S.B. Roll No..

DIGITAL ELECTRONICS
3rd Exam/ECE/0195/Feb'2021
(For 2018 Batch onwards)

Duration: 1.15Hrs.   **M.Marks:25**

SECTION-A

Q1. Attempt any three questions.   **3x5=15**
    a.   List difference between analog and digital system
    b.   Describe NAND gate as universal gate
    c.   Define SSI,MSI,LSI and VLSI
    d.   Explain Half Adder
    e.   Difference between multiplexer and demultiplexer
    f.   Explain operation of R-S Flip flop
    g.   Explain working of ring counter

SECTION-B

Q2. Attempt any one question.   **1x10=10**
    i.   Draw and explain full adder circuit
    ii.   Explain working of shift register
    iii.   Minimize the following using K-MAP
        $F(A,B,C,D) = \text{EM} (0,1,2,3,5,7,8,9,11,14)$
    iv.   Explain De Morgan theorem
    v.   Write a short note on the following.   a) Seven segment display   b) Decoder