

**For 100% Result Oriented IGNOU Coaching
and Project Training
Call CPD: 011-65164822, 08860352748**

MCS-011

Assignment

Ques 1 :- Write a C program to find out perfect numbers from 1 and 50.

```
Ans :- #include<stdio.h>
#include<conio.h>
void main()
{
void perfect();
clrscr();
perfect();
getch();
}
void perfect()
{
int n,i,s,lim;
lim=1;
while(lim<=50)
{
i=1;s=0;
while(i<lim)
{
if(lim%i==0)
{
s=s+i;
}
}
i++;
}
if(s==lim)
printf("perfect no =%d\n",lim);
```

For 100% Result Oriented IGNOU Coaching and Project Training

Call CPD: 011-65164822, 08860352748

```
lim++;  
}  
  
}
```

Ques2 :- Write an algorithm, draw a corresponding flowchart and write an

interactive program to convert a binary number to its octal equivalent.

Ans :- c program to convert binary to octal

```
#include<stdio.h>  
int main(){  
  
    long int binaryNumber,octalNumber=0,j=1,remainder;  
  
    printf("Enter any number any binary number:  
"); scanf("%ld",&binaryNumber);  
  
    while(binaryNumber!=0){  
        remainder=binaryNumber%10;  
        octalNumber=octalNumber+remainder*j;  
        j=j*2;  
        binaryNumber=binaryNumber/10;  
    }  
  
    printf("Equivalent octal value: %lo",octalNumber);  
  
    return 0;  
}
```

Ques3 :- Write the function *strreplace(s, chr, repl_chr)* which will replace each occurrences of character *chr* with the character *repl_chr* in the string *s*. The function returns the number of replacements. Place the source code of this function in a file named *strreplace.c*

Ans :- char *replace_str(const char *str, const char *old, const char *new)

```
{
```

For 100% Result Oriented IGNOU Coaching and Project Training

Call CPD: 011-65164822, 08860352748

```
char *ret, *r;
const char *p, *q;
size_t oldlen = strlen(old);
size_t count, retlen, newlen = strlen(new);

if (oldlen != newlen) {
    for (count = 0, p = str; (q = strstr(p, old)) != NULL; p = q +
        oldlen) count++;
    /* this is undefined if p - str > PTRDIFF_MAX */

    retlen = p - str + strlen(p) + count * (newlen -
        oldlen); } else
    retlen = strlen(str);

if ((ret = malloc(retlen + 1)) ==
    NULL) return NULL;

for (r = ret, p = str; (q = strstr(p, old)) != NULL; p = q + oldlen) {
    /* this is undefined if q - p > PTRDIFF_MAX */
    ptrdiff_t l = q - p;
    memcpy(r, p,
        l); r += l;
    memcpy(r, new,
        newlen); r += newlen;
}
strcpy(r, p);

return ret;
}
```

Ques4 :- Write an interactive C program to check whether the given string is a palindrome or not, *using pointers*.

```
Ans :- #include<stdio.h>
#include<conio.h>
int main()
{
```

For 100% Result Oriented IGNOU Coaching and Project Training

Call CPD: 011-65164822, 08860352748

```
char str[30];
char *p,*t;

printf("Enter any string : ");
gets(str);

for(p=str ; *p!=NULL ;
p++); for(t=str, p-- ; p>=t; )
{

if(*p==*t)
{
    p--;
    t++;
}
else
    break;
}
if(t>p)
    printf("\nString is
palindrome"); else
    printf("\nString is Not
palindrome"); getch();
return 0;
}
```

Ques5 :- Write an interactive program called "WEIGHT CONVERTER" that accepts the weight in milligrams / decigrams / centigrams / kilograms / ounces / pounds / tons and displays its equivalent in grams.

Ans :- #include <stdio.h>

```
void print_converted(int pounds)
```

For 100% Result Oriented IGNOU Coaching and Project Training

Call CPD: 011-65164822, 08860352748

```
/* Convert U.S. Weight to Imperial and
International Units. Print the results */

{ int stones = pounds / 14; int
    uklbs = pounds % 14;

    float kilos_per_pound = 0.45359;

    float kilos = pounds * kilos_per_pound;

    printf(" %3d    %2d %2d    %6.2f",
           pounds, stones, uklbs, kilos);
}

main(int argc,char *argv[])
{ int pounds;

    if(argc != 2)

    { printf("Usage: convert weight_in_pounds");
        exit(1);
    }
}
```

For 100% Result Oriented IGNOU Coaching and Project Training

Call CPD: 011-65164822, 08860352748

```
sscanf(argv[1], "%d", &pounds); /* Convert String to int */
```

```
printf(" US lbs  UK st. lbs  INT Kg");
```

```
print_converted(pounds);
```

```
}
```

Ques6 :- Write an interactive program to generate pay slips for the staff of size 12 employees (2 members are clerks, one computer operator, 6 salesmen, 3 helpers) , working in a small chemist retail shop.

Assumptions can be made wherever necessary. The payslip should display the employee no., employee name, no. of days worked during the month, date of generation of the payslip, month for which the salary is being paid, all the details of the payment, deductions, gross-pay and net-pay.

Ans :- #include<stdio.h>

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

```
Struct date
```

```
{
```

```
Int dt;
```

```
Int month;
```

```
Int year;
```

```
};
```

For 100% Result Oriented IGNOU Coaching and Project Training

Call CPD: 011-65164822, 08860352748

```
Struct employee
```

```
{
```

```
Int empno;
```

```
Char empname[20];
```

```
Int no_days;
```

```
Struct date d;
```

```
Float basic;
```

```
Float hra;
```

```
Float da;
```

```
Int incentive;
```

```
};
```

```
Void main()
```

```
{
```

```
Struct employee e[12];
```

```
Int i;
```

```
Float net_sal;
```

```
Clrscr();
```

```
Printf("Enter the details of employee %d",i+1);
```

For 100% Result Oriented IGNOU Coaching and Project Training

Call CPD: 011-65164822, 08860352748

```
For(i=0;i<=11;i++)
{
    Printf("Enter employee no.");
    Scanf("%d",&e[i].empno);
    Printf("Enter employee name");
    Scanf("%s",e[i].empname);
    Printf("Enter no. of days worked");
    Scanf("%d",&e[i].no_days);
    Printf("Enter the date of paying salary");
    Scanf("%d %d %d",&e[i].d.dt,&e[i].d.month,&e[i].d.year);
    Printf("Enter the basic salary");

    Scanf("%f",&e[i].basic);
    Printf("Enter hra");
    Scanf("%f",&e[i].hra);
    printf("Enter the da");
    scanf"%f",&e[i].da);
    printf("Enter the incentive")
    scanf("%d",&e[i].incentive);
}
```


For 100% Result Oriented IGNOU Coaching and Project Training

Call CPD: 011-65164822, 08860352748

```
Printf("\n\n PAYMENT SLIP ");
For(i=0;i<=11;i++)
{
printf("\n PAYMENT SLIP FOR EMPLOYEE
%D",l+1); printf("\nEmployee No. :
%d",e[i].empno); printf("\nEmployee Name :
%s",e[i].empname); printf("\n No of days worked :
%d",e[i].no_days); printf("\nBasic Salary :
%f",e[i].basic); printf("\nHRA : %f",e[i].hra);
printf("\nDA : %f",e[i].da);
printf("\nIncentive : %d",e[i].incentive);
net_sal=e[i].basic-e[i].hra-e[i].da+e[i].incentive;
printf("\nNet Salary : %f",net_sal);

printf("\nDate : %d %d %d ",e[i].d.dt,e[i].d.month,e[i].d.year);

}
getch();
}
```