**ASSIGNMENT 7**

***Q1. Write a program to check whether a given number is positive or non-positive.***

*#include <stdio.h>*

*int main()*

*{*

*int num;*

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

*if(num>=0)*

*{*

*printf("The number is positive.");*

*}*

*else*

*{*

*printf("The number is non-positive.");*

*}*

*return 0;*

*}*

***Q2. Write a program to check whether a given number is divisible by 5 or not.***

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

*int main()*

*{*

*int num;*

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

*if(num%5==0)*

*{*

*printf("The number is divisible by 5.");*

*}*

*else*

*{*

*printf("The number is not divisible by 5.");*

*}*

*return 0;*

*}*

***Q3. Write a program to check whether a given number is even or odd.***

*#include <stdio.h>*

*int main()*

*{*

*int num;*

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

*if(num%2==0)*

*{*

*printf("The number is even.");*

*}*

*else*

*{*

*printf("The number is odd.");*

*}*

*return 0;*

*}*

***Q4. Write a program to check whether a given number is even or odd without using the modulus operator.***

*#include <stdio.h>*

*int main()*

*{*

*int num;*

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

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

*{*

*printf("The number is even.");*

*}*

*else*

*{*

*printf("The number is odd.");*

*}*

*return 0;*

*}*

***Q5. Write a program to check whether a given number is a three digit number or not.***

*#include <stdio.h>*

*int main()*

*{*

*int num,count=0,sum=0;*

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

*while(num>0)*

*{*

*sum=sum\*10+num%10;*

*num=num/10;*

*count++;*

*}*

*if(count==3)*

*{*

*printf("It is a 3-digit number.");*

*}*

*else*

*{*

*printf("It is not a 3-digit number.");*

*}*

*return 0;*

*}*

***Q6. Write a program to find greater between two numbers. Print one number if both numbers are the same.***

*#include <stdio.h>*

*int main()*

*{*

*int a,b;*

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

*if(a>=b)*

*{*

*printf("%d is greater number.",a);*

*}*

*else*

*{*

*printf("%d is greater number.",b);*

*}*

*return 0;*

*}*

***Q7. Write a program which takes the cost price and selling price of a product from the user. Now calculate and print profit or loss percentage.***

*#include <stdio.h>*

*int main()*

*{*

*int cp,sp;*

*float profit,loss;*

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

*if(sp>cp)*

*{*

*profit=(float)(sp-cp)/cp\*100;*

*printf("Profit perecntage=%f",profit);*

*}*

*else if (sp<cp)*

*{*

*loss=(float)(cp-sp)/cp\*100;*

*printf("Loss perecntage=%f",loss);*

*}*

*else*

*{*

*printf("There is no profit and loss.");*

*}*

*return 0;*

*}*

***Q8. Write a program to take marks of 5 subjects from the user. Assume marks are given out of 100 and passing marks is 33. Now display whether the candidate passed the examination or failed.***

*#include <stdio.h>*

*int main()*

*{*

*int s1,s2,s3,s4,s5,total;*

*float per;*

*printf("Enter the marks of five subjects out of 100.\n");*

*scanf("%d%d%d%d%d",&s1,&s2,&s3,&s4,&s5);*

*total=s1+s2+s3+s4+s5;*

*per=(float)total/500\*100;*

*if(per>=33.0)*

*{*

*printf("Candidate is pass.");*

*}*

*else*

*{*

*printf("Candidate is fail.");*

*}*

*return 0;*

*}*

***Q9. Write a program to check whether a given alphabet is in uppercase or lowercase.***

*#include <stdio.h>*

*int main()*

*{*

*char ch;*

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

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

*{*

*printf("It is uppercase.");*

*}*

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

*{*

*printf("It is lowercase.");*

*}*

*else*

*{*

*printf("It is a special character.");*

*}*

*return 0;*

*}*

***Q10. A policy agent has to inform about the amount a client will get after maturity of the scheme. If the client comes in the age group 18 to 25 then the policy period is 30 years, if the client comes in the age group 25 to 40 then the policy period is 20 years and if the client comes in the age group 40 to 55 then the policy period is 10 years. Policy is not for other age groups. Clients can invest any amount lesser than or equal to 100000 but must be greater than or equal to 10000. Rate of return is 5% using simple interest. Write a program to take age and investment amount. Print the maturity amount a client will get.***

*#include <stdio.h>*

*int main()*

*{*

*int age, invest, year,rate=5,a;*

*float maturity;*

*printf("Enter your age and investment amount(10000 to 100000)respectively.\n");*

*scanf("%d%d",&age,&invest);*

*if(age>=18 && age<=25)*

*{*

*year=30;*

*}*

*else if(age>25 && age<=40)*

*{*

*year=20;*

*}*

*else if(age>40 && age<=55)*

*{*

*year=30;*

*}*

*else*

*{*

*printf("Policy is not available.");*

*}*

*if(invest>=10000 && invest<=100000)*

*{*

*a=(float)(invest\*rate\*year)/100;*

*maturity=invest+a;*

*printf("Maturity amount=%f",maturity);*

*}*

*else*

*{*

*printf("Invest a valid amount.");*

*}*

*return 0;*

*}*