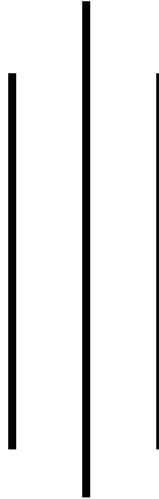


TRIBHUVAN UNIVERSITY

PATAN MULTIPLE CAMPUS

PATAN DHOKA, LALITPUR



C PROGRAMMING (BIT 102)

LAB 1

SUBMITTED BY

NAME: SURESH DAHAL

CLASS: BIT – I/I

ROLL NO: 23

DATE: 2080/10/07

SUBMITTED TO

DADHI RAM GHIMIRE

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CHECKED BY

1. Write a C program to print your name, date of birth and mobile number using printf() and puts() functions.

a) ALGORITHM

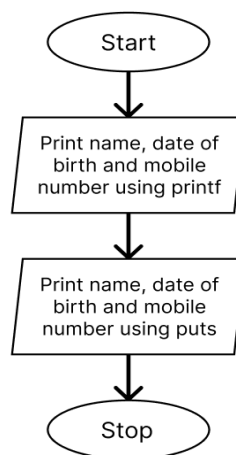
STEP 1: Start

STEP 2: Print name, date of birth and mobile number using printf function

STEP 3: Print name, date of birth and mobile number using puts function

STEP 4: Stop

b) FLOWCHART



c) PROGRAM

```
#include<stdio.h>

int main() {

printf("Name: Suresh Dahal\nDate of Birth: 1999/01/01\nMobile: 9841234567\nAddress: Kathmandu\n");
puts("\nName: Suresh Dahal\nDate of Birth: 1999/01/01\nMobile: 9841234567\nAddress: Kathmandu\n");

return 0;
}
```

d) OUTPUT

```
PS C:\Users\suresh\C programs> .\a.exe
Name: Suresh Dahal
Date of Birth: 1999/01/01
Mobile: 9841234567
Address: Kathmandu

Name: Suresh Dahal
Date of Birth: 1999/01/01
Mobile: 9841234567
Address: Kathmandu
```

2. Write a C program to display size in bytes of different data types using sizeof() operator.

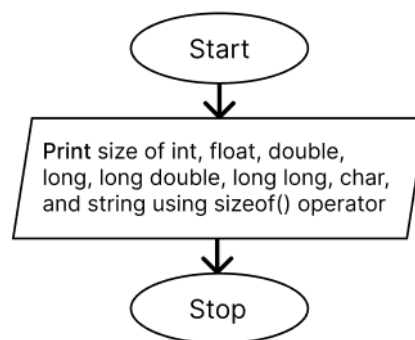
a) ALGORITHM

STEP 1: Start

STEP 2: Print size of different data types using sizeof() operator

STEP 3: Stop

b) FLOWCHART



c) PROGRAM

```
#include <stdio.h>

int main() {

    char name[20];

    printf("Size of char: %d\n", sizeof(char));
    printf("Size of int: %d\n", sizeof(int));
    printf("Size of float: %d\n", sizeof(float));
    printf("Size of double: %d\n", sizeof(double));
    printf("Size of long: %d\n", sizeof(long));
    printf("Size of long long: %d\n", sizeof(long long));
    printf("Size of long double: %d\n", sizeof(long double));
    printf("Size of name string: %d\n", sizeof(char name[10]));

    return 0;
}
```

d) OUTPUT

```
PS C:\Users\suresh\C\programs> .\a.exe
Size of char: 1
Size of int: 4
Size of float: 4
Size of double: 8
Size of long: 4
Size of long long: 8
Size of long double: 12
Size of name string: 20
```

3. Write algorithm, flow-chart and program to compute the area and circumference of a circle with given radius r as input defining as constant (Note: $\text{Area} = \pi r^2$)

a. ALGORITHM

STEP 1: Start

STEP 2: Define PI

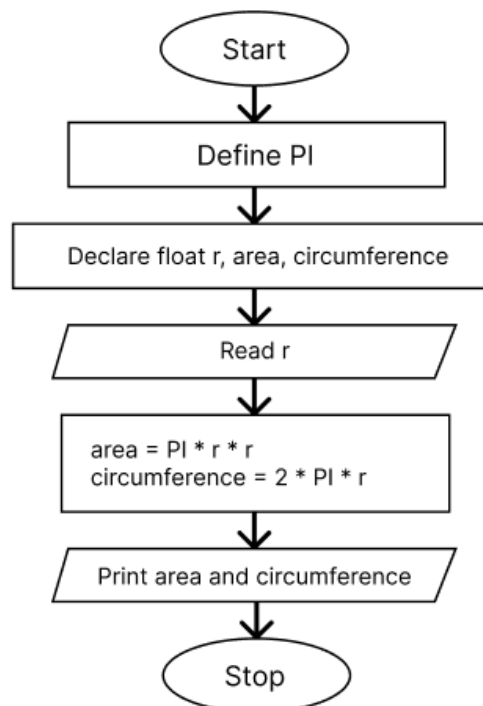
STEP 3: Declare variables r, area, and circumference with float type

STEP 4: Calculate $\text{area} = \text{PI} * r * r$ and $\text{circumference} = 2 * \text{PI} * r$

STEP 5: Print area and circumference

STEP 6: Stop

b. FLOWCHART



c. PROGRAM

```
#include <stdio.h>

int main() {
    float r, area, circumference;

    printf("Enter radius of circle: ");
    scanf("%f", &r);

    area = 3.14 * r * r;
    circumference = 2 * 3.14 * r;

    printf("Area of circle: %f\n", area);
    printf("Circumference of circle: %f\n", circumference);

    return 0;
}
```

d. OUTPUT

```
PS C:\Users\suresh\C programs> .\a.exe
Enter radius of circle: 5
Area of circle: 78.500000
Circumference of circle: 31.400000
```

4. Write a C program to convert specified no of days into years, months, weeks and days. (Note: Ignore leap year.)

a. ALGORITHM

STEP 1: Start

STEP 2: Declare variables total_days, years, months, and weeks

STEP 3: Read total_days

STEP 4: Find years, months, weeks and days as:

years = total_days/365

total_days %= 365

months = total_days/30

total_days %= 30

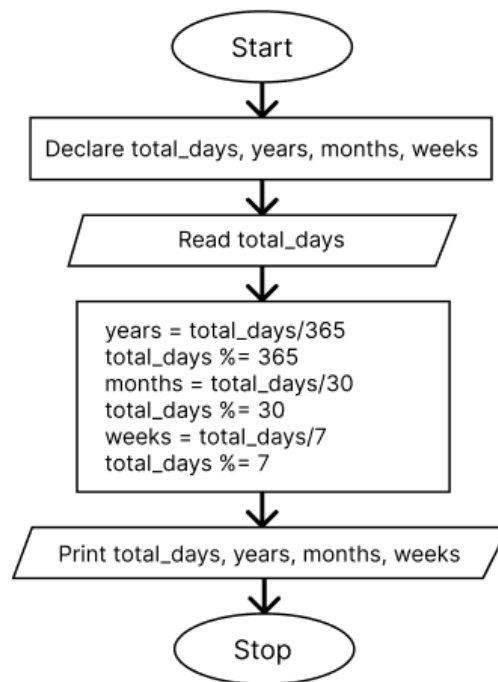
weeks = total_days/7

total_days %= 7

STEP 5: Print years, months, weeks and total_days

STEP 6: Stop

b. FLOWCHART



c. PROGRAM

```
#include <stdio.h>

int main()
{
    int total_days, years, months, weeks;

    printf("Enter total days: ");
    scanf("%d", &total_days);

    years = total_days / 365;
    total_days %= 365;
    months = total_days / 30;
    total_days %= 30;
    weeks = total_days / 7;
    total_days %= 7;

    printf("Years: %d\n", years);
    printf("Months: %d\n", months);
    printf("Weeks: %d\n", weeks);
    printf("Days: %d\n", total_days);

    return 0;
}
```

d. OUTPUT

```
PS C:\Users\suresh\C programs> .\a.exe
Enter total days: 512
Years: 1
Months: 4
Weeks: 3
Days: 6
```