Course Code: BIT 115 **Course Name: C Programming**

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COLLEGE OF MANAGEMENT & INFORMATION TECHNOLOGY

BACHELOR IN INFORMATION TECHNOLOGY

ASSIGNMENT

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1. Write a program in C to print all the prime numbers between 1 and 100.

Solution:

```
#include <stdio.h>
int main ()
{
int i, Number, count;
printf(" Prime Number from 1 to 100 are: \n");
for(Number = 1; Number <= 100; Number++)
{      count
= 0;
for (i = 2; i <= Number/2; i++)
{
if(Number%i == 0)
{
count++;
break;
}
}
if(count == 0 && Number != 1 )
{
printf(" %d ", Number);
}
}
return 0;
}
```

Output: Prime Number from 1 to 100 are: 2 3 5 7 11 13 17 19 23

29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97

2. Write a program in C to generate following pattern: 1 23 456 78910

Solution:

```
#include<stdio.h>
int main()
{
int rows, i, j, number= 1;
printf("Enter number of rows: ");
scanf("%d", &rows);
for (i=1; i<=rows; i++)
{
for (j=1; j<=i; ++j)
{
printf("%d ", number);
++number;
}
printf("\n");
}
return 0;
}
```

3. Write a menu driven program using switch case to calculate

a. Area of circle
b. Area of sphere

Solution:

```
#include
<stdio.h>
void main ()
{ int choice,r; float area;
printf("Input 1 for area of circle\n");
```

```
printf("Input 2 for area of sphere\n");
printf("Input your choice : ");
scanf("%d",&choice);
    switch(choice)

    {
case 1:

                printf("Input radius of the circle : ");
scanf("%d",&r);                 area=3.14*r*r;
break;          case 2:

       printf("Input radius of the sphere : ");
scanf("%d",&r);          area=4*3.14*r*r;

       break;

 }

 printf("The area is : %f\n",area);

 }
```

4. Some text file is given; create another text file replacing the following words

   "Ram" to "Hari", "Sita" to "Gita", and "Govinda" to "Shiva". Define a

   structure Employee having data members name, address and salary. Take data for n employee in an array dynamically and find the average salary.

```
Solution: #include<stdio.h>  #include<conio.h>

void main()

 {

 FILE *fp,*fpp;   char
c[10];
fp=fopen("cat.txt","r");
if(fp==NULL)

  {

 printf("The file named cat.txt cannot be opened");
exit(1);
```

```
 }

fpp=fopen("dog.txt","w");

 if(fpp==NULL)

 {

printf("File with the name dog.txt cannot be created");
exit(1);

 }

while(fscanf(fp,"%s",c)!=EOF)

{

 if(strcmp(c,"Ram")==0)
fprintf(fpp,"Hari",c);  else
if(strcmp(c,"Sita")==0)
fprintf(fpp,"Gita",c);  else
if(strcmp(c,"Govinda")==0)

 fprintf(fpp,"Shiva",c);
else fprintf(fpp,"%s",c);

 }

 printf("completed!");  fclose(fp);

 fclose(fpp);

 }
```

- Solution:

```
#include<stdio.h>

#define  n  5    int

main()

{
```

```
struct employee
{
char name[30];
char address[30];
float salary;  }s[n];

int i;
float  avgsalary,sum=0;   //Loop  to
read    data    for    n    employee
for(i=0;i<n;i++)
{
printf("\nEnter details of employee %d\n",i+1);
printf("Enter name:");
fgets(s[i].name,30,stdin);  printf("Enter
salary:");  scanf("%f",&s[i].salary);
fflush(stdin);  printf("Enter address:");
fgets(s[i].address,30,stdin);

}
//Loop to find the sum of salary of all employees  for(i=0;i<n;i++)
{
sum=sum+s[i].salary;
}
avgsalary=sum/n;
printf("Average salary of employee:%f",avgsalary);
return 0;
}
```