ISLAMIC UNIVERSITY OF TECHNOLOGY
Course Name: Software Design and Architecture
Course Code**:** SWE 4601

Quiz – 2	**Time: 25 minutes**
Set A	**Marks: 18**
Student: ID:	

Answer the following questions:

1. a) Why can a component not be considered as a microservice?   3 (CO2) (PO1)

   b) Suppose, you are building a social media app like Facebook. Choose an architecture between monolithic and microservice. Justify your answer by mentioning the reasons and advantages you have considered choosing one over another.   5 (CO2) (PO1

   c) Differentiate Orchestration vs. Choreography in Saga pattern of microservices.   5 (CO2) (PO1)

2. Figure 1 represents a normalized relationship among tables. Write two reporting queries that require joining at least 3 tables. Redesign the normalized tables by introducing Reporting Database design. (Partial solution to fulfill the queries is enough).   5 (CO1) (PO2)
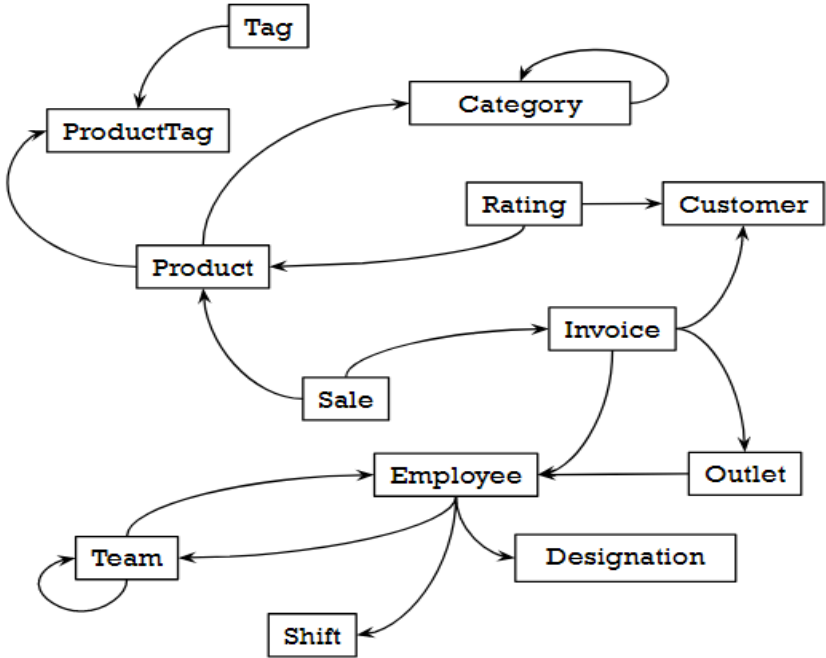

Figure 1: A normalized view of Relational Database for kids' shop software