Assignment - 17

what is mean by function overloading?

- o overloading is a type of compile time polymorphism. (Early Binding)
- o Function overloading is concept in which we make same name function with different parameter.
- · Function overloading = Same name + Diffn. Prototype
- o for e.g class Demos

int Add (int A, int B) {

3

int Add (int A, int B, int c) {

- 4.2 why function overloading is considered as compile time polymorphism?
 - o Function overloading is considered as compile

 polymorphism because we write and modify

 name & parameter of function

 at the time of compilation.

- or the memory will be allocated at the Run-time but calculation are made at the time of compilation.
- 3. what is use of function overloading a
- Function overloading is used when

 we wants to perform one operation (consider

 Addition) but prototype is different |

 data type is different, then programmer

 doesint need to remember each function

 name. He simply use concept of

 overloading.
- 4. what are the scenario in which we overload the function.
- -> Suppose we want to perform addition of

 two numbers & we do no have different

 porameters with different datatype.

 In this case we can overload the

 the function.

class Demo &

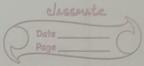
Example: int add (int a, int b) & 1/3

int add (float a, float b) \$113 int add (int a, int b, int c) \$119 4:

what is mean by name mangling & name decoration? why return value is not considered as function overloading criterial . The geturn value is not considered as function overloading criateria because function overloading can be determined by function's prototype like name & parameter list. o for eg int add (int a int b) retern a+b; 97 double [int] add (int a , int 6) {

return (double) (a+b); - It generates ambiguity. add (5,10); 11 which function should called9 add (5,10); 11 Ambiguity.

P.7 what are the scenarios in which we cannot perform function overloading o Function overloading cannot be perform if o function declarations that differ only in the return type. [Ditfn. Ret) o Member function declarations with same name & same parameter list cannot be overloaded if any of them is a Static member function. · Parameter declarations that differ only in pointer * versus an array [] are equivalent that is the array declaration is adjusted to become a pointer declaration int fun (int * P+8) int fun (int ptr []) // Not allowed overloading ambiguity, [at time of overloading Predict the output class Demo f public: woid fun (int i) { cout << " First defination " < end! :



void fun (int i. int j) ocut << "second Defination" Le end 1; int main () Demo obj; obj. fein (10); obj. fun (10,20); beturn o; output: First defination Second defination Predict output of Below code output: Third defination First defination Second defination 9.10 Draw object layout & class Diagram of below eade a explain its internal working in detail.

Explain which type of inheritance is used in class Base void funcs int i, j: { coutes " Base"; static int k: Base(1

		int main()
	int Base :: K = 10;	5
	class perived : publ	ic Base Base bobj;
		perived dobi:
	of public:	cout << sizeof(bobj);
	int x, y;	cout << size of (dobj);
	Derived ()	cout << bobj.i;
	₹ x=50;	cout << bobj.j;
	y = 60;	cout << dobj. 1;
	3	cout << dobj.j;
	void gun ()	cout « bobj·k;
	4	cout << bobj. x;
	cout << Derived gun".	bobj. func);
	3;	dobj. funcs;
		dobj. guni;
	a Abos ansa as	y returno:
	output: Size of bobj = 8	10 10 11
		20 20 60
	o Bingle level Inheritance is used above code.	
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