THE LNM INSTITUTE OF INFORMATION TECHNOLOGY, JAIPUR
QUIZ II Solution
Computer Programming

Time: 45 Minutes **Full Marks: 20(2*10)**

Name.....Roll No: .....

Important Points
1. Write explanation for each answer else no marks will be awarded
2. See the below if error mention it, else write output for same

1. 1. *#define int char* *main()* *{* *int i=65;* *printf("sizeof(i)=%d",sizeof(i));* *}* ****** *sizeof function return space for variable. Assume int = 2 byte, float = 4 byte, char = 1 byte* **********	***Answer:*** sizeof(i)=1 ***Explanation:*** Since the #define replaces the string **int** by the macro **char**
2. main() { int i=0; for(;i++;printf("%d",i)) ; printf("%d",i); }	***Answer:*** 1 ***Explanation:*** before entering into the for loop the checking condition is "evaluated". Here it evaluates to 0 (false) and comes out of the loop, and i is incremented (note the semicolon after the for loop).
3. main() { int i; printf("%d",scanf("%d",&i)); // value 10 is given as input here }	***Answer:*** 1 ***Explanation:*** Scanf returns number of items successfully read and not 1/0. Here 10 is given as input which should have been scanned successfully. So number of items read is 1.
4. void show() { printf("I'm the greatest"); } main() { show(); }	***Answer:*** I'm the greatest ***Explanation:*** *Main() call show() and execute printf() function.*
5. void main() { char a[]="12345\0";	***Answer:*** here in 3 6 ***Explanation:***

int i=strlen(a); printf("here in 3 %d\n",++i); }	The char array 'a' will hold the initialized string, whose length will be counted from 0 till the null character. Hence the 'I' will hold the value equal to 5, after the pre-increment in the printf statement, the 6 will be printed.
6. void main() { int i; char a[]="\0"; if(printf("%s\n",a)) printf("Ok here \n"); else printf("Forget it\n"); }	***Answer:*** Ok here ***Explanation:*** Printf will return how many characters does it print. Hence printing a null character returns 1 which makes the if statement true, thus "Ok here" is printed.
7. void main() { static int i=i++, j=j++, k=k++; printf("i = %d j = %d k = %d", i, j, k); }	***Answer:*** i = 1 j = 1 k = 1 ***Explanation:*** Since static variables are initialized to zero by default.
8. void main() { while(1){ if(printf("%d",printf("%d"))) break; else continue; } }	***Answer:*** Garbage value, 1 ***Explanation:*** The inner printf executes first to print some garbage value. The printf returns no of characters printed and this is 1. The outer printf prints something and so returns a non-zero value. So it encounters the break statement and comes out of the while statement.
9. void main() { int i=10; void f(int,int,int); f(i++,i++,i++); printf(" %d",i); } void f(integer i,integer j,integer k) { printf(" In function %d, %d, %d, i,j,k); }	***Answer:*** Compiler error: unknown type integer
10. #include<stdio.h> void main() { int arr[10] = {1,2,3,4,5}; printf("%d", arr[5]); }	Answer : 0 Explanation : remaining array index element are initialized by zero.