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Quiz 2 Digital Logic Design

6+4+5

1.Convert the following Boolean equation to a MUX-based implementation:

$F=AB'+A'C$

Use **A and B as select lines.**

2.Explain how a **16:1 MUX** can be constructed using two **8:1 MUXs** and one **2:1 MUX.**

3.i.A **positive-edge triggered JK flip-flop** receives the following inputs:

Clock: _⌐|_⌐|_⌐|_⌐|_

↑ ↑ ↑ ↑

C1 C2 C3 C4 (rising edges)

J: 0---1-------1-----

K: 0-------1---0-----

Q: (Write the output waveform here)

ii.Draw the D flip flop and T flip flop and their truth table

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