ASSIGNMENT-6

Q1.

```
#include<stdio.h>
void convertCtoF(float*celsius,float*fahrenheit)
{
*fahrenheit=(*celsius*9/5)+32;
}
int main()
{
float celsius,fahrenheit;
printf("Enter temp in celsius:");
scanf("%f",&celsius);
convertCtoF(&celsius,&fahrenheit);
printf("Temp in Fahrenheit:%2f\n",fahrenheit);
}
```

Q2.

```
#include<stdio.h>
void
calculate(float*rectperimeter,float*rectarea,float*circleperimeter,float*circlear
ea);
int main()
{
float *l,*b;
printf("Enter lengt and breath:");
scanf("%d%d",&l,&b);
float *r;
printf("Enter radius");
scanf("%f",&r);
rectperimeter(l,b);
 rectarea(l,b);
```

```
 circleperimeter(r);
 circlearea(r);
}
void rectperimeter(int l,int b)
{
 int RP;
RP=2*(l+b);
printf("perimeter of rectangle is=%d\n",RP);
}
void rectarea(int l,int b)
{
int RA;
RA=l*b;
printf("area of rectangle is=%d\n",RA);
}
void circleperimeter(float r)
{
float CP;
CP=(2*22*r)/7;
printf("perimeter of circle is=%f\n",CP);
}
void circlearea(float r)
{
float CA;
CA=(22*r*r)/7;
printf("area of circle is=%f\n",CA);
}
```

Q3.

```
void sumdigit(int*);
void reverseno(int*);
```

```
void main()
{
int num;
printf("enter number:");
scanf("%d",&num);
sumdigit(&num);
reverseno(&num);
}
void sumdigit(int* num)
{
int sum=0;
int r1,r2,q1,q2;
r1=*num%10;
q1=*num/10;
r2=q1%10;
q2=q1/10;
sum=q2+r2+r1;
printf("sum of digit is=%d\n",sum);
}
void reverseno(int* num)
{
int rev=0;
int r1,r2,q1,q2;
r1=*num%10;
q1=*num/10;
r2=q1%10;
q2=q1/10;
rev=(rev*10)+r1;
rev=(rev*10)+r2;
rev=(rev*10)+q2;
printf("reverse number is=%d\n",rev);
```

```
}
Q3.
#include<stdio.h>
int main()
{
int num;
printf("Enter number: ");
scanf("%d",&num);
checkevenodd(&num);
}
void checkevenodd(int* num)
{
if(*num%2==0)
{
printf("%d is even number.\n",*num);
 }
 else
 {
 printf("%d is odd number.\n",*num);
 }
}
Q5.
void totalsalary(float*);
void main()
{
float basic=6000;
printf("Enter basic salary: ");
scanf("%f",&basic);
totalsalary(&basic);
}
void totalsalary(float *basic)
```

```
{
float totalsalary;
float da,ta,hra;
if(*basic<=5000)
{
da=(*basic*10)/100;
ta=(*basic*20)/100;
hra=(*basic*25)/100;
}
else
{
da=(*basic*15)/100;
ta=(*basic*25)/100;
hra=(*basic*30)/100;
}
totalsalary=*basic+da+ta+hra;
printf("total salary is: %.2f\n",totalsalary);
}
```

Q6.

```
void marriage(float*,float*);
void main()
{
float* mage=34 ,*fage=18;
printf("Enter male and female age:");
scanf("%d%d",&mage,&fage);
marriage(mage,fage);
}
void marriage(float* mage,float* fage)
{
if(mage>=21&&fage>=18)
printf("eligible for marry.\n");
```

```
else
printf("not eligible for marry.\n");
}
Q7.
void discountasprice(float *oprice);
void main()
{
float oprice;
printf("enter price:");
scanf("%f", &oprice);
discountasprice(&oprice);
}
void discountasprice(float *oprice)
{
float sprice,dis;
if(oprice<100)
{
printf("there no disscount");
}
 else{

 if(oprice>=100 && oprice<=500)
{
dis=(*oprice*10)/100;
sprice=*oprice-dis;
}
else
{
if(oprice>500&&oprice<=1000)
{
dis=(*oprice*15)/100;
```

```
sprice=*oprice-dis;
}
else
{
dis=(*oprice*25)/100;
sprice=*oprice-dis;
}
}
printf("the seller price is=%f\n",sprice);
}
}
```

Q8.

```
#include <stdio.h>
void greaternointhreenos(int*, int*, int*);
int main() {
 int num1, num2, num3;
 printf("Enter three numbers: ");
 scanf("%d %d %d", &num1, &num2, &num3);
 greaternointhreenos(&num1, &num2, &num3);
 return 0;
}
void greaternointhreenos(int* num1, int* num2, int* num3) {
 if (*num1 > *num2) {
 if (*num1 > *num3) {
 printf("Number 1 (%d) is greater\n", *num1);
 } else {
 printf("Number 3 (%d) is greater\n", *num3);
 }
 } else {
 if (*num2 > *num3) {
 printf("Number 2 (%d) is greater\n", *num2);
```

```
 } else {
 printf("Number 3 (%d) is greater\n", *num3);
 }
 }
}
```

Q9.

```
#include <stdio.h>
void calculater(int*, int*, char*);
int main() {
 int num1, num2;
 char op;
 printf("Enter two numbers:");
 scanf("%d %d %c", &num1, &num2, &op);
 calculater(&num1, &num2, &op);
 return 0;
}
void calculater(int* num1, int* num2, char* op) {
 switch (*op) {
 case '+':
 printf("Addition is = %d\n", *num1 + *num2);
 break;
 case '-':
 printf("Subtraction is = %d\n", *num1 - *num2);
 break;
 case '*':
 printf("Multiplication is = %d\n", *num1 * *num2);
 break;
 case '/':
 if (*num2 != 0) {
 printf("Division is = %d\n", *num1 / *num2);
 } else {
```

```
 printf("Division by zero is not allowed.\n");
 }
 break;
 case '%':
 if (*num2 != 0) {
 printf("Modulus is = %d\n", *num1 % *num2);
 } else {
 printf("Modulus by zero is not allowed.\n");
 }
 break;
 default:
 printf("Invalid operator\n");
 }
}
```

Q10.

```
#include <stdio.h>
void basicsalevenodd(int*, float*);
int main() {
 int num;
 float basic;
 printf("Enter number: ");
 scanf("%d", &num);
 printf("Enter basic: ");
 scanf("%f", &basic);
 basicsalevenodd(&num, &basic);
 return 0;
}
void basicsalevenodd(int* num, float* basic) {
 int ch = 2;
 if (ch == 1) {
 int num_local = 543;
```

```
if (num_local % 2 == 0) {
printf("Even\n");
} else {
printf("Odd\n");
}
} else if (ch == 2) {
float totalsalary;
float da, ta, hra;
if (*basic <= 5000) {
da = (*basic * 10) / 100;
ta = (*basic * 20) / 100;
hra = (*basic * 25) / 100;
} else {
da = (*basic * 15) / 100;
ta = (*basic * 25) / 100;
hra = (*basic * 30) / 100;
}
totalsalary = *basic + da + ta + hra;
printf("Total salary is = %f\n", totalsalary);
} else if (ch == 3) {
int num_local = 765;
int sum = 0, rev = 0;
int r1, r2, q1, q2;
r1 = num_local % 10;
q1 = num_local / 10;
r2 = q1 % 10;
q2 = q1 / 10;
sum = q2 + r2 + r1;
printf("Sum of digits is = %d\n", sum);
} else {
printf("Invalid choice\n");
```

```
 }
}
```

Q11.

```
#include <stdio.h>
void disasperprice(float*, char*);
int main() {
 float pprice;
 char user;
 printf("Enter price: ");
 scanf("%f", &pprice);
 fflush(stdin);
 printf("Enter user type: ");
 scanf(" %c", &user);
 disasperprice(&pprice, &user);
 return 0;
}
void disasperprice(float* pprice, char* user) {
 float dis, sprice;
 if (*user == 's') {
 if (*pprice > 500) {
 dis = (*pprice * 20) / 100;
 } else {
 dis = (*pprice * 10) / 100;
 }
 sprice = *pprice - dis;
 printf("Seller price = %f\n", sprice);
 } else {
 if (*pprice > 600) {
 dis = (*pprice * 15) / 100;
 sprice = *pprice - dis;
 printf("Buyer price = %f\n", sprice);
```

```
 } else {
 printf("No discount\n");
 }
 }
}
```

Q12.

```
#include <stdio.h>
void nosbet1to10(int*);
int main() {
 int num;
 printf("Enter a number: ");
 scanf("%d", &num);
 nosbet1to10(&num);
 return 0;
}
void nosbet1to10(int* num) {
 printf("Numbers between 1 to 10:\n");
 while (*num <= 10) {
 printf("%d\n", *num);
 (*num)++;
 }
}
```

Q13.

```
#include <stdio.h>
void tableofno(int*);
int main() {
 int num;
 printf("Enter number: ");
 scanf("%d", &num);
 printf("Table of %d:\n", num);
 tableofno(&num);
```

```
 return 0;
}
void tableofno(int* num) {
 int i = 1;
 while (i <= 10) {
 printf("%d\n", (*num) * i);
 i++;
 }
}
```

Q14.

```
#include <stdio.h>
void sumbetrange(int*, int*);
int main() {
 int sno, lno;
 printf("Enter start number: ");
 scanf("%d", &sno);
 printf("Enter last number: ");
 scanf("%d", &lno);
 sumbetrange(&sno, &lno);
 return 0;
}
void sumbetrange(int* sno, int* lno) {
 int sum = 0;
 while (*sno <= *lno) {
 sum += *sno;
 (*sno)++;
 }
 printf("The sum of numbers in the given range: %d\n", sum);
}
```

Q15.

```
#include <stdio.h>
void primechekar(int*);
int main() {
 int num;
 printf("Enter number: ");
 scanf("%d", &num);
 primechekar(&num);
 return 0;
}
void primechekar(int* num) {
 int i = 1, count = 0;
 while (i <= *num) {
 if (*num % i == 0) {
 count++;
 }
 i++;
 }
 if (count == 2) {
 printf("Number is prime\n");
 } else {
 printf("Number is not prime\n");
 }
}
```

Q16.

```
#include <stdio.h>
void amstrongchekar(int*);
int main()
{
 int num;
 printf("Enter number: ");
 scanf("%d", &num);
```

```
 amstrongchekar(&num);
 return 0;
}
void amstrongchekar(int* numPtr)
{
 int rem, sum = 0;
 int num = *numPtr;
 int org = num;

 while (num > 0)
 {
 rem = num % 10;
 sum = sum + (rem * rem * rem);
 num = num / 10;
 }

 if (sum == org)
 printf("Number is Armstrong\n");
 else
 printf("Number is not Armstrong\n");
}
```

Q17.

```
#include <stdio.h>
void perfectchecker(int*);
int main()
{
 int num;
 printf("Enter number: ");
 scanf("%d", &num);
 perfectchecker(&num);
```

```
 return 0;
}
void perfectchecker(int* numPtr)
{
 int num = *numPtr;
 int sum = 0;
 int i = 1;

 while (i < num)
 {
 if (num % i == 0)
 {
 sum = sum + i;
 }
 i++;
 }

 if (sum == num)
 printf("Number is perfect\n");
 else
 printf("Number is not perfect\n");
}
```

Q18.

```
#include <stdio.h>
void countfactorial(int, int*, int*);
int main()
{
 int num;
 int i = 1;
 int fact = 1;
 printf("Enter number: ");
```

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

 countfactorial(num, &i, &fact);

 return 0;
}
void countfactorial(int num, int* iPtr, int* factPtr)
{
 int i = *iPtr;
 int fact = *factPtr;

 while (i <= num)
 {
 fact = fact * i;
 i++;
 }

 *factPtr = fact;

 printf("Factorial of number: %d\n", fact);
}
```

19.

```
#include <stdio.h>
void strongchekar(int*);
int main()
{
 int num;
 printf("Enter number: ");
 scanf("%d", &num);
 strongchekar(&num);
 return 0;
```

```
}
void strongchekar(int* numPtr)
{
 int num = *numPtr;
 int rem, sum = 0;
 int org = num;

 while (num > 0)
 {
 rem = num % 10;
 num = num / 10;
 int fact = 1;
 int i = 1;
 while (i <= rem)
 {
 fact = fact * i;
 i++;
 }
 sum = sum + fact;
 }

 printf("Sum = %d\n", sum);

 if (sum == org)
 printf("Number is strong\n");
 else
 printf("Number is not strong\n");
}
```

Q20.

```
#include <stdio.h>
void palindrome(int*);
```

```
int main()
{
 int num;
 printf("Enter number: ");
 scanf("%d", &num);
 palindrome(&num);
 return 0;
}
void palindrome(int* numPtr)
{
 int num = *numPtr;
 int rem, rev = 0;
 int org = num;

 while (num > 0)
 {
 rem = num % 10;
 rev = (rev * 10) + rem;
 num = num / 10;
 }

 if (rev == org)
 printf("Number is palindrome\n");
 else
 printf("Number is not palindrome\n");
}
```

Q21.

```
#include <stdio.h>
void firstlastdsum(int*);
int main()
{
```

```
 int num;
 printf("Enter number: ");
 scanf("%d", &num);

 firstlastdsum(&num);
 return 0;
}
void firstlastdsum(int* numPtr)
{
 int num = *numPtr;
 int rem, fd, sum = 0;
 int ld = num % 10;

 while (num > 0)
 {
 rem = num % 10;
 num = num / 10;
 }

 fd = rem;
 sum = fd + ld;

 printf("Sum of first and last digit number is: %d\n", sum);
}
```

Q22.

```
#include <stdio.h>
void rangeamstrong(int*, int*);
int main()
{
 int fn = 1, ln;
 printf("Enter last number: ");
```

```
 scanf("%d", &ln);

 rangeamstrong(&fn, &ln);
 return 0;
}
void rangeamstrong(int* fnPtr, int* lnPtr)
{
 int rem, sum, org;
 int fn = *fnPtr;
 int ln = *lnPtr;

 printf("All Armstrong numbers between %d and %d:\n", fn, ln);

 for (; fn <= ln; fn++)
 {
 org = fn;
 sum = 0;
 int num = fn;

 while (num > 0)
 {
 rem = num % 10;
 sum = sum + (rem * rem * rem);
 num = num / 10;
 }

 if (sum == org)
 printf("%d\n", org);
 }
}
```

Q23.

```
#include <stdio.h>
void rangeprime(int*, int*);
int main()
{
 int fn = 1, ln;
 printf("Enter last number: ");
 scanf("%d", &ln);

 rangeprime(&fn, &ln);
 return 0;
}
void rangeprime(int* fnPtr, int* lnPtr)
{
 int i, count;
 int fn = *fnPtr;
 int ln = *lnPtr;

 printf("All prime numbers between %d and %d:\n", fn, ln);

 for (; fn <= ln; fn++)
 {
 count = 0;
 for (i = 1; i <= fn; i++)
 {
 if (fn % i == 0)
 {
 count++;
 }
 }
 if (count == 2)
```

```
 printf("%d\n", fn);
 }
}
```

Q24.

```
#include <stdio.h>
void rangeperfect(int*, int*);
int main()
{
 int fn = 1, ln;
 printf("Enter the last number: ");
 scanf("%d", &ln);

 rangeperfect(&fn, &ln);
 return 0;
}
void rangeperfect(int* fnPtr, int* lnPtr)
{
 int i, sum;
 int fn = *fnPtr;
 int ln = *lnPtr;

 printf("All perfect numbers between %d and %d:\n", fn, ln);

 for (; fn <= ln; fn++)
 {
 sum = 0;
 for (i = 1; i < fn; i++)
 {
 if (fn % i == 0)
 {
 sum = sum + i;
```

```
 }
 }
 if (sum == fn)
 {
 printf("%d\n", fn);
 }
 }
}
```

Q25.

```
#include <stdio.h>
void rangestrong(int*, int*);
int main()
{
 int fn = 1, ln;
 printf("Enter the last number: ");
 scanf("%d", &ln);

 rangestrong(&fn, &ln);
 return 0;
}
void rangestrong(int* fnPtr, int* lnPtr)
{
 int rem, sum;
 int fn = *fnPtr;
 int ln = *lnPtr;

 printf("All strong numbers between 1 and %d:\n", ln);

 for (; fn <= ln; fn++)
 {
 int org = fn;
```

```
sum = 0;
int num = fn;

while (num > 0)
{
rem = num % 10;
num = num / 10;

int fact = 1;
for (int i = 1; i <= rem; i++)
{
fact = fact * i;
}

sum = sum + fact;
}

if (sum == org)
{
printf("%d\n", org);
}
}
}
```

Q26.

```
#include <stdio.h>
void fibonacciseries(int*);
int main()
{
 int num;
 printf("Enter number: ");
 scanf("%d", &num);
```

```
 fibonacciseries(&num);
 return 0;
}
void fibonacciseries(int* numPtr)
{
 int num = *numPtr;
 int sum = 0, prev1 = 0, prev2 = 1, i = 3;

 printf("Fibonacci series:\n");
 printf("%d\n%d", prev1, prev2);

 while (i <= num)
 {
 sum = prev1 + prev2;
 prev1 = prev2;
 prev2 = sum;
 printf("\n%d", sum);
 i++;
 }
}
```
