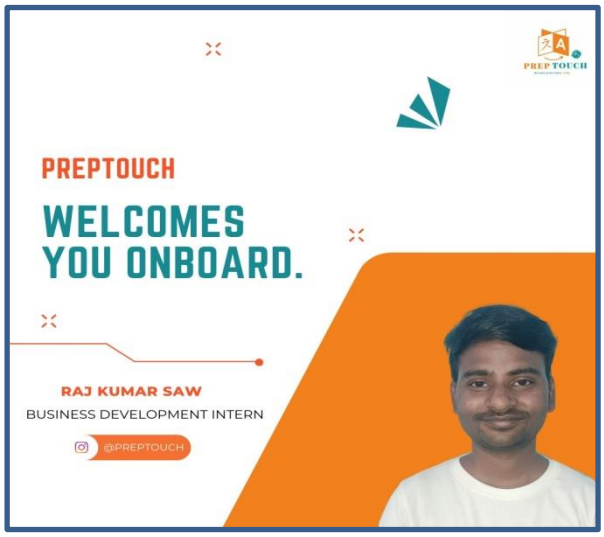

hitbullseye

HITBULLSEYE

LEVEL 1: LPU TECHNICAL TEST 01

Question No: 1

DIRECTIONS *for the question:* Mark the best option:
What will be the value of s if n=127?

```
Read n
i=0,s=0
Function (int n)
while(n>0)
r=n%l0
p=8^i
s=s+p*r
i++
```

```
n=n/10
End While
Return s;
End Function
```

- 27
- 87
- 187
- 120

Question No: 2

DIRECTIONS *for the question:* Mark the best option:
What will be the output of the following pseudocode?

```
For input a = 8 & b = 9.
Function(input a, input b)
 If(a < b)
  return function(b, a)
   elseif(b != 0)
  return (a + function(a,b-1))
 else
return 0
```

- 56
- 72
- 78
- 68

Question No: 3

DIRECTIONS for the question: Mark the best option:

Which of the following will give the best performance?

- O(n)

- O(n!)
- O(n log n)
- O(n^C)

Question No: 4

DIRECTIONS *for the question:* Mark the best option:
What will be the output of the following programs:

```
# include
        int main( )
        {
            while ( 'a' < 'b' )
                printf ( "malayalam is a palindrome\n");
            return 0;
        }
```

- malayalam is a palindrome
- No Output
- Compile Time Error
- Run Time Error

Question No: 5

DIRECTIONS *for the question:* Mark the best option:
What will be the output of the following programs:

```
# include
        int main( )
        {
            int i;
            while (i <= 10 )
            {
                printf ( "%d\n", i);
                i = i + 1;
```

```
        }
        return 0;
    }
```

- 20
- 10
- Garbage Value
- No ouput

Question No: 6

DIRECTIONS *for the question:* Mark the best option:
What will be the output of the following programs:

```
#include
    int main( )
    {
        float x = 1.1 ;
        while (x = = 1.1 )
        {
            printf ( “%f\n”, x ) ;
            x = x - 0.1 ;
        }
        return 0 ;
    }
```

- 1.1
- 1.0
- Compile Time Error
- No Output

Question No: 7

DIRECTIONS *for the question:* Mark the best option:
Consider IntQueue is an integer queue. What does the function

fun do?

```
void fun(int n)
{
   IntQueue q = new IntQueue();
   q.enqueue(0);
   q.enqueue(1);
   for (int p = 0; p< m; i++)
   {
      int a = q.dequeue();
      int b = q.dequeue();
      q.enqueue(b);
      q.enqueue(a + b);
      ptint(a);
   }
}
```

- Prints numbers from 0 to m-1
- Prints numbers from m-1 to 0
- Prints first m Fibonacci numbers
- Prints first m Fibonacci numbers in reverse order

Question No: 8

DIRECTIONS *for the question:* Mark the best option:

Predict the output of

```
char *concat (char *s1,char *s2)
{
int i1 = strlen(s1), i2 = strlen(s2), i, j;
char s[256];
strcpy(s,s2);
for (i=i1, j=0; j < i2; j++, i++)
s[i] = s2[j] ;
 s[i] = '\0';
return s;
}
```

```
main( )
{
puts(concat(“NEWDELHI”, “KOLKATA”));
}
```

- KOLKATA
- NEW DELHI KOLKATA
- KOLKATA NEW DELHI
- NEW DELHI

Question No: 9

DIRECTIONS *for the question:* Mark the best option:
What is the output of following code ?

```
class base
{
public:
void baseFun(){ cout<<"from base"<<endl;}< div="" style="user-
select: text !important;">
};
class deri:public base
{
public:
void baseFun(){ cout<< "from derived"<<endl;}< div=""
style="user-select: text !important;">
};
void SomeFunc(base *baseObj)
{
baseObj->baseFun();
}
int main()
{
base baseObject;
SomeFunc(&baseObject);
deri deriObject;
```

```
SomeFunc(&deriObject);
}</endl;}<>
</endl;}<>
```

- from base
  from base
- from base
  from derived
- from derived
  from base
- from derived
  from derived

Question No: 10

DIRECTIONS *for the question:* Mark the best option:
Consider the following c program

```
#include
int main()
{
float total=0.0,c=1.0,d=2.0;
While(d/c>0.001)
{
d=d+d;
total=total+d/c;
Printf(“%f”,total);
}
}
```

- 8
- 9
- 11
- 10

Question No: 11

DIRECTIONS *for the question:* Mark the best option:
What is the output of the following program

```
#include
main()
{
float s;
 s=10/3;
printf(“%d”,s);
}
```

- 3.0
- 3.3
- Warning message
- None of these

Question No: 12

DIRECTIONS *for the question:* Mark the best option:
In the following code fragment Q is queue of integers:

```
Q. insert(1);
while(!Q. is empty())
{
Int f=Q. getfront();
If(f>10)
F=Q. dequeue;
else
Q. enqueue(f+1);
}
```

The last time through this loop, what value is removed from the queue.

- 1

- 9
- 10
- Can't be determined - infinite loop

Question No: 13

DIRECTIONS *for the question:* Mark the best option:
Consider the code fragment written in C below :

```
void f (int n)
{
  if (n <=1)  {
   printf ("%d", n);
  }
  else {
  f (n/2);
  printf ("%d", n%2);
  }
}
```

What does f(173) print?

- 010110101
- 010101101
- 10110101
- 10101101

Question No: 14

DIRECTIONS *for the question:* Mark the best option:
The code written below will lead output:

```
Void main(
{
int suite=1;
```

```
Switch (suite);
{
Case 0: printf (“Its Night”);
Case 1: printf (“Its Midnight”);
}
}
```

- Error in the code
- Its Night
- Its Midnight
- None of these

Question No: 15

DIRECTIONS *for the question:* Mark the best option:
The code written below will give the output as:

```
#include
#include
Void main()
{
Char suit = 3;
{
Case 1    : printf (“AMCAT”);
Case 2   : printf (“All students are intelligent”);
Default : printf (“All are MCQs”);
}
Printf (“do you like AMCAT?”);
}
```

- AMCAT
- All students are intelligent
- All are MCQs

- do you like AMCAT?

Question No: 16

DIRECTIONS *for the question:* Mark the best option:
The algorithm shown below will lead approximate output?

(Assume a>b, ε >0)
w=a;
v=b;
while (w – v > ε)
{
w = (w + v) / 2;
v = a/w;
}
Print(w) ;

- $a^{1/3}$
- $a^{1/2}$
- log a
- m^2

Question No: 17

DIRECTIONS *for the question:* Mark the best option:
Below is a small segment of C code is shown:

int a,b;
a = 1;
while (a <=b)
a = a*2;

How many numbers of comparisons are made in the execution of loop for any b > 0?

- $[\log_2 b] + 1$
- b
- $[\log_2 b]$
- $[\log_2 b] + 2$

Question No: 18

DIRECTIONS *for the question:* Mark the best option:
Below is a class definition in an imagined object oriented language is shown, which supports inheritance and uses dynamic binding. It should be noted that the language should not be assumed either Java or C++, although the syntax is similar.

A program fragment is as shown:

```
Mx = new N ();
Ny = new N ();
Mz = new N();
x. f(1);
((M)y),f(1);
z.f(1);
```

here ((M)y) is a typecast of y to M. The output produces by executing the above program fragment will be

- 2 2 2
- 2 1 1
- 2 1 2
- 1 2 1

Question No: 19

DIRECTIONS *for the question:* Mark the best option:

The output of the following code will be

```
#include
int main()
{
int x,y, temp;
Clrscr();
x=10,y=20;
Printf("before swapping x = %d and y =%d",x,y);
temp = x;
x = y;
y = temp;
printf("after swapping x=%d and y=%d",x,y);
}
```

- x= 20, y= 10; x= 10, y= 20
- x= 10, y= 20; x= 20, y= 10
- x= 30, y= 10; x= 10, y= 30
- x= 20, y= 20; x= 20, y= 20

Question No: 20

DIRECTIONS *for the question:* Mark the best option:
The output of the following C program will be

```
#include
void main()
{
Unsigned int m = 32;
printf ("%x /n",~m);
return 0;
}
```

- ddfd
- ffdf

- fffff
- dddd

Question No: 21

DIRECTIONS *for the question:* Mark the best option:
What will be the values of x, y, z after the execution of following statements?

```
int x, y ,z;
y=10;
z=12;
x=y++ + z++;
```

- x = 27, y = 11, z = 16
- x= 22, y = 11, z = 13
- x= 25, y = 10, z = 15
- x = 27, y = 10, z = 15

Question No: 21

DIRECTIONS *for the question:* Mark the best option:
What will be the values of x, y, z after the execution of following statements?

```
int x, y ,z;
y=10;
z=12;
x=y++ + z++;
```

- x = 27, y = 11, z = 16
- x= 22, y = 11, z = 13
- x= 25, y = 10, z = 15
- x = 27, y = 10, z = 15

Question No: 23

DIRECTIONS *for the question:* Mark the best option:

```
void main()
{
int a=10, b=20;
char x=1, y=0;
if(a,b,x,y)
{
printf("EXAM");
}
}
```

- Nothing will be printed
- XAM is printed
- exam is printed
- Compiler Error

Question No: 24

DIRECTIONS *for the question:* Mark the best option:

What is the output of the given program

```
Void foo ( int a, int sum) {
                int m = 0, n= 0;
                if ( a = = 0) return;
                m = a % 10;
                n = a/10;
                sum = sum + m;
                foo( n, sum);
                printf ("%d",m);
                }
                int main () {
                int z = 2048, sum = 0;
               foo (z, sum);
               printf("%d /n",sum);
```

}

- 2,0,4,8,0
- 8,4,0,2,0
- 2,0,4,8,14
- 8,4,0,2,14

Question No: 25

DIRECTIONS *for the question:* Mark the best option:
Consider the following declarations and mark the suitable output

```
struct list {
int y;
struct list * next;
} * head;
 head.y = 100
```

- Use head ->y = 100
- Use (head*).y = 100
- is an error
- Use (*head).y = 100

Question No: 26

DIRECTIONS *for the question:* Mark the best option:
The declaration

```
union id
{
Char color [12];
int size;
}
M, P;
```

Denotes M and P are variables of type id and

- each has a color value and size
- each can represent either a 12- character color or an integer size at a time
- M and P are same struct variables
- Variables M and P cannot be used simultaneously

Question No: 27

DIRECTIONS *for the question:* Mark the best option:
Consider the following program fragment main ( )

```
{
int  a,b,c;
b = 2;
a = 2*(b++);
c = 2*(++b);
}
```

Which one of the given answers is correct?

- a = 4, c = 6
- a = 3, c = 8
- a = 3, c = 6
- a = 4, c = 8

Question No: 28

DIRECTIONS *for the question:* Mark the best option:
What is the value of variable POLYGON?

```
main ( )
{
int  POLYGON, L, B;
L = B = 2;
POLYGON = (L == B)? 1:0;
```

}

- 0
- 1
- 2
- 0.5

Question No: 29

DIRECTIONS *for the question:* Mark the best option:

```
int main()
{
int a = 1;
int b = 1;
int c = a || --b;
int d = a-- && --b;
printf("a = %d, b = %d, c = %d, d = %d", a, b, c, d);
return 0;
}
```

- a=0,b=0,c=0,d=0
- a=0,b=1,c=1,d=0
- a=1,b=1,c=1,d=1
- a=0,b=0,c=1,d=0

Question No: 30

DIRECTIONS *for the question:* Mark the best option:

Examine following program fragment main ( )

```
{
float balance, loan; balance = 1000.0; loan = balance/10;
if ((balance > 500) && ( loan < 500))
printf("good account ");
if((balance < 500) || (loan < 500))
```

```
printf("caution ! ");
}
```

What is the output of the above program ?

- good account
- caution !
- good account caution !
- None of these