1) What is a pointer in C programming language?

A. A variable that stores the address of another variable

B. A variable that stores the value of another variable

C. A data type that can store both numeric and character values

D. A keyword that allows memory allocation

Answer: A

2) What is the output of the following code?

int main() {

int a = 10;

int \*p = &a;

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

return 0;

}

A. 10

B. The address of the variable a

C. The value of the pointer p

D. A compilation error

Answer: A

3) What is the correct way to declare a pointer variable in C?

A. int ptr;

B. int \*ptr;

C. pointer int;

D. pointer \*int;

Answer: B

4) What is the value of a pointer variable if it is not initialized?

A. NULL

B. 0

C. Garbage value

D. Depends on the compiler

Answer: C

5) What is the difference between a pointer and an array in C?

A. A pointer can store only one memory address, whereas an array can store multiple values

B. A pointer is a variable that stores the address of another variable, whereas an array is a collection of similar data types

C. A pointer cannot be used to traverse an array, whereas an array can be traversed using pointer arithmetic

D. There is no difference between a pointer and an array in C

Answer: B

6) What is a NULL pointer?

A. A pointer that points to the first element of an array

B. A pointer that points to a memory address with no value

C. A pointer that has a value of 0

D. A pointer that has not been initialized

Answer: C

7)What is the output of the following code?

int main() {

int arr[5] = {1, 2, 3, 4, 5};

int \*p = arr;

printf("%d", \*(p+2));

return 0;

}

A. 3

B. 4

C. 5

D. A compilation error

Answer: A

8) What is pointer arithmetic in C?

A. The arithmetic operations performed on the values of a pointer

B. The arithmetic operations performed on the addresses of a pointer

C. The arithmetic operations performed on the memory allocated to a pointer

D. There is no such thing as pointer arithmetic in C

Answer: B

9) What is a function pointer in C?

A. A pointer that points to the memory location of a function

B. A pointer that points to a function's return value

C. A pointer that points to the parameters of a function

D. A pointer that points to a function's local variables

Answer: A

10) What is a dangling pointer?

A. A pointer that points to a memory location that has been deallocated

B. A pointer that points to a memory location that has not been initialized

C. A pointer that points to a memory location with garbage values

D. A pointer that points to a memory location outside the allocated memory

Answer: A