**Decision Control Statements**

**Assignment – 3**

**1.** **#include<stdio.h>**

**int main()**

**{**

**int a;**

**printf("ENTER A NO=");**

**scanf("%d",&a);**

**if(a>=0)**

**{**

**printf("POSITIVE ");**

**}**

**else**

**{**

**printf("NON-POSITIVE");**

**}**

**return 0;**

**}**

**2.** **#include<stdio.h>**

**int main()**

**{**

**int a;**

**printf("ENTER A NO=");**

**scanf("%d",&a);**

**if(a%5==0)**

**{**

**printf("DIVISIBLE BY 5");**

**}**

**else**

**{**

**printf("NOT DIVISIBLE BY 5");**

**}**

**return 0;**

**}**

**3.** **#include<stdio.h>**

**int main()**

**{**

**int a;**

**printf("ENTER A NO=");**

**scanf("%d",&a);**

**if(a%2==0)**

**{**

**printf("EVEN");**

**}**

**else**

**{**

**printf("ODD");**

**}**

**return 0;**

**}**

**4.** **#include<stdio.h>**

**int main()**

**{**

**int a;**

**printf("ENTER A NO=");**

**scanf("%d",&a);**

**if((a&1)==0)**

**{**

**printf("EVEN");**

**}**

**else**

**{**

**printf("ODD");**

**}**

**return 0;**

**}**

**5.** **#include<stdio.h>**

**int main()**

**{**

**int a;**

**printf("ENTER NOs=");**

**scanf("%d",&a);**

**if(a>99 && a<=1000)**

**{**

**printf("3 DIGIT NO");**

**}**

**else**

**{**

**printf("NOT A 3 DIGIT NO");**

**}**

**return 0;**

**}**

**6.** **#include<stdio.h>**

**int main()**

**{**

**int a,b,c;**

**printf("ENTER FIRST NO=");**

**scanf("%d",&a);**

**printf("\n");**

**printf("ENTER SECOND NO=");**

**scanf("%d",&b);**

**if(a>b)**

**{**

**printf("A IS GREATER");**

**}**

**if(b>a)**

**{**

**printf("B IS GREATER");**

**}**

**if(a==b)**

**{**

**printf("BOTH ARE SAME");**

**}**

**return 0;**

**}**

**7.** **#include<stdio.h>**

**int main()**

**{**

**float a,b1,b2,c,roots;**

**printf("ENTER COEFFICIENT OF b1=");**

**scanf("%f",&b1);**

**printf("\n");**

**printf("ENTER COEFFICIENT OF b2=");**

**scanf("%f",&b2);**

**printf("\n");**

**printf("ENTER COEFFICIENT OF a=");**

**scanf("%f",&a);**

**printf("\n");**

**printf("ENTER COEFFICIENT OF c=");**

**scanf("%f",&c);**

**printf("\n");**

**roots=b1\*b2-4\*a\*c; //quadratic equation roots formula**

**if(roots>0)**

**{**

**printf("ROOTS ARE REAL=%f",roots);**

**}**

**if(roots==0)**

**{**

**printf("ROOTS ARE EQUAL=%f",roots);**

**}**

**if(roots<0)**

**{**

**printf("ROOTS ARE IMAGINARY=%f",roots);**

**}**

**return 0;**

**}**

**8.** **#include<stdio.h>**

**int main()**

**{**

**int a;**

**printf("ENTER YEAR=");**

**scanf("%d",&a);**

**if(a%400==0 || a%100==0 || a%4==0)**

**{**

**printf("LEAP YEAR");**

**}**

**else**

**{**

**printf("NOT A LEAP YEAR");**

**}**

**return 0;**

**}**

**9.** **#include<stdio.h>**

**int main()**

**{**

**float n1, n2, n3;**

**printf("Enter three numbers: ");**

**scanf("%f %f %f", &n1, &n2, &n3);**

**if (n1 >= n2)**

**{**

**if (n1 >= n3)**

**printf("%f is the largest number.",n1);**

**else**

**printf("%f is the largest number.",n3);**

**}**

**else**

**{**

**if (n2 >= n3)**

**printf("%f is the largest number.",n2);**

**else**

**printf("%f is the largest number.",n3);**

**}**

**return 0;**

**}**

**10.** **#include<stdio.h>**

**int main()**

**{**

**float cost,sell,profit,loss,pp,lp;**

**printf("ENTER COST PRICE Rs=");**

**scanf("%f",&cost);**

**printf("\n");**

**printf("ENTER SELLING PRICE Rs=");**

**scanf("%f",&sell);**

**if(sell>cost)**

**{**

**profit=sell-cost;**

**pp=((profit \*100)/cost);**

**printf("PROFIT %f",pp);**

**}**

**if(cost>sell)**

**{**

**loss=cost-sell;**

**lp=((loss \*100)/cost);**

**printf("LOSS %f",lp);**

**}**

**return 0;**

**}**

**11.** **#include<stdio.h>**

**int main()**

**{**

**float m1,m2,m3,m4,m5,total;**

**printf("ENTER SUBJECT 1=");**

**scanf("%f",&m1);**

**printf("\n");**

**printf("ENTER SUBJECT 2=");**

**scanf("%f",&m2);**

**printf("\n");**

**printf("ENTER SUBJECT 3=");**

**scanf("%f",&m3);**

**printf("\n");**

**printf("ENTER SUBJECT 4=");**

**scanf("%f",&m4);**

**printf("\n");**

**printf("ENTER SUBJECT 5=");**

**scanf("%f",&m5);**

**printf("\n");**

**if(m1>=33 && m2>=33 && m3>=33 && m4>=33 && m5>=33)**

**{**

**printf("PASSED");**

**}**

**else**

**{**

**printf("FAIL");**

**}**

**return 0;**

**}**

**12.** **#include<stdio.h>**

**#include<math.h>**

**int main()**

**{**

**char c;**

**printf("ENTER AN ALPHABET=");**

**scanf("%c",&c);**

**printf("\n");**

**if(c>='A' && c<='Z')**

**{**

**printf("YOU ENTERED AN UPPERCASE ALPHABET");**

**}**

**else**

**{**

**printf("YOU ENTERED AN LOWERCASE ALPHABET");**

**}**

**return 0;**

**}**

**13.** **#include<stdio.h>**

**int main()**

**{**

**int a;**

**printf("ENTER NO=");**

**scanf("%d",&a);**

**printf("\n");**

**if(a%3==0 ^ 2==0)**

**{**

**printf("NUMBER IS DIVISIBLE EITHER BY 3 AND 2,OR BOTH");**

**}**

**else**

**{**

**printf("NUMBER IS NOT DIVISIBLE BY EITHER 3 or 2");**

**}**

**return 0;**

**}**

**14.** **#include<stdio.h>**

**int main()**

**{**

**int a,n;**

**printf("ENTER NO=");**

**scanf("%d",&a);**

**printf("\n");**

**if(a%7==0 ^ 3==0)**

**{**

**printf("NUMBER IS DIVISIBLE EITHER BY 3 OR 7,OR BOTH");**

**}**

**else**

**{**

**printf("NUMBER IS NOT DIVISIBLE BY EITHER 3 or 7");**

**}**

**return 0;**

**}**

**15.** **#include<stdio.h>**

**int main()**

**{**

**int a;**

**printf("ENTER NUMBER=");**

**scanf("%d",&a);**

**printf("\n");**

**if(a>0)**

**{**

**printf("NUMBER IS POSITIVE");**

**}**

**if(a==0)**

**{**

**printf("NUMBER IS ZERO");**

**}**

**if(a<0)**

**{**

**printf("NUMBER IS NEGATIVE");**

**}**

**return 0;**

**}**

**16.** **#include<stdio.h>**

**int main()**

**{**

**char c;**

**printf("ENTER AN ALPHABET/DIGIT/SPECIAL CHARACTER=");**

**scanf("%c",&c);**

**printf("\n");**

**if(c>='A' && c<='Z')**

**{**

**printf("YOU ENTERED AN UPPERCASE ALPHABET");**

**}**

**else if(c>='a' && c<='z')**

**{**

**printf("YOU ENTERED AN LOWERCASE ALPHABET");**

**}**

**else if(c>='0'&& c<='9')**

**{**

**printf("YOU ENTERED A DIGIT");**

**}**

**else**

**{**

**printf("SPECIAL CHARACTER");**

**}**

**return 0;**

**}**

**17.** **#include<stdio.h>**

**int main()**

**{**

**int a,b,c;**

**printf("ENTER FIRST SIDE LENGTH=");**

**scanf("%d",&a);**

**printf("\n");**

**printf("ENTER SECOND SIDE LENGTH=");**

**scanf("%d",&b);**

**printf("\n");**

**printf("ENTER THIRD SIDE LENGTH=");**

**scanf("%d",&c);**

**printf("\n");**

**if(a+b>c || b+c>a || c+a>b)**

**{**

**printf("VALID TRIANGLE");**

**}**

**else**

**{**

**printf("INVALID TRIANGLE");**

**}**

**return 0;**

**}**

**18.** **#include<stdio.h>**

**int main()**

**{**

**int a;**

**printf("ENTER MONTH=");**

**scanf("%d",&a);**

**printf("\n");**

**if (a==1 || a==3 || a==5 || a==7 || a==8 || a==10 || a==12)**

**{**

**printf("TOTAL NO OF 31 DAYS");**

**}**

**else if (a==4 || a==6 || a==9 || a==11)**

**{**

**printf("30 Days.");**

**}**

**else if(a==2)**

**{**

**printf("TOTAL NO OF 30 DAYS");**

**}**

**else**

**{**

**printf("INVALID MONTH");**

**}**

**return 0;**

**}**