JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -1 EXAMINATIONS-2022
B.Tech-I Semester (All Branches)
COURSE CODE (CREDITS): 19B11CI111 (2)   MAX. MARKS: 15
COURSE NAME: PROGRAMMING FOR PROBLEM SOLVING-II
COURSE INSTRUCTORS: Dr.{Pardeep, Ravindara,Amit,Amol,Avmi,Kushal,Vikash, Nishant}
MAX. TIME: 1 Hour

Note: *All questions are compulsory. Marks are indicated against each question in square brackets. Do not use advanced topics like loops, user defined functions, arrays etc while answering programming questions.*

Q1. Draw the block diagram of instruction execution cycle. What is the role of Program Counter (PC) and Instruction Register (IR) in a program execution?   [1+2][CO-1]

Q2. Draw the execution of a simple C program with suitable diagram. Is loader be the part of compiler? Justify your answer.   [2+1][CO-1]

Q3. Write an algorithm and make a flow chart to multiply two numbers without using * operator. Numbers should be entered by the user   [1+2][CO-2]

Q4. Write a program to swap two numbers without using third operator.   [3] [CO-2]

Q5. What would be the output of the following programs?   [6x0.5=3][CO-3]

(a)	(b)	(c)
``#include<stdio.h>
int main()
{
int c=0,d=5,e=10,a;
a=c>1 ? d>1 || e>1? 100:200:300;
printf("a=%d",a);
return 0;
}```	```#include<stdio.h>
int main()
{
int a=500,b=100,c;
if (!a>=400)
b=300;
c=200;
printf("b= %d c=%d", b,c);
return 0;
}```	```#include<stdio.h>
int main()
{
int i=3, a=4,n;
float t=4.2;
n=a*a/i + i/2*t + 2+t;
printf(" n=%d",n);
return 0;
}```
(d)	(e)	(f)
``#include<stdio.h>
int main()
{
int i=3, a=4,n;
n= i & a;
printf(" n=%d",n);
return 0;
}```	```#include<stdio.h>
int main()
{
int i=10;
printf("%d",i<<2);
return 0;
}```	```#include<stdio.h>
int main()
{
int sum;
double x = 1.2;
sum = (int)x + 1;
printf("sum = %d", sum);
return 0;
}```