**Q: 1** Differentiate between Inheritance, Association, Aggregation and Composition. Draw UML, where applicable. Be concise and to the point.

***Answer.***

**Inheritance**

**inheritance is use to add the functionality to an exiting class . it is the “ kind of relationship”**

**for example if class A is base class and we drive a class B from class A we can say that it is kind of A.**

**Association**

**Association is relationship between two objects. In other words it define the multiplication between two objects. it is denoted by this symbol**

**Aggregation**

**Both the inheritance and aggregation are the class relationship. Aggregation is called has a relationship we say that library has a book or book is the part of library .**

**it is denoted by this symbol**

**aggregation is the special form of association**

**library**

staff

book

**Composition**

**Composition is the special case of aggregation it consist of relationship.**

**It is the stronger form of aggregation**

**Denoted by symbol solid fill diamond**