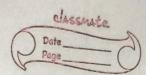
Assignment - 4

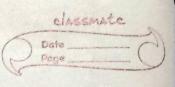
- management?
- -> 1) Static Keyword in Java means that the member belongs to the class, not instances of class.
 - 2) static method: (an he called without creating an instance of the class. It cannot acess instance variables.
 - 3) Non-static methods: Requires an instance of a class to be called and can access both Static & Non-static.
- (9.2) what is role of Static Keyword in context of memory management?
- static method are stored in comethod Area and shared among all instances of class. This helps in saving memory when multiple instances of a class use same data.
- (3) Can static method be overloaded and overriden in Java?

 How are Static variables shared across multiple instances

 of a class?
- Methods with Same name but diff parameters.
 - Static methods cannot be overridden, can be hidden by Subclass with same name.
 - Static variables are shared all instances of class.



	Allied
	access same st
	Useful for storing class-wide data.
Q.4)	what is Significance of final Keyword in Java?
->	of tinal Keyword in Java?
7	Final variable: once initialized, Cannot be changed
	Final Method: cannot be overriden by subclasses, ensuring that the
	De Davidut and Coll
	Einal class: connot be subclassed, meaning no other class
	A STATE OF THE STA
Q.5)	What are narrowing and widening Governion?
_9	Widening Conversion: Auto conversion from Smaller type to a larger type. Tava handles this implicitly and Saftely.
	narrowing Goversion: Explicit Goversion from a larger type to a smaller type (cs double to int). May cause data loss.
2.6)	Example of above:
->	int a = 5: float a = 5.67 f;
	float b = a: // widening int b = (int) a: //n arrowing
(9.7)	How does Java hardle Potential loss of precision during
	narrowing Conversion?
->	Java truncates value during narrowing conversions, mouning
	the fractional Part is discarded.
	co:- Castino 5.67 to int results in 5.



- D. 8) Exploin automatic widening Goversion in Java?

 Tava Automatically Goverts a smaller data type to a larger data type (eg. int to double) to prevent data loss and ensure Generalishinity without explicit costing.

 Generally soft narrowing and widening Goversions on type compactbility and data loss?

 Widening: Generally Safe and automatic. It does not
 - Narmwing: (an cause data loss and requires explicit
 casting Precision may be lost, and Some values may be
 accurately responsented.

explicit casting.

result in data loss and is handled by Java without needing