

B Design a 4 bit BCD to Gray code converter.

Q-5 **Attempt all questions** (14)

A What is meant by multiplexer? Explain with diagram and truth table the Operation of 4-to-1 line multiplexer.

B What is meant by decoder? Explain 3-to-8 line decoder with diagram and truth table.

Q-6 **Attempt all questions** (14)

A Explain D type positive edge triggered flip flop.

B Explain the working of the Master Slave J K flip-flop with necessary logic diagram.

Q-7 **Attempt all questions** (14)

A With neat diagram explain the operation of 4- bit serial- in-serial –out register. Draw the timing diagram and give its truth table.

B With necessary sketch explain bi-directional shift register with parallel load.

Q-8 **Attempt all questions** (14)

A Explain the working of 4 bit asynchronous up counter.

B Describe the Comparison of Counters with Registers.

