

Department of Software Engineering

Course Code: SE 213

Course Title: Digital Electronics and Logic Design

Time: 40 min

Total marks: 15

- Q1. A digital circuit is required to toggle a valve switch whenever a triggering signal is applied. Select a suitable flip-flop for this application. 10
- Draw the circuit diagram of the selected flip-flop.
 - Write the truth table and characteristic table of the selected flip-flop.
 - Based on the truth table and characteristic table, explain why the selected flip-flop is suitable for the valve-switching application.
- Q2. 05
- Explain the general procedure for converting one type of flip-flop into another type of flip-flop.
 - Describe how the conversion table is constructed.