THE LNM INSTITUTE OF INFORMATION TECHNOLOGY, JAIPUR
QUIZ III
Computer Programming

Time: 55 Minutes **Maximum Marks: 25**

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
3. maximum marks : 2 marks from question 1 - 11 and question 12 has 3 marks

1.
```
#include<stdio.h>
main()
  {
    register i=5;
    char j[]= "hello";
     printf("%s  %d",j,i);
}
```

Answer:
hello 5
Explanation:
if you declare i as register compiler will treat it as ordinary integer and it will take integer value. i value may be stored either in register or in memory.

2.
```
void main()
  {
 char s[ ]="man";
 int i;
 for(i=0;s[ i ];i++)
 printf("\n%c%c%c%c", s[i], *(s+i), *(i+s), i[s] );
}
```

Answer:
mmmm
aaaa
nnnn
Explanation:
s[i], *(i+s), *(s+i), i[s] are all different ways of expressing the same idea. Generally array name is the base address for that array. Here **s** is the base address. **i** is the index number/displacement from the base address. So, indirecting it with * is same as s[i]. i[s] may be surprising. But in the case of C it is same as s[i].

3.
```
main()
{
 char a[100];
 a[0]='a';a[1]]='b';a[2]='c';a[4]='d';
 abc(a);
}
abc(char a[]){
 a++;
 printf("%c",*a);
 a++;
 printf("%c",*a);
}
```

Error: *Function not declared*
If declared then
Answer: bc
Explanation:
The base address is modified only in function and as a result a points to 'b' then after incrementing to 'c' so bc will be printed.

4. *#include<stdio.h>* *main()* *{* *struct xx* *{* *int x=3;* *char name[]="hello";* *};* *struct xx *s;* *printf("%d",s->x);* *printf("%s",s->name);* *}*	***Answer:*** Compiler Error ***Explanation:*** You should not initialize variables in declaration

5. void main()
{
int i;
for(i=1;i<4,i++)
switch(i)
case 1: printf("%d",i);break;
{
case 2:printf("%d",i);break;
case 3:printf("%d",i);break;
}
switch(i) case 4:printf("%d",i);
}
	Ans: 1,2,3,4

6.
void main()
{
int i;
char a[]="Hello\0";
if(!printf("%s\n",a))
printf("Ok here \n");
else
printf("Forget it\n");
}
	Answer: Forget it
	Explanation: printf will return 5 not of same will make it false so else part is executed.

7. A structure pointer is defined of the type time. With 3 fields min, sec hours having pointers to integers. Write the way to initialize the 2nd element to 10.	Struct time
	{
	int *min;
	int *sec;
	int * hour
	}*p;
	
	p = (struct time)malloc(sizeof(struct time));
	p->sec = (int*)malloc(sizeof(int));
	p->sec = 10;

8. char *foo()
{
char result[100]);
strcpy(result,"anything is good");
return(result);
}
void main()
{
char *j;
j=foo()
printf("%s",j);
}
	Ans: anything is good.

9.
typedef int integer
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);
}
	Error: *Function not declared*
	If declared then
	Answer: 10 10 10 13

10. *main()* *{* *float me = 1.1;* *double you = 1.1;* *if(me==you)* *printf("I love U");* *else* *printf("I hate U");* *}*	***Answer:*** I hate U ***Explanation***: For floating point numbers **(**float, double, long double**)** the values cannot be predicted exactly. Depending on the number of bytes, the precession with of the value represented varies. Float takes 4 bytes and long double takes 10 bytes. So float stores 0.9 with less precision than long double.

11.
```
main()
{
static int var = 5;
printf("%d ",var--);
if(var)
        main();
}
```

Answer:

5 4 3 2 1

Explanation:

When *static* storage class is given, it is initialized once. The change in the value of a *static* variable is retained even between the function calls. Main is also treated like any other ordinary function, which can be called recursively

12. Write a program that read the name of file by system command. File contain set of characters terminated by '\0'. Read the characters convert them into upper case and print the data on screen.

Covered in Class