

# 4 Lecture - CS410

## Important Mcqs

### 1. What is a structure in C/C++?

- a) A set of related functions
- b) A collection of variables of different data types
- c) A control flow statement
- d) A loop construct

**Solution: b) A collection of variables of different data types**

### 2. How do you access a member inside a structure in C/C++?

- a) Using the dot (.) operator
- b) Using the arrow (->) operator
- c) Using the at (@) symbol
- d) Using the pound (#) symbol

**Solution: a) Using the dot (.) operator**

### 3. What is the size of an empty structure in C/C++?

- a) 0 bytes
- b) 1 byte
- c) 4 bytes
- d) Depends on the architecture of the machine

**Solution: b) 1 byte**

### 4. What is the purpose of unions in C/C++?

- a) To define custom data types
- b) To group related variables

- c) To save memory by sharing memory among variables
- d) To implement conditional statements

**Solution: c) To save memory by sharing memory among variables**

**5. Which operator is used to access a member inside a union in C/C++?**

- a) Dot (.) operator
- b) Arrow (->) operator
- c) Colon (:) operator
- d) Double-colon (::) operator

**Solution: a) Dot (.) operator**

**6. What happens if you modify one member of a union and then access another member?**

- a) It is not allowed to modify union members individually
- b) The other member retains its old value
- c) It results in an error
- d) The behavior is undefined

**Solution: d) The behavior is undefined**

**7. Which statement is true about the alignment of structure members?**

- a) All members are aligned at even memory addresses
- b) The alignment depends on the order of declaration
- c) The alignment is automatic and doesn't follow any rule
- d) The alignment depends on the data type of the members

**Solution: d) The alignment depends on the data type of the members**

**8. What is the keyword used to define a union in C/C++?**

- a) class
- b) structure
- c) union

d) typedef

**Solution: c) union**

**9. Can a structure have another structure as its member in C/C++?**

- a) Yes, but only one level deep
- b) No, structures cannot have other structures as members
- c) Yes, there is no such limitation
- d) Only if the structure is empty

**Solution: c) Yes, there is no such limitation**

**10. What is the primary difference between a structure and a union in C/C++?**

- a) A structure can hold variables of different data types, but a union cannot.
- b) A union can hold variables of different data types, but a structure cannot.
- c) A structure and a union are the same; there is no difference.
- d) The primary difference depends on the programming language being used.

**Solution: a) A structure can hold variables of different data types, but a union cannot.**