

# ★ INDEX ★

No.	Title	Page No.	Date	Staff Member's Signature
1.	Write a program to understand the basic datatype of input output.	29	10/12/19	Jai 07/01/2020
2.	write a program C an operator expression	31 20	24-12-19	Jai 21/01
3.	Practical - 3			
3.	Write a C-program to find wheather the enter year is a leap year or not.	33	24/12/19	
4.	Write a program to print the number upto 50.	40	21-1-20	Jai 11/2/20
5.	Write a program to find the largest of 3 number.	45	2-20	

## Output:

Enter your roll number:  
1813

Enter your name:  
Ashish

Enter your mobile number:  
9769274289

Enter your grade:  
B

Enter your percentage  
69.40

your grade is : e B  
your percentage : 69.40  
your roll number:  
your name : Ashish  
your mobile number: 9769274289

## Practical -1.

029

Aim: Write a program to understand the basic datatype of input output.

Source code -

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

5

```
int roll;
char name[40];
long int mob;
char grade;
char add;
float per;
clrscr();
printf ("***** Demonstration of datatype part");
printf ("Enter your roll number:\n");
scanf ("%d", &roll);
printf ("Enter your name:\n");
scanf ("%s", &name);
printf ("Enter your mobile number:\n");
scanf ("%s", &mob);
printf ("Enter your grade:\n");
scanf ("%s", &grade);
printf ("Enter your percentage:\n");
scanf ("%f", &per);
```

```

printf("your grade is : %c\n", grade);
printf("your percentage is : %.f\n", per);
printf("your roll number is : %d\n", roll);
printf("your mobile number is : %d\n", mno);
printf("your name is : %s\n", name);
getch();

```

3

Program 2 :- Area of circle.

Source code:-

```

#include <stdio.h>
#include <conio.h>

Void main()
{
    float pi, r, a;
    clrscr();
    pi = 3.142;
    printf("Enter radius : ");
    scanf("%f", &r);
    a = pi * r * r;
    printf("Area of circle : %f", a);
}

```

Output:

Enter radius: 5.0  
Area of circle: 78.550000

~~Answers~~

Output:-

~~Enter 1<sup>st</sup> number: 8  
Enter 2<sup>nd</sup> number: 2  
Addition of two numbers: 10  
Subtraction of two numbers: 6  
Multiplication of two numbers: 16  
Division of two numbers: 4~~

Practical-2.

Q. Write a program that will show the use of various different type of operations.

A. Arithmetic operation  
Source code:-

```
#include < stdio.h>
#include < conio.h>
void main()
{
    int num1, num2, add, sub, mul, div;
    clrscr();
    printf("Enter 1st number:");
    scanf("%d", &num1);
    printf("Enter second number:");
    scanf("%d", &num2);
    add = num1 + num2;
    printf("Addition of two numbers: %d\n", add);
    sub = num1 - num2;
    printf("Subtraction of two numbers: %d\n", sub);
    mul = num1 * num2;
    printf("Multiplication of two numbers: %d\n", mul);
    div = num1 / num2;
    printf("Division of 2 numbers: %d (%d, div),\n"
    getch());
}
```

y.

## Algorithm

→ Write a program in C to explain how to solve linear equation

Step 1:- Declare the variable a, b, c & integer

Step 2:- Store the value of a as 5 & b as 15

Step 3:- Now consider the who is greater use ternary operator to find

Step 4:- Use print function to display the output

Q.  
Output:  
15.

→ It includes stdio.h  
→ include <conio.h>  
void main()

E

```
int a,b,x;
clrscr();
a=5;
b=10;
x=(a>b)? a:b;
clrscr();
printf("%d",x);
getch();
```

032

Output :-

Enter a year: 2016

Leap year

Enter a year: 2017

Not a leap year.

### Practical - 3

033

Aim:- Write a program to find whether the entered year is a leap year or not.

Source code:-

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

void main()
{
    int n,
    d;
    clrscr();
    printf("Enter a year: ");
    scanf("%d", &n);

    if (n%4==0)
    {
        printf("Leap year");
    }
    else:
        printf("Not a leap year");
    getch();
}
```

Program 2:- To find even and odd

Algorithm:-

Step 1:- Specify the header file needed in the program  
 Step 2:- Inside the void main block define 1 variable

Step 3:- Ask the user to enter value and store it in variable n.

Step 4:- If the number is divisible by 2 then it is even number else odd number.

Code:-

```
#include <stdio.h>
#include <conio.h>
Void main()
```

{

int n;

clrscr();

printf("Enter the value of n: ");

scanf("%d", &n);

If (n%2 == 0)

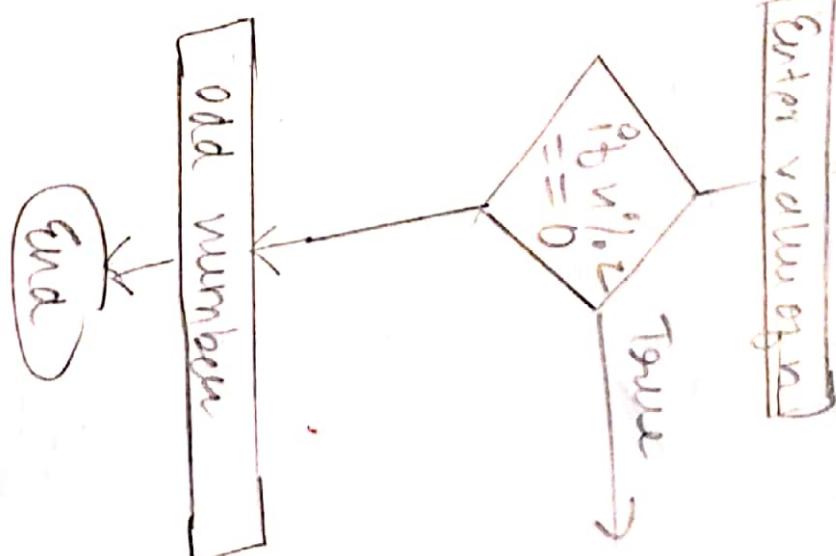
printf("Even number")

else:

printf("Odd number");

getch();

Output:-  
 Enter the value of n: 4  
 Even number  
 Enter the value of n: 5  
 Odd number



Start



Integer



Vowels

Constant



Y

Output:-  
Enter a alphabetic character: a  
Entered character is vowel

Enter an Alphabetic character: b  
Entered character is constant.

Program 3:- To check whether is a vowels or long vowel

Code:-  
#include <stdio.h>  
#include <conio.h>  
void main()  
{

```
char ch;
clrscr();
printf("Enter an Alphabet");
scanf("%c", &ch);
if (ch == 'A' || ch == 'E' || ch == 'I' || ch == 'O' || ch == 'U')
    ch = 'o';
else
    printf("The entered character is vowel");
else
    printf("The entered character is consonant");
```

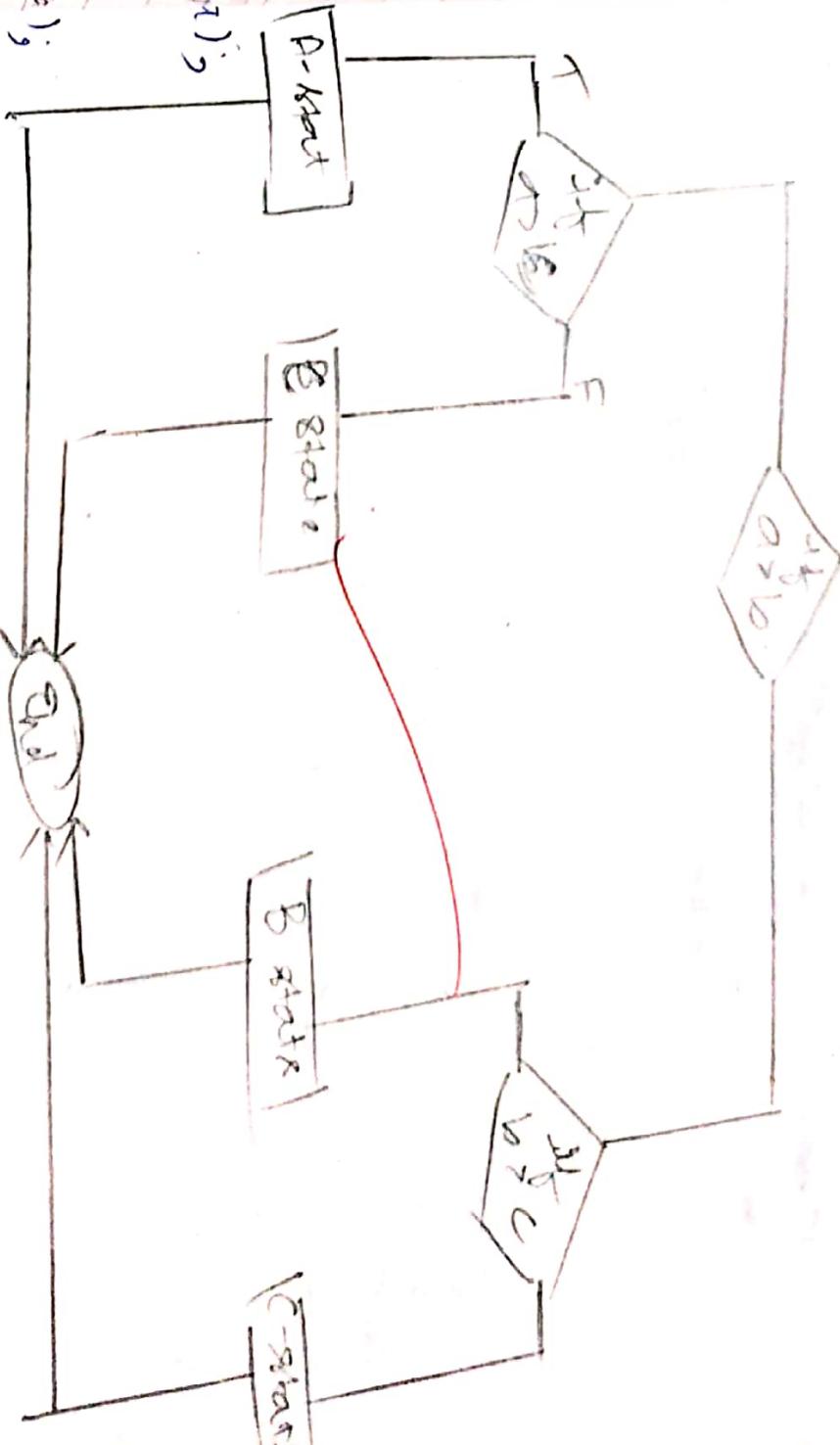
3.

Greater of 3 numbers (method 4)

Code :-

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a, b, c;
    clrscr();
    printf("Enter value of a,b,c: ");
    scanf("%d%d%d", &a, &b, &c);
    if (a > b)
        if (a > c)
            printf("a is largest");
        else
            printf("c is largest");
    else
        if (b > c)
            printf("b is largest");
        else
            printf("c is largest");
}
```

Flowchart



~~Output  
Enter single digit no.: 5  
Five.~~

Program to enter single digit number from keyboard and print the digit in word form

```
Code-
#include < stdio.h >
#include < conio.h >
Void main()
{
    int n;
    clrscr();
    printf("Enter a number : ");
    scanf("%d", &n);
    if (n == 0)
        printf("In zero");
    else if (n == 1)
        printf("In one");
    else if (n == 2)
        printf("In two");
    else if (n == 3)
        printf("In three");
    else if (n == 4)
        printf("In four");
    else if (n == 5)
        printf("In five");
    else if (n == 6)
        printf("In six");
    else if (n == 7)
        printf("In seven");
    else if (n == 8)
        printf("In eight");
}
```

```

else if (n == 9)
    printf ("\\n Nine");
else
    printf ("Enter single digit number");
getch();

```

Q. Program to perform Arithmetic operation using switch case

$$10 + 5 = 15$$

~~Output:~~  
 Enter your choice : 1  
~~Enter the value of a: 5~~  
~~Enter the value of b: 10~~

Code:-

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int n, a, b;
    clrscr();
    printf ("\\n 1. Addition \\n 2. Subtraction \\n 3. Division \\n 4. Multiplication");
}
```

```

    printf ("\\n Enter your choice : ");
    scanf ("%d", &n);
    if (n == 1)
        a = 5, b = 10;
    else if (n == 2)
        a = 10, b = 5;
    else if (n == 3)
        a = 10, b = 10;
    else if (n == 4)
        a = 5, b = 10;
    else
        printf ("\\n Invalid choice");
    getch();
}

```

Q.

print ("\\n Enter the value of a");  
 scanf ("%d", &a);  
 print ("\\n Enter value of b");  
 scanf ("%d", &b);  
 if (a > b)
 a = b;

switch (ch)

case 1:

res = n1 + n2;  
printf("Addition is %d", res);  
break;

case 2:

res = n1 - n2;  
printf("Subtraction is %d", res);  
break;

case 3:

res = n1 \* n2;  
~~printf("Multiplication is %d", res);~~  
break;

case 4:

res = n1 / n2;  
~~printf("Division is %d", res);~~  
break;

default:  
printf("Enter valid choice");

getch();

g.

Final note

## E80 Practical-4

Q1. Program to print number upto 50.

Code

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i;
    clrscr();
    for (i=2; i<=50; i+=2)
        printf("%d\n", i);
    getch();
}
```

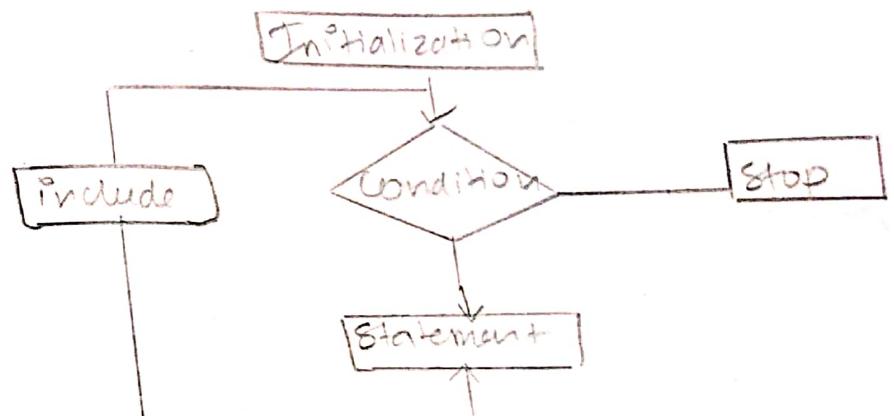
3.

Algorithm:-

1. Start
2. Include appropriate libraries
3. Use for conditional loop to iterate the declared variable till 50
4. Increment the iterating variable by 1.
5. Point the output.

Output:-

2	4	6	8	10	12	14	16	18	20
22	24	26	28	30	32	34	36	38	40
42	44	46	48	50					



Q1

continous  
stop.

- Q. Write a program to show the number is Armstrong  
no. or not  
#include <stdio.h>  
#include <conio.h>  
void main()

Statement  
variable

```
int n, dig, ans=0, t;
clrscr();
printf("Enter Number: ");
scanf("%d", &n);
t=n;
while(n>0)
```

```
dig=n%10;
ans=ans+(dig*dig*dig);
```

n=n/10.

Output:  
 Enter number: 153  
 153 is Armstrong number.  
 Enter number: 20  
 20 is not a Armstrong number.  
 4.  
 5.

```
if (t==ans)
  printf("%d is Armstrong", t);
else
  printf("%d is not Armstrong", t);
getch();
```

Output :-

\* \* \*  
 \* \* \*  
 \* \* \*  
 \* \* \*  
 \* \* \*  
 \* \* \*  
 \* \* \*  
 \* \* \*  
 \* \* \*

Ques:-

We write a program to obtain following output.

\* \* \*  
 \* \* \*  
 \* \* \*  
 \* \* \*  
 \* \* \*  
 \* \* \*

Algorithm:

Step 1: Initialize two variable with datatype integer.  
 Step 2: Use nested conditional statement And check if  
 is less than equal to 5 & increment by 1.  
 Step 3: In another condition check value starts from  
 1 & less than equal to previous variable &  
 increment by 1.

Step 4: print \*

Code:-

```
#include<stdio.h>
#include<conio.h>
void main()
{
  int i, j;
  clrscr();
  for(i=1, j=5, i++)
  {
    for(j=1, j<=i, j++)
      *
  }
}
```

```

        printf('*');
    }
    printf("\n");
    getch();
}

```

Write a program to obtain following output

1				
2	2			
3	3	3		
4	4	4	4	
5	5	5	5	5

Source code:

```

#include<stdio.h>
#include<conio.h>
void main()
{
    int i, j;
    clrscr();
    for(i=1, i<=j, ++i)
    {
        printf("%d", i);
        printf("\n");
        getch();
    }
}

```

3.

Q. No

Write a program to obtain following output

Source code:-

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

```
void main()
```

```
{
```

```
    int i, j, k; i <= k;
```

```
    clrscr();
```

```
    for (j = 1, j <= 5, j++)
```

```
{
```

```
        for (i = 1, i <= j, i++)
```

```
{
```

```
            printf ("%d\t", k);
```

```
k++;
```

```
}
```

```
    printf ("\n");
```

```
    getch();
```

```
3.
```

Algorithm:-

Step1:- Initialize the three variable with datatype `int`

Step2:- Use nested for conditional statement and check if it is less than equal to 5 and increment by 1

Step3:- Use another for conditional statement which starts from 1 and less than equal to previous conditional and increment by 1.

Step4:- Print the variable (`k`) with integer datatype and increment it by 1.

Step5:- Stop.

1	2	3
4	5	6
7	8	9 10
11	12	14 15

Output:- Enter the element into array.

7  
5  
6  
4  
3  
2  
1

Entered array elements are: 3 4 5 6 7

Sum of elements is : 25.

NC

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

Output:- Enter the value in array 2.

```
user():
    printf("Enter 10 values in array");
    for (i=0; i<10; i++)
        scanf("%d", &num[i]);
    for (i=0; i<10; i++)
        if (num[i] > 10)
            num[i] = 10;
    for (i=1; i<10; i++)
        if (num[i] < 0)
            num[i] = 0;
    for (i=0; i<10; i++)
        if (num[i] > 10)
            num[i] = 10;
    for (i=0; i<10; i++)
        if (num[i] < 0)
            num[i] = 0;
```

6  
7  
8  
9  
10  
11  
12  
13

Largest number is : 13.

```
y
printf("The largest number is %d", y);
getch();
```

Output:-

Enter the value into array.

-3  
25  
22  
55

11  
19  
20

5. Find the number of positive number in the array.

$\rightarrow \#include <stdio.h>$

$\rightarrow \text{Include } <\text{conio.h}>$

$\rightarrow \text{void main() }$

int l, num[10], p;

clrscr();

printf("Enter the value into array.");

for (i=0; i<10; i++)

scanf("%d", &num[i]);

p=0;

No. of positive number present are .

Output:-  
Enter the value in array  
2  
3  
4  
5  
6  
7  
8  
9  
10

047

```
for (i=1; i<10; i++)
{
    if (num[i] > 0)
        p = p + 1;
}
```

No. of odd number is ; 5.

Q. Find the no. of positive number in the array , p

4. Find the no. of odd number .

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    int i, num[10];
    printf("Enter the value into array");
    for (i=0; i<10; i++)
        scanf("%d", &num[i]);
    p=0;
    for (i=0; i<10; i++)
    {
        if (num[i]>0)
            p = p + 1;
    }
}
```

~~540~~

printf("In no. of odd number is %d", p);  
getch();

g.

Brij  
11/2/2020