16 Lecture - CS201

Important Mcqs

1.	What is the value of the pointer variable ptr after the following code is executed?
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	<pre>int *ptr: int x = 5; ptr = &x</pre>
	a) 0 b) 5 c) Memory address of x d) Error
	Answer: c) Memory address of x
2.	Which operator is used to access the value at a memory location pointed to by a pointer? a) & b) * c) \$ d) #
	Answer: b) *
3.	What is the purpose of a null pointer? a) It points to the memory location containing 0. b) It points to the memory location containing NULL. c) It is a pointer that has not been initialized. d) It is a pointer that points to the beginning of an array.
	Answer: b) It points to the memory location containing NULL.
4.	What is the output of the following code?
	perl
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	<pre>int arr[3] = {1, 2, 3}; int *ptr = &arr[1]; printf("%d", *ptr);</pre>
	a) 1 b) 2

c) 3 d) Error

Answer: b) 2

5. What is the output of the following code?

perl

int arr[3] = {1, 2, 3}; int *ptr = arr; printf("%d", *(ptr + 2))

- a) 1
- b) 2
- c) 3
- d) Error

Answer: c) 3

- 6. What is the difference between a pointer and a reference?
 - a) A pointer is a variable that holds the memory address of another variable, while a reference is an alias for another variable.

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- b) A pointer is a reference to another variable, while a reference is a variable that holds the memory address of another variable.
- c) There is no difference between a pointer and a reference.
- d) A pointer can be used with any data type, while a reference is limited to specific data types.

Answer: a) A pointer is a variable that holds the memory address of another variable, while a reference is an alias for another variable.

- 7. What is the purpose of the & operator in pointer operations?
 - a) It returns the memory address of a variable.
 - b) It dereferences a pointer variable.
 - c) It assigns a value to a pointer variable.
 - d) It tests a pointer for a null value.

Answer: a) It returns the memory address of a variable.

- 8. What is a dangling pointer?
 - a) A pointer that points to a memory location that has been freed.
 - b) A pointer that points to a null value.
 - c) A pointer that has been assigned an incorrect memory address.
 - d) A pointer that points to the beginning of an array.

Answer: a) A pointer that points to a memory location that has been freed.

9. What is the output of the following code?

perl

int arr[3] = {1, 2, 3}; int *ptr = arr; *ptr = 4; printf("%d", arr[0]);

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- a) 1
- b) 2

- c) 3
- d) 4

Answer: d) 4

- 10. What is the purpose of pointer arithmetic?
 - a) To perform arithmetic operations on the memory locations pointed to by pointers.b) To perform arithmetic operations on the values