

**First Mid Semester Examination, April 2024**

**DCES CS-203**

**Branch : AL Semester: 1<sup>st</sup>**

**Time 1:30 Hrs**

**Max. Marks 20**

**Note: All questions are compulsory.**

**Q.1 Write the equation using k map.  $\sum(0, 2, 4, 6, 7, 12, 14)$  & d(8,10)**

**(CO 1 5marks)**

**OR**

**Q.1 Explain 8x1 Multiplexer with truth table and equations.**

**Q.2. Explain full Subtractor.**

**OR**

**(CO1 5marks)**

**Q.2. Explain Look Ahead carry adder.**

**Q.3. Explain SR Latch.**

**(CO2 5 marks)**

**OR**

**Q.3 Give introduction to Transparent latch & Gated latch.**

**Q.4. Explain SR Flip Flop.**

**(CO2 5 marks)**

**OR**

**Q.4 Explain T Flip Flop**