

Knowledge Test – C Language	
Full Name:	
Date:	

1. What is the result when the following program is executed?

```
1  <#include <stdio.h>
2  <int main()
3  <{
4      printf("Name   : Oracle Consultant\n");
5      printf("City    : Cali\n");
6      printf("Phone   : 32089011111\n");
7      printf("Landline number : 5029091222\n");
8      printf("Sport   : Swimming\n");
9      return(0);
10 }
```

- a) main error bad
 - b) Name : Oracle Consultant
City : Cali
Phone : 32089011111
Landline number : 5029091222
Sport : Swimming
 - c) Error
 - d) 0
2. What is the output of the following program?

```
1  <#include <stdio.h>
2  <int main()
3  <{
4      int a[3]={1,2,3};
5      printf("%d %d",sizeof(a), sizeof(a[0]));
6      return(0);
7  }
```

- a) [Warning] excess elements in array initializer
- b) 12,4
- c) 128, 64, 32, 16, 8,9,90,128
- d) 64, 32, 16, 8, 4

3. What is the output of the following program?

```
1  #include <stdio.h>
2  int main()
3  {
4      int a=890;
5      int* b;
6      b=&a;
7      printf("%d %x %d %x %x",a, &a,*b, b, &b);
8      return(0);
9  }
```

- a) Error
 - b) 0
 - c) 800 62fe1c 890 62fe1c 62fe10
 - d) 890 62fe1c 890 62fe1c 62fe10
4. What is the output of the following program?

```
1  #include <stdio.h>
2  int main()
3  {
4      function(0)
5  }
6
7  function(int a)
8  {
9      if(a==3) return;
10     a++;
11     function(a);
12     printf("%d ",a);
13 }
```

- a) 0
 - b) [Error] expected ';' before '}' token
 - c) 3 2 1 with return value 3
 - d) 1 2 3 with return value 1
5. What is the output of the following program?

```
1  #include <stdio.h>
2  int main() {
3      int i, n, t1 = 0, t2 = 1, nextTerm;
4      n=7;
5      printf("La Serie: ");
6
7      for (i = 1; i <= n; ++i) {
8          printf("%d, ", t1);
9          nextTerm = t1 + t2;
10         t1 = t2;
11         t2 = nextTerm;
12     }
13
14     return 0;
15 }
```

- a) La Serie: 0, 1, 1, 2, 4, 6, 10,
- b) La Serie: 0, 1, 1, 2, 3, 5, 8,
- c) Error data pointer invalid
- d) None of the above

6. What is the output of the following program?

```
1  #include <stdio.h>
2  int main() {
3      int base, exp;
4      long long result = 1;
5      base=8;
6      exp=3;
7
8      while (exp != 0) {
9          result *= base;
10         --exp;
11     }
12     printf("Resultado = %lld", result);
13     return 0;
14 }
```

- a) Resultado = 512
- b) 64
- c) Resultado = 64
- d) 0

7. What is the output of the following program?

```
1  #include <stdio.h>
2  int main() {
3      int num, i;
4      num=64;
5      printf("Valor de %d son: ", num);
6      for (i = 1; i <= num; ++i) {
7          if (num % i == 0) {
8              printf("%d ", i);
9          }
10     }
11     return 0;
12 }
```

- a) Valor de 64 son: 1 2 4 8 16 32 64
- b) 1 2 4 8 16 32 64
- c) [Error] expected ')' before ';' token
- d) Valor de 64 son: 1 2 4 6 16 32 64

8. What is the output of the following program?

```
1  #include <stdio.h>
2
3  int main() {
4      int i, n;
5      float arr[100];
6      n=11;
7      arr[0]=91;
8      arr[0]=90;
9      arr[0]=119;
10     arr[0]=229;
11     arr[0]=339;
12     arr[0]=349;
13     arr[0]=29;
14     arr[0]=49;
15     arr[0]=69;
16     arr[0]=779;
17     arr[0]=976;
18     arr[0]=3;
19     for (i = 1; i < n; ++i) {
20         if (arr[0] < arr[i])
21             arr[0] = arr[i];
22     }
23     printf("El elemento es = %.2f", arr[0]);
24     return 0;
25 }
```

- a) 976
- b) 3
- c) 0
- d) None of the above

9. What is the output of the following program?

```
1  #include <stdio.h>
2  int main() {
3      char s[] = "Un Buen Cafe durante el examen";
4      int i;
5      for (i = 0; s[i] != '\0'; ++i);
6      printf("El resultado será nada menos: %d", i);
7      return 0;
8  }
```

- a) El resultado será nada menos: 30
- b) 30
- c) Un Buen Cafe durante el examen 30
- d) 0

10. What is the output of the following program?

```
1  ✓ #include <math.h>
2  #include <stdio.h>
3
4  int convert(long long n);
5
6  int main() {
7      long long n;
8      n=890;
9      printf("%lld Valor 1 = %d valor 2", n, convert(n));
10     return 0;
11 }
12
13 int convert(long long n) {
14     int dec = 0, i = 0, rem;
15     while (n != 0) {
16         rem = n % 10;
17         n /= 10;
18         dec += rem * pow(2, i);
19         ++i;
20     }
21     return dec;
22 }
```

- a) 890 Valor 1 = 50 valor 2 100001
- b) 890 Valor 1 = 50 valor 2
- c) 11101101
- d) 0

11. What is the output of the following program?

```
1  #include <stdio.h>
2  int addNumbers(int n);
3
4  int main() {
5      int num=20;
6      printf("Suma = %d", addNumbers(num));
7      return 0;
8  }
9
10 int addNumbers(int n) {
11     if (n != 0)
12         return n + addNumbers(n - 1);
13     else
14         return n;
15 }
```

- a) 0
- b) Suma = 0
- c) Suma = 230
- d) Suma = 210

12. What is the output of the following program?

```

1  int main()
2  {
3      int var =10;
4      int *p;
5      p= &var;
6
7      printf ( "direccion de la variable  var es: %p", &var);
8      printf ( "\ndireccion de la variable  var es: %p", p);
9      printf ( "\nvalor de la variable var es: %d", var);
10     printf ( "\nvalor de la variable var: %d", *p);
11     printf ( "\nvalor de la variable var: %d", *( &var));
12     printf( "\nvalor de la variable var: %p", p);
13     printf ( "\nvalor de la variable var: %p", &p);
14
15     return 0;
16 }

```

- a) 0
- b) direccion de la variable var es: 000000000062FE1C

direccion de la variable var es: 000000000062FE1C

valor de la variable var es: 10

valor de la variable var: 000000000062FE1C

valor de la variable var: 000000000062FE1C

valor de la variable var: 000000000062FE1C

valor de la variable var: 10
- c) Compilation error
- d) dirección de la variable var es: 000000000062FE1C

dirección de la variable var es: 000000000062FE1C



valor de la variable var es: 10

valor de la variable var: 10

valor de la variable var: 10

valor de la variable var: 000000000062FE1C

valor de la variable var: 000000000062FE10