**ODD 2020**

**Tutorial Sheet - 4**

**Software Development Fundamentals – I (15B11CI111)**

| **Course Outcomes (CO)** | |
| --- | --- |
| **CO1** | Explain various phases of software development life cycle |
| **CO2** | Explain various data types, memory allocation schemes, precedence of arithmetical and logical operations, and need of array, and structures |
| **CO3** | Draw the flow chart and write the high level code for different problems |
| **CO4** | Apply and implement functions with or without pointers for different problems |
| **CO5** | Demonstrate and implement various operations like traverse, insertion, deletion, *etc.* on files |

**Note:** Students are advised to submit their solutions to their respective tutorial faculties

**Q1. [CO2]** Write a C program which reads the values of four variables say- w, x, y and z from the user and evaluates the ratio of (w+y) to (x-z) and prints the result, if (x-z) is not equal to zero.

**Q2. [CO2]** Write a C program that will read the value of x and evaluate the following function

y= {1 for x>0 ; 0 for x =0; -1 for x <0 }

using

(a) nested if statements.

(b) else if statements

**Q3. [CO2]** The output of the following segment when executed is:

*#include <stdio.h>*

*void main(){*

*int a=10, b=5;*

*if(a>b){*

*if(b>5)*

*printf("%d",b);*

*}*

*else*

*printf("%d",a);*

*}*

A. 5

B. 10

C. 510

D. None

**Q4. [CO2]** The output of the following segment when executed is:

#include <stdio.h>

int main()

{

    int i = 0;

    switch (i)

    {

        case '0': printf("Indian");

                break;

        case '1': printf("Foods");

                break;

        default: printf("IndianFoods");

    }

    return 0;

}

A. Indian

B. Foods

C. IndianFoods

D. None

**Q5. [CO2]** A person going on a trip has taken a car on rent from a car rental shop. An initial rent is fixed of 100 rupees. After that the rental bill is calculated as per the following rules:

For first 50 kms Rs. 50/km

For next 100 kms Rs. 75/km

For next 100 kms Rs. 120/km

For distance above 250 kms Rs. 150/unit

Calculate total car rental cost of the trip by a person using if else in C programming.

**Find output from Q6-10**

**Q.6** #include"stdio.h"

int main()

{

int i;

if(i=(2,1,0))

printf("World ");

else

printf("Hello ");

printf("%d\n",i);

}

**Q.7** #include <stdio.h>

int main()

{

    int a=10;

    if(a==10)

    {

        printf("Hello...");

        break;

        printf("Ok");

    }

    else

    {

        printf("Hii");

    }

    return 0;

}

1. [Hello...](about:blank)
2. [Hello...OK](about:blank)
3. [OK](about:blank)
4. [Error](about:blank)

**Q.8** #include <stdio.h>

int main()

{

    if( (-100 && 100)||(20 && -20) )

        printf("%s","Condition is true.");

    else

        printf("%s","Condition is false.");

    return 0;

}

**Q.9** int main()

{

if(-5)

{

printf("Germany\n");

}

if(5)

{

printf("Texas\n");

}

printf("ZING");

return 0;

}

**Q.10** #include<stdio.h>

#define L 10

void main()

{

auto a = 10;

switch (a, a\*2)

{

case L:

printf("ABC");

break;

case L\*2:

printf("XYZ");

break;

case L\*3:

printf("PQR");

break;

default:

printf("MNO");

case L\*4:

printf("www");

break;

}

}