

$2^3 = 8 \times 1$

Classtest 3

CSE223: Digital Logic Design

$q = 3$

Time: 50 minutes Marks: 15 ✓

1.	From the given $F(A, B, C, D) = \Sigma(1,3,4,6,8,10,11,14)$, build a <u>4*1</u> multiplexer where selection lines are: A, D.	5
2.	Explain how the JK flip-flop resolves the indeterminate ('invalid') state problem of the SR flip-flop. Provide a clear comparison between the two flip-flops and illustrate your explanation with truth tables and behavior at the clock edge.	5
3.	From the given timing diagrams, find Q and Q' diagram.	5