15 If-Else Programs in C with Solutions

1. Even / Odd

```
#include <stdio.h>
int main() {
    int n;
    scanf("%d", &n);
    if (n % 2 == 0)
        printf("Even\n");
    else
        printf("Odd\n");
    return 0;
}
```

2. Positive, Negative, Zero

```
#include <stdio.h>
int main() {
    int n;
    scanf("%d", &n);
    if (n == 0) printf("Zero\n");
    else if (n > 0) printf("Positive\n");
    else printf("Negative\n");
    return 0;
}
```

3. Larger of Two Numbers

```
#include <stdio.h>
int main() {
    int a, b;
    scanf("%d %d", &a, &b);
    if (a > b) printf("%d is larger\n", a);
    else if (b > a) printf("%d is larger\n", b);
    else printf("Equal\n");
    return 0;
}
```

4. Largest of Three Numbers

```
#include <stdio.h>
int main() {
    int a, b, c;
    scanf("%d %d %d", &a, &b, &c);
    if (a >= b && a >= c) printf("%d\n", a);
    else if (b >= a && b >= c) printf("%d\n", b);
    else printf("%d\n", c);
    return 0;
}
```

5. Leap Year

```
#include <stdio.h>
int main() {
    int y;
    scanf("%d", &y);
    if ((y % 400 == 0) || (y % 4 == 0 && y % 100 != 0))
        printf("Leap Year\n");
    else
        printf("Not Leap Year\n");
    return 0;
```

```
}
```

6. Grade Calculator

```
#include <stdio.h>
int main() {
    int marks;
    scanf("%d", &marks);
    if (marks < 0 || marks > 100) {
        printf("Invalid marks\n");
        return 0;
    }
    if (marks >= 90) printf("Grade: A\n");
    else if (marks >= 75) printf("Grade: B\n");
    else if (marks >= 50) printf("Grade: C\n");
    else if (marks >= 33) printf("Grade: D\n");
    else printf("Grade: F\n");

    if (marks >= 33) printf("Pass\n");
    else printf("Fail\n");
    return 0;
}
```

7. Vowel or Consonant

```
#include <stdio.h>
#include <ctype.h>
int main() {
    char ch;
    scanf(" %c", &ch);
    if (!isalpha(ch)) {
        printf("Invalid input\n");
        return 0;
    }
    ch = tolower(ch);
    if (ch=='a'||ch=='e'||ch=='i'||ch=='o'||ch=='u')
        printf("Vowel\n");
    else
        printf("Consonant\n");
    return 0;
}
```

8. Simple Calculator

```
#include <stdio.h>
int main() {
    double a, b;
    char op;
    scanf("%lf %lf %c", &a, &b, &op);
    if (op == '+') printf("%.2lf\n", a + b);
    else if (op == '-') printf("%.2lf\n", a - b);
    else if (op == '*') printf("%.2lf\n", a * b);
    else if (op == '/') {
        if (b == 0) printf("Error: Division by zero\n");
        else printf("%.2lf\n", a / b);
    }
    else if (op == '%') {
        if ((int)b == 0) printf("Error: Modulo by zero\n");
        else printf("%d\n", (int)a % (int)b);
    }
    else printf("Invalid operator\n");
    return 0;
}
```

9. FizzBuzz

```
#include <stdio.h>
int main() {
```

```
    int n;
    scanf("%d", &n);
    if (n % 3 == 0 && n % 5 == 0) printf("FizzBuzz\n");
    else if (n % 3 == 0) printf("Fizz\n");
    else if (n % 5 == 0) printf("Buzz\n");
    else printf("%d\n", n);
    return 0;
}
```

10. Triangle Validity & Type

```
#include <stdio.h>
int main() {
    int a, b, c;
    scanf("%d %d %d", &a, &b, &c);
    if (a <= 0 || b <= 0 || c <= 0) {
        printf("Invalid sides\n");
        return 0;
    }
    if (a+b>c && a+c>b && b+c>a) {
        if (a==b && b==c) printf("Equilateral\n");
        else if (a==b || b==c || a==c) printf("Isosceles\n");
        else printf("Scalene\n");
    } else {
        printf("Not a triangle\n");
    }
    return 0;
}
```

11. Days in a Month

```
#include <stdio.h>
int main() {
    int m, y, days;
    scanf("%d %d", &m, &y);
    if (m < 1 || m > 12) {
        printf("Invalid month\n");
        return 0;
    }
    if (m==1||m==3||m==5||m==7||m==8||m==10||m==12) days = 31;
    else if (m==4||m==6||m==9||m==11) days = 30;
    else {
        if ((y%400==0) || (y%4==0 && y%100!=0)) days = 29;
        else days = 28;
    }
    printf("%d\n", days);
    return 0;
}
```

12. Point Quadrant

```
#include <stdio.h>
int main() {
    int x, y;
    scanf("%d %d", &x, &y);
    if (x==0 && y==0) printf("Origin\n");
    else if (x==0) printf("Y-axis\n");
    else if (y==0) printf("X-axis\n");
    else if (x>0 && y>0) printf("1st Quadrant\n");
    else if (x<0 && y>0) printf("2nd Quadrant\n");
    else if (x<0 && y<0) printf("3rd Quadrant\n");
    else printf("4th Quadrant\n");
    return 0;
}
```

13. Password Check

```
#include <stdio.h>
```

```c
#include <string.h>
int main() {
    char pass[50];
    scanf("%s", pass);
    if (strcmp(pass, "Rupesh123") == 0)
        printf("Access granted\n");
    else
        printf("Access denied\n");
    return 0;
}
```

14. Marks with Boundaries

```c
#include <stdio.h>
int main() {
    int m1, m2, m3;
    scanf("%d %d %d", &m1, &m2, &m3);
    if (m1<0||m1>100||m2<0||m2>100||m3<0||m3>100) {
        printf("Invalid marks\n");
        return 0;
    }
    int total = m1+m2+m3;
    float per = total/3.0;
    printf("Total: %d\n", total);
    printf("Percentage: %.2f\n", per);

    if (m1<33||m2<33||m3<33) {
        printf("Fail\n");
    } else {
        printf("Pass\n");
        if (per>=90) printf("Grade: A\n");
        else if (per>=75) printf("Grade: B\n");
        else if (per>=50) printf("Grade: C\n");
        else printf("Grade: D\n");
    }
    return 0;
}
```

15. Palindrome Number

```c
#include <stdio.h>
int main() {
    int n, rev=0, temp;
    scanf("%d", &n);
    if (n < 0) {
        printf("Not Palindrome\n");
        return 0;
    }
    temp = n;
    while (temp > 0) {
        rev = rev*10 + temp%10;
        temp /= 10;
    }
    if (rev == n) printf("Palindrome\n");
    else printf("Not Palindrome\n");
    return 0;
}
```