**C**

**PROGRAMING**

**PREPARED FOR KTU CS STUDENTS FIRST YEARS**

**PREFACE**

THIS IS A SET OF PROGRAMS IN C ORDERED ACCORDING TO KTU SYLLABUS FOR CS 100: COMPUTER PROGRAMING. THERE ARE MODULE WISE PROGRAMS GIVEN IN CATOGERISING WITH EACH SECTION.WE HAVE PROVIDED THE OUTPUT OF EACH QUESTION BELOW IN ORDER TO UNDERSTAND THE CLARITY OF PROGRAM.THESE PROGRAMS ARE COMPILED USING GCC COMPLIER. AT THIS MOMENT, I WOULD LIKE TO MENTION GRATITUDE TOWARDS **PROF.ROY JOHN** (HEAD OF HIGHER SECONDARY CS DEPT THRISSUR), **PROF. LIVYA GEORGE & PROF AMURTHA BENNY** (SAHRDAYA COLLLEGE OF ENGINEERING & TECHNOLOGY) BEING A GUIDED SUPPORT FOR PREPARATION THESE SET OF PROGRAMS THIS BOOK CONTAINS 150 PROGRAMS, WHICH FACILATES THE BEGINNERS TO TRACE THE C PROGRAMING LANGUAGE.

**THRISSUR DON C JOHN**

**APRIL 2017**

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1. **PRINT STARS IN SEQUENCE 3**

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**12**

**123**

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**4321**

**321**

**21**

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**BASIC SYNTAX**

**MODULE 1**

1. **BASIC SECTIONS**
2. **HELLO WORLD**

#include<stdio.h>

int main()

{

printf("HELLO WORLD");

}

**OUTUT**

HELLO WORLD

1. **FIND SUM OF 2 NUMBERS**

#include<stdio.h>

int main()

{

int a,b;

printf("ENTER TWO NUMBERS FOR SUM \n");

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

printf("THE SUM IS %d + %d = %d",a,b,a+b);

}

**OUTPUT**

ENTER TWO NUMBERS FOR SUM

5

6

THE SUM IS 5 + 6 = 11

1. **AREA & PERIMETER OF CIRCLE**

#include<stdio.h>

int main()

{

int r;

float pi=3.14;

printf("ENTER THE RADIUS OF CIRCLE : ");

scanf("%d",&r);

printf("THE AREA OF CIRCLE : %f \n",pi\*r\*r);

printf("THE PERIMETER OF CIRCLE : %f",2\*r\*pi);

}

**OUTPUT**

ENTER THE RADIUS OF CIRCLE : 5

THE AREA OF CIRCLE : 78.500003

THE PERIMETER OF CIRCLE : 31.400001

1. **AREA & PERIMETER OF RECTANGLE**

#include<stdio.h>

int main()

{

int l,b;

printf("ENTER THE LENGTH & BREADTH OF RECTANGLE \n");

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

printf("THE AREA OF RECTANGLE : %d \n",l\*b);

printf("THE PERIMETER OF RECTANGLE : %d",2\*(l+b));

}

**OUTPUT**

ENTER THE LENGTH & BREADTH OF RECTANGLE

5

3

THE AREA OF RECTANGLE : 15

THE PERIMETER OF RECTANGLE : 16

1. **CONVERT TEMPERATURE DEGREE TO FAHRENHEIT**

#include<stdio.h>

int main()

{

float celsius, fahrenheit;

printf("Enter temp in Celsius : ");

scanf("%f", &celsius);

fahrenheit = (1.8 \* celsius) + 32;

printf("\nTemperature in Fahrenheit : %f ", fahrenheit);

return (0);

}

**OUTPUT**

Enter temp in Celsius : 100

Temperature in Fahrenheit : 212.000000

1. **SWAPING TWO NUMBERS**

#include<stdio.h>

int main()

{

int a, b, temp;

printf("Enter two numbers \n");

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

printf("First Number: %d\nSecond Number: %d\n",a,b);

temp = a;

a = b;

b = temp;

printf("After Swap\n");

printf("First Number: %d\nSecond Number: %d\n",a,b);

return (0);

}

**OUTPUT**

Enter two numbers

2

23

First Number: 2

Second Number: 23

After Swap

First Number: 23

Second Number: 2

1. **FIND SIMPLE INTEREST**

#include<stdio.h>

int main()

{

int p,r,n;

printf("ENTER PRINCIPLE AMOUNT,NO OF YEAR,INTEREST RATE\n");

scanf("%d%d%d",&p,&n,&r);

printf("THE INTEREST FOR %d YEAR FOR %d IS %d",n,p,(p\*n\*r)/100);

}

**OUTPUT**

ENTER PRINCIPLE AMOUNT,NO OF YEAR,INTEREST RATE

10000

3

9

THE INTEREST FOR 3 YEAR FOR 10000 IS 2700

1. **CALCULATE THE SUM OF 5 SUBJECT AND FIND ITS PERCENTAGE**

#include<stdio.h>

int main()

{

int s1, s2, s3, s4, s5, sum, total = 500;

float per;

printf("\nEnter marks of 5 subjects : ");

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

sum = s1 + s2 + s3 + s4 + s5;

printf("Sum : %d", sum);

per = (sum \* 100) / total;

printf("\nPercentage : %f", per);

return (0);

}

**OUTPUT**

Enter marks of 5 subjects : 30

40

50

60

70

Sum : 250

Percentage : 50.000000

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2. **USING CONDITIONAL OPERATOR FIND LARGEST OF TWO NUMBERS**
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