1· **What is stored in the static heap, stack, and dynamic heap?**

* · **Static Heap**: Class definitions and static variables (if any).
* **Stack**: Method call frames and local variables (item, choice, sc).
* **Dynamic Heap**: Objects (Vase, Statue, Painting) allocated using new.

2· **What are objects in the program?**

* · Instances of Vase, Statue, and Painting created during runtime.

3· **What is the** item **variable storing?**

* · It stores a reference to an Item object, which can point to Vase, Statue, or Painting depending on user selection.

4· **Why must you cast to call the method** inputVase()**/**outputVase()**?**

* · item is declared as Item, and inputVase() is defined in Vase, not in Item.
* Since Item does not have inputVase(), the compiler does not recognize it unless explicitly cast to Vase.

**5.What is the error thrown when you cast it wrong?**

* If an incorrect cast is performed, a ClassCastException occurs at runtime.

**6.What methods can you call if you don’t cast the** item **variable?**

* You can call only methods declared in Item, such as output() and input(), but not subclass-specific methods like inputVase(), outputVase().