**ASSIGNMENT 3**

1) #include<stdio.h>

int main(){

int a;

printf("Enter number: ");

scanf("%d", &a);

if(a>0) printf("Positive");

else printf("non-positive");

}

2) #include<stdio.h>

int main(){

int a;

printf("Enter number: ");

scanf("%d", &a);

if(a%5==0) printf("Divisible by 5");

else printf("Not divisible by 5");

}

3) #include<stdio.h>

int main(){

int a;

printf("Enter number: ");

scanf("%d", &a);

if(a%2==0) printf("Even");

else printf("Odd");

}

5) #include<stdio.h>

int main(){

int a;

printf("Enter number: ");

scanf("%d", &a);

if((a>99) && (a<1000)) printf("Three-digit number");

else printf("Not a three digit number");

}

6) #include<stdio.h>

int main(){

int a, b;

printf("Enter numbers: ");

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

if(a>b) printf("%d is greater", a);

else if(b>a) printf("%d is greater", b);

else printf("Both are same");

}

7) #include<stdio.h>

int main(){

int a, b, c, det;

printf("Enter coefficients: ");

scanf("%d %d %d", &a, &b, &c);

det=(b\*b)-(4\*a\*c);

if(det>=0) printf("Roots are real and distinct");

else if(det==0) printf("Roots are real and equal");

else printf("Roots are imaginary");

}

8) #include<stdio.h>

int main(){

int year;

printf("Enter year: ");

scanf("%d", &year);

if(year%4==0) printf("Leap year");

else printf("Not a leap year");

}

9) #include<stdio.h>

int main(){

int a, b, c;

printf("Enter numbers: ");

scanf("%d %d %d", &a, &b, &c);

if(a>=b){

if(a>=c){

printf("%d is greatest among all", a);

} else if(c>=a){

if(c>=b){

printf("%d is greatest among all", c);

}

}

} else if(b>=a){

if(b>=c){

printf("%d is greatest among all", b);

} else if(c>=a){

if(c>=b){

printf("%d is greatest among all", c);

}

}

}

}

10) #include<stdio.h>

int main(){

int cp, sp;

printf("Enter cost price and selling price: ");

scanf("%d %d", &cp, &sp);

if(sp>cp){

int profit=sp-cp;

printf("Profit= %d\n", profit);

int pp=profit\*100 / cp;

printf("Proft percentage is %d", pp);

}

else {

int loss=cp-sp;

printf("Loss= %d\n", loss);

int lp=loss\*100 / cp;

printf("Loss percentage is %d%% ", lp);

}

}

11) #include<stdio.h>

int main(){

int a, b, c, d, e;

printf("Enter marks: ");

scanf("%d %d %d %d %d", &a, &b, &c, &d, &e);

if((a<33) || (b<33) || (c<33) || (d<33) || (e<33)){

printf("Failed");

}

else{

printf("Passed");

}

}

12) #include<stdio.h>

int main(){

char c;

scanf("%c", &c);

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

printf("Uppercase");

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

printf("Lowercase");

} else printf("Not a valid character");

}

13) #include<stdio.h>

int main(){

int a;

scanf("%d", &a);

if((a%3==0) && (a%2==0)){

printf("%d is divisible by both 3 and 2", a);

}

else printf("Not divisible by both 3 and 2");

}

14) #include<stdio.h>

int main(){

int a;

scanf("%d", &a);

if((a%7==0) || (a%3==0)){

printf("%d is divisible by either 7 or 3", a);

}

else printf("Not divisible by either 7 and 3");

}

15) #include<stdio.h>

int main(){

int a;

scanf("%d", &a);

if(a>0){

printf("%d is positive", a);

}

else if(a<0) printf("%d is negative", a);

else printf("Zero");

}

16) #include<stdio.h>

int main(){

char a;

scanf("%c", &a);

if(a>=65 && a<=90){

printf("Character is an uppercase alphabet");

} else if(a>=97 && a<=122){

printf("Character is a lowercase alphabet");

} else if(a>=48 && a<=57){

printf("Character is a digit");

} else printf("Character is a special character");

}

17) #include<stdio.h>

int main(){

int a, b, c;

scanf("%d %d %d", &a,&b, &c);

if( (a<(b+c)) || (b<(a+c)) || (c<(a+b))){

printf("Triangle is valid");

} else printf("Triangle is not valid");

}

18) #include<stdio.h>

int main(){

int mon;

scanf("%d", &mon);

if(mon==1 || mon==3 || mon==5 || mon==7 || mon==8 || mon==10 || mon==12){

printf("31 days");

} else if(mon==2){

printf("28 days");

} else printf("30 days");

}