ourdiu.com | Shared by Arpita Akter Shampa

**Department of Software Engineering**

**Course Code: SE 213**

**Course Title: Digital Electronics and Logic Design**

**Quiz 03**

**Time: 30 min** **Total marks: 15**

Q1. A Decimal-to-BCD encoder converts decimal inputs into their corresponding 4-bit BCD codes. 08

a. Construct the truth table.
b. Derive the simplified Boolean expressions for the output bits.
c. Draw the corresponding logic circuit.

Q2, Implement the following Boolean function using a suitable decoder. Draw the complete logic circuit with all necessary connections. 07

$$F = AB + \overline{A}\,\overline{C} + B\overline{D}$$