20 Lecture - CS201

Important Subjective

1. What is a structure in programming?

Answer: A structure is a user-defined data type that allows a programmer to group together related variables of different data types under a single name.

2. How do you declare a structure in C programming?

Answer: A structure is declared using the keyword "struct" followed by the name of the structure and the members enclosed in curly braces. For example: struct student { char name[20]; int age; float marks; };

3. What is the difference between a structure and a union?

Answer: A structure is a user-defined data type that allows a programmer to group related variables of different data types, while a union is a user-defined data type that allows a programmer to define a variable that can hold different data types at different times.

4. How are the members of a structure accessed in C programming?

Answer: The members of a structure are accessed using the dot (.) operator. For example: struct student s;

s.age = 20;

5. **Can structures be passed as arguments to functions?** Answer: Yes, structures can be passed as arguments to functions in programming.

6. How can you assign values to the members of a structure in C programming? Answer: The members of a structure can be assigned values using the dot (.) operator. For example: struct student s; s.age = 20; s.marks = 85.5;

7. Can a structure have a pointer as a member?

Answer: Yes, a structure can have a pointer as a member in programming.

8. What is the purpose of typedef in C programming with regards to structures?

Answer: The purpose of typedef in C programming is to create an alias or alternate name for a structure, making it easier to use in code. For example: typedef struct { char name[20]; int age; float marks; } student;

9. How can you access the members of a structure using a pointer? Answer: The members of a structure can be accessed using a pointer using the arrow (->) operator. For example: struct student *ptr; ptr->age = 20;

10. What is the difference between a structure and an array of structures?

Answer: An array of structures is a collection of structures of the same type stored in contiguous memory locations, while a structure is a single instance of a user-defined data type.