

Chapter 3

Activity 3.1:

```
#include <stdio.h>
void main()
{
    int age;
    printf("Enter your age: ");
    scanf("%d", &age);
    if(age >=13 && age<=19)
    {
        printf("Teenager");
    }
}
```

Activity 3.2:

```
#include <stdio.h>
void main()
{
    int year;
    printf("Enter any year: ");
    scanf("%d", &year);
    if (year % 4 == 0)
    {
        printf("Leap Year");
    }
}
```

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Activity 3.3:

```
#include <stdio.h>
void main()
{
    float temperature;
    printf("Enter your temperature: ");
    scanf("%f", &temperature);
    if (temperature > 98.6)
        printf("You have fever.");
    else
        printf("You don't have fever.");
}
```

Activity 3.4:

```
#include <stdio.h>
void main()
```

```

float percentage;
printf("Enter your percentage: ");
scanf("%f", &percentage);
if (percentage >= 80)
    printf("You are eligible to apply in BSSE program.");
else if (percentage >= 70)
    printf("You are eligible to apply in BSCS program.");
else if (percentage >= 60)
    printf("You are eligible to apply in BSIT program.");
else
    printf("You are not eligible.");
}

```

Activity 3.5:

```

#include <stdio.h>
void main()
{
    int num1, num2, choice;
    printf("Enter first number: ");
    scanf("%d", &num1);
    printf("Enter second number: ");
    scanf("%d", &num2);
    printf("Enter your choice from range 1-4: ");
    scanf("%d", &choice);
    if (choice == 1)
        printf("Addition of two integers; %d ", num1+num2);
    else if (choice == 2)
        printf("Subtraction of two integers; %d ", num1-num2);
    else if (choice == 3)
        printf("Multiplication of two integers; %d ", num1*num2);
    else if (choice == 4)
        printf("Division of two integers; %d ", num1/num2);
    else
        printf("Invalid choice");
}

```

Handwritten notes: 5, 4, 3, 20, 5

Activity 3.6:

```

#include <stdio.h>
#include <math.h>
void main()
{
    int choice;
    printf("1- Area of triangle. \n2- Area of parallelogram. \n");
    printf("3- Area of rhombus. \n4- Area of trapezium. \n");
    printf("Enter your choice from range 1-4: ");
    scanf("%d", &choice);
    if (choice == 1)
    {
        float a, b, c, s, area;
        printf("Enter sides of a triangle : ");
        scanf("%f%f%f", &a, &b, &c);
    }
}

```

```
s = (a+b+c)/2;  
area = sqrt(s*(s-a)*(s-b)*(s-c));  
printf("Area of the triangle = %f\n", area);
```



```
}  
else if (choice == 2)  
{  
    float base, altitude, area;  
    printf("Enter base and altitude of the given Parallelogram: ");  
    scanf("%f%f", &base, &altitude);  
    area = base * altitude;  
    printf("Area of Parallelogram is: %f\n", area);
```

```
}  
else if (choice == 3)  
{  
    float diagonal1, diagonal2, area;  
    printf("Enter diagonals of the given rhombus: \n ");  
    scanf("%f%f", &diagonal1, &diagonal2);  
    area = 0.5 * diagonal1 * diagonal2;  
    printf("Area of rhombus is: %f\n", area);
```

```
}  
else if (choice == 4)  
{  
    float a, b, h, area;  
    printf("Enter the value for two bases & height of the trapezium: \n");  
    scanf("%f%f%f", &a, &b, &h);  
    area = 0.5 * (a + b) * h;  
    printf("Area of the trapezium is: %f\n", area);
```

```
}  
else  
    printf("Invalid choice \n");
```