



HITBULLSEYE

LEVEL 1: LPU TECHNICAL TEST 04

Question No: 1

DIRECTIONS for the question: Mark the best option:
Point out the error in the following program.

```
#include  
int main()  
{  
    char str[] = "hitsbullseye";  
    printf("%.#s %2s", str, str);  
    return 0;  
}
```

- ☐ in Array declaration
- ☒ printf statement

- ☐ unspecified character in printf
- ☒ No error

Question No: 2

DIRECTIONS for the question: Mark the best option:

Find the output of following snippet?

```
#include  
void main()  
{  
char letter = 'Z';  
printf("%c",letter);  
}
```

- ☒ Z
- ☐ 90
- ☐ Garbage Value
- ☐ Error

Question No: 3

DIRECTIONS for the question: Mark the best option:

What will be the output of the program?

```
#include  
#define SQR(x)(x*x)  
int main()  
{  
int a, b=3;  
a = SQR(b+2);  
printf("%d\n", a);  
return 0;  
}
```

- ☐ 25
- ☒ 11
- ☐ Error
- ☐ Garbage value

Question No: 4

DIRECTIONS for the question: Mark the best option:

What will be the output of the program if value 25 given to scanf()?

```
#include  
int main()  
{  
int i;  
printf("%d\n", scanf("%d", &i));  
return 0;  
}
```

- ☒ 1
- ☐ 2
- ☐ 5
- ☐ 25

Question No: 5

DIRECTIONS for the question: Mark the best option:

What is the output of the given snippet?

```
void main()  
{  
char far *farther, *farthest;  
printf("%d,%d",sizeof(farther),sizeof(farthest));  
}
```

- ☐ 2.4
- ☐ syntax error
- ☐ compiler error
- ☒ 4.2

Question No: 6

DIRECTIONS for the question: Mark the best option:

What will be the content of 'file.c' after executing the following program?

```
#include  
int main()  
{  
FILE *fp1, *fp2;
```

```
fp1=fopen("file.c", "w");
fp2=fopen("file.c", "w");
fputc('A', fp1);
fputc('B', fp2);
fclose(fp1);
fclose(fp2);
return 0;
}
```

- ☒ B
- ☐ A B
- ☐ B B
- ☐ Error in opening file 'file1.c'

Question No: 7

DIRECTIONS for the question: Mark the best option:

What is the output of following snippet?

```
main()
{
int c[] = { 2.8,3.4,4,6.7,5};
int j,*p=c,*q=c;
for(j=0;j<5;j++)
{
printf("%d",*c);
++q;
}
for (j =0; j<5;j++)
{
printf("%d",*p);
++p;
}
}
```

- ☐ syntax error
- ☐ compiler error
- ☒ 2 2 2 2 2 3 4 6 5
- ☐ 5 6 4 5 2 2 2 2

Question No: 8

DIRECTIONS for the question: Mark the best option:

What will be the output of the program ?

```
#include
int main()
{
float arr[] = {12.4, 2.3, 4.5, 6.7};
printf("%d\n", sizeof(arr)/sizeof(arr[0]));
return 0;
}
```

- ☒ 4
- ☐ 5
- ☐ 6
- ☐ 7

Question No: 9

DIRECTIONS for the question: Mark the best option:

What is the output of above snippet?

```
main()
{
char *p;
p ="Hello";
printf ("%c\n" *&p);
}
```

- ☒ H
- ☐ syntax error
- ☐ compiler error
- ☐ E

Question No: 10

DIRECTIONS for the question: Mark the best option:

What is the output of given snippet?

```
main()
{
```

```
int i;  
printf("%d",scanf("%d",&i));  
// value 10 is given to the input here  
}
```

- ☒ 1
- ☐ compiler error
- ☐ syntax error
- ☐ 2

Question No: 11

DIRECTIONS for the question: Mark the best option:

What will be output of following c program?

```
void main()  
{  
int a,i=4;  
a=- -i+- -i+- -5;  
printf("%d %d",a,i);  
}
```

- ☒ 13 4
- ☐ . -3 2
- ☐ 7 2
- ☐ -13 4

Question No: 12

DIRECTIONS for the question: Mark the best option:

Find the output from following program?

```
#include  
int main()  
{  
int a = 10, b;  
a >= 5 ? b=100: b=200;  
printf("%d\n", b);  
return 0;  
}
```

- ☒ 100
- ☐ 200
- ☐ Error: L value required for b
- ☐ Garbage value

Question No: 13

DIRECTIONS for the question: Mark the best option:

What will be output of following c program?

```
struct myStruct
```

```
{
```

```
int a;
```

```
char b;
```

```
}
```

```
*ptr;
```

```
int main()
```

```
{
```

```
struct myStruct ms={400,'A'};
```

```
printf("%d %d",ptr->a,ptr->b);
```

```
return 0;
```

```
}
```

- ☐ 400 A
- ☐ 400 65
- ☐ 400 97
- ☒ 0 0

Question No: 14

DIRECTIONS for the question: Mark the best option:

What will be the output of the program?

```
#include
```

```
int main()
```

```
{
```

```
int i;
```

```
i = printf("How r u\n");
```

```
i = printf("%d", i);
```

```
printf("%d", i);
```

```
return 0;  
}
```

- ☐ How r u 7 2
- ☒ How r u 8 2
- ☐ How r u 1 1
- ☐ Error: cannot assign printf to variable

Question No: 15

DIRECTIONS for the question: Mark the best option:

What will be output of following c program?

```
#include  
typedef struct stu1  
{  
int roll;  
char *name;  
double marks;  
}  
STU1;  
typedef struct stu2  
{  
int roll;  
char *name;  
double marks;  
}  
STU2;  
void main()  
{  
STU1 s1={25,"Rohit",87.43},*p1;  
STU2 *p2; p1=&s1;  
memcpy(p2,p1,4);  
printf("Roll : %d\n",p2->roll);  
printf("Name : %s\n",p2->name);  
printf("Marks : %lf",p2->marks);  
}
```

- ☐ Roll : 25 Name : Rohit Marks : 87.430000
- ☐ Roll : 25 Name : Rohit Marks : 0.000000

☐ Roll : 0 Name : Rohit Marks : 87.430000

☐ Roll : 0 Name : null Marks : 0.000000

Question No: 16

DIRECTIONS for the question: Mark the best option:

Assume integer is 2 bytes wide. How many bytes will be allocated for the following code?

```
#include
#include
#define MAXROW 3
#define MAXCOL 4
int main()
{
    int (*p)[MAXCOL];
    p = (int (*) [MAXCOL])malloc(MAXROW *sizeof(*p));
    return 0;
}
```

- ☐ 56 bytes
- ☐ 128 bytes
- ☐ 24 bytes
- ☒ 12 bytes

Question No: 17

DIRECTIONS for the question: Mark the best option:

What will be output when you will execute following c code?

```
void main()
{
    volatile int a=11;
    printf("%d",a);
}
```

- ☐ Garbage
- ☐ 11
- ☐ 2
- ☒ We cannot predict

Question No: 18

DIRECTIONS for the question: Mark the best option:

Consider the following C program.

```
void f(int, short);  
void main()  
{  
  int i = 100;  
  short s = 12;  
  short *p = &s;  
  _____ ; // call to f()  
}
```

Which one of the following expressions, when placed in the blank above, will NOT result in a type checking error?

- ☐ f(s, *s)
- ☐ i = f(i,s)
- ☐ f(i,*s)
- ☒ f(i,*p)

Question No: 19

DIRECTIONS for the question: Mark the best option:

Predict the output of following program

```
#include  
int main()  
{  
  int n;  
  for (n = 9; n!=0; n--)  
    printf("n = %d", n--);  
  return 0;  
}
```

- ☐ 9 7 5 3 1
- ☐ 9 8 7 6 5 4 3 2 1
- ☒ Infinite Loop
- ☐ 9 7 5 3

Question No: 20

DIRECTIONS for the question: Mark the best option:

Predict the output of following program:

```
#include
int main()
{
    int i = 0;
    for (i=0; i<20; i++)
    {
        switch(i)
        {
            case 0:
                i += 5;
            case 1:
                i += 2;
            case 5:
                i += 5;
            default:
                i += 4;
                break;
        }
        printf("%d ", i);
    }
    return 0;
}
```

- ☐ 5 10 15 20
- ☐ 5 12 15 20
- ☒ 16 21
- ☐ Compiler Error

Question No: 21

DIRECTIONS for the question: Mark the best option:

In the context of the below program snippet, pick the best answer.

```
#include "stdio.h"
int arr[10][10][10];
int main()
{
```

```
arr[5][5][5] = 123;
return 0;
}
```

Which of the given printf statement(s) would be able to print arr[5][5][5]

- (i) printf("%d",arr[5][5][5]);
- (ii) printf("%d",*(*(*arr+5)+5)+5);
- (iii) printf("%d",(*(*arr+5)+5)[5]);
- (iv) printf("%d",*((*arr+5)[5]+5));

- ☐ only (i) would compile and print 123.
- ☐ both (i) and (ii) would compile and both would print 123.
- ☐ only (i), (ii) and (iii) would compile but only (i) and (ii) would print 123.
- ☐ only (i), (ii) and (iii) would compile and all three would print 123.
- ☒ all (i), (ii), (iii) and (iv) would compile but only (i) and (ii) would print 123.

Question No: 22

DIRECTIONS for the question: Mark the best option:

What's going to happen when we compile and run the following C program snippet?

```
#include "stdio.h"
int main()
{
int a = 10;
int b = 15;
printf("=%d",(a+1),(b=a+2));
printf(" %d=",b);
return 0;
}
```

- ☐ =11 15=
- ☒ =11 12=
- ☐ Compiler Error due to (b=a+2) in the first printf().
- ☐ No compile error but output would be =11 X= where X would depend on compiler implementation.

Question No: 23

DIRECTIONS for the question: Mark the best option:

What's going to happen when we compile and run the following C program snippet?

```
#include "stdio.h"
int main()
{
int a = 10;
printf("=%d %d=",(a+1));
return 0;
}
```

- ☐ =11 0=
- ☐ =11 X= where X would depend on Compiler implementation
- ☒ Undefined behaviour
- ☐ Compiler Error due to missing argument for second %d

Question No: 24

DIRECTIONS for the question: Mark the best option:

What is the output of the following code?

```
class change:
def __init__(self, x, y, z):
self.a= x + y + z
```

```
x =change(1,2,3)
y =getattr(x,'a')
setattr(x,'a', y+1)
print(x.a)
```

- ☐ 6
- ☒ 7
- ☐ Error
- ☐ 0

Question No: 25

DIRECTIONS for the question: Mark the best option:

What would be the output of following Python code?

```
name1="Roger"  
name2="Robert"
```

```
defswap_names(name1,name2):  
temp=name1
```

```
name1=name2  
name2=temp
```

```
print("Before swapping: name1="+name1+" name2="+name2)  
swap_names(name1, name2)  
print("After swapping: name1="+name1+" name2="+name2)
```

- A) Before swapping: name1=Roger name2=Robert
After swapping: name1=None name2=None
- B) Before swapping: name1=Roger name2=Robert
After swapping: name1=Robert name2=Robert
- C) Before swapping: name1=Roger name2=Robert
After swapping: name1=Roger name2=Robert
- D) Before swapping: name1=Roger name2=Robert

After swapping: name1=Robert name2=Roger

- ☐ A
- ☒ B
- ☐ C
- ☐ D

Question No: 26

DIRECTIONS for the question: Mark the best option:

What is the output of the below Python code?

Note: Assume that necessary imports have been done

```
temp=['Mysore', 'Bangalore', 'Pune', 'Chennai']
temp.sort()
count1=len(temp[0])
count2=len(temp[-1])
final_val=math.ceil(count1/count2)
print(final_val)
```

- ☒ 3
- ☐ 2
- ☐ 1
- ☐ 4

Question No: 27

DIRECTIONS for the question: Mark the best option:

Let A be a square matrix of size $n \times n$. Consider the following program.
What is the expected output?

```
C = 100
for i = 1 to n do
  for j = 1 to n do
    {
      Temp = A[i][j] + C
      A[i][j] = A[j][i]
      A[j][i] = Temp - C
    }
  for i = 1 to n do
    for j = 1 to n do
      Output(A[i][j]);
```

- ☐ Adding 100 to the upper diagonal elements and subtracting 100 from diagonal elements of A
- ☒ The matrix A itself

- ☐ Transpose of matrix A
- ☐ None of the above

Question No: 28

DIRECTIONS for the question: Mark the best option:

- ☒ 0
- ☐ 1
- ☐ Undefined behaviour
- ☐ Compile time error
- ☐ None of the above

Question No: 29

DIRECTIONS for the question: Mark the best option:

Observe following program:

```
class Example
{ public: int a,b,c;
Example(){a=b=c=1;} //Constructor 1
Example(int a){a = a; b = c = 1;} //Constructor 2
Example(int a,int b){a = a; b = b; c = 1;} //Constructor 3
Example(int a,int b,int c){ a = a; b = b; c = c;} //Constructor 4
}
```

In the above question of constructor overloading, the following statement will call which constructor

Example obj = new Example (1,2,3);

- ☐ Constructor 2
- ☒ Constructor 4
- ☐ Constructor 1
- ☐ Type mismatch error

Question No: 30

DIRECTIONS for the question: Mark the best option:
The return value of the following code is

```
Class1& test(Class1 obj)
{
    Class1 *ptr = new Class1();
    .....
    return ptr;
}
```

- ☐ object of Class1
- ☒ reference to ptr
- ☐ reference of Class1
- ☐ object pointed by p