

TCS Digital/NQT Programming MCQs - With Answers

1. What will be the output?

```
int a = 5;
```

```
printf("%d", a++);
```

A. 5 B. 6 C. Garbage D. Error

Answer: A

2. Which of the following is a valid keyword in C?

A. var B. new C. static D. function

Answer: C

3. What is the size of `int` in most 32-bit compilers?

A. 2 bytes B. 4 bytes C. 8 bytes D. Depends on OS

Answer: B

4. How many times will this loop execute?

```
for(int i=0; i<5; i++);
```

A. 0 B. 5 C. Infinite D. 1

Answer: B

5. What is the output of this?

```
int a = 10;
```

```
if (a = 5)
```

```
printf("True");
```

```
else printf("False");
```

A. True B. False C. Error D. Nothing

Answer: A

6. What is the index of last element in array `int arr[10];`?

A. 10 B. 9 C. 11 D. 0

Answer: B

7. Which function is used to find length of a string in C?

A. strlen() B. length() C. size() D. strlen()

Answer: A

8. What is the output?

```
int a = 10;
```

```
int *p = &a;
```

```
printf("%d", *p);
```

A. Address of a B. 10 C. Garbage D. Error

Answer: B

9. What does `*` operator do in pointers?

A. Creates pointer B. Allocates memory C. Dereferences pointer D. Copies value

Answer: C

10. What is the output?

```
int x = 5;
```

```
int *p = &x;
```

```
*p = 10;
```

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

A. 5 B. 10 C. Address D. Error

Answer: B

11. What will be printed?

```
void fun(int x) {
```

```
    if(x == 0) return;
```

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

```
    fun(x - 1);
```

```
}
```

`fun(3);`

A. 3 2 1 B. 1 2 3 C. 3 2 1 0 D. Error

Answer: A

12. Which keyword is used to return control from a function?

A. exit B. stop C. return D. break

Answer: C

13. Which function is used for dynamic memory allocation in C?

A. `alloc()` B. `malloc()` C. `new()` D. `free()`

Answer: B

14. What does `free()` function do?

A. Creates memory B. Deletes file C. Releases allocated memory D. Formats memory

Answer: C

15. Time complexity of binary search is:

A. $O(n)$ B. $O(\log n)$ C. $O(n \log n)$ D. $O(n^2)$

Answer: B

16. Which algorithm has worst-case $O(n^2)$?

A. Merge Sort B. Quick Sort C. Bubble Sort D. Binary Search

Answer: C

17. What is the output?

```
int x = 5;
```

```
printf("%d %d", x++, ++x);
```

A. 5 6 B. 6 6 C. Undefined D. Error

Answer: C

18. What is the output?

```
int a = 1;
```

```
switch(a) {
```

```
case 1: printf("One");  
  
default: printf("Default");  
  
}
```

A. One B. Default C. OneDefault D. Error

Answer: C

19. Output of this?

```
int a = 10;  
  
printf("%d", sizeof(a++));
```

A. 10 B. 4 C. Error D. Depends

Answer: B

20. Which header file is required for `printf()`?

A. `stdio.h` B. `stdlib.h` C. `conio.h` D. `string.h`

Answer: A

21. What is a NULL pointer?

A. Points to 0 B. Undefined C. Garbage D. Random

Answer: A

22. What is a segmentation fault usually caused by?

A. Compiler error B. Infinite loop C. Illegal memory access D. Missing semicolon

Answer: C