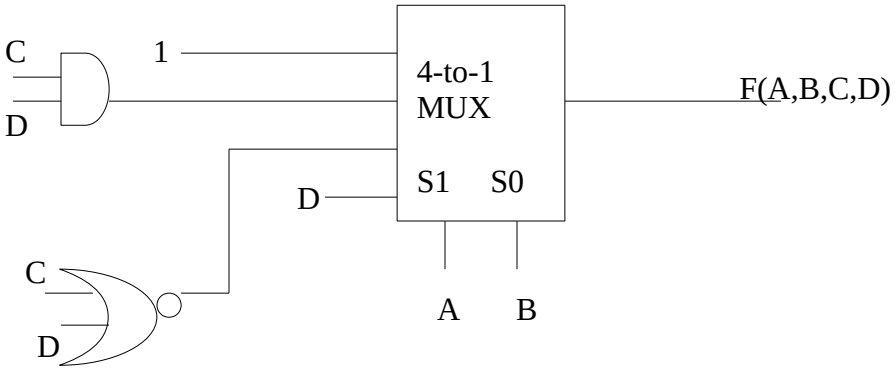
Name: _____ Roll No. _____

Digital Logic Design (Sec C)

Quiz 3 **Time Allowed: 20 min**

Q1. Determine the following function implemented using a multiplexer. Write minterms only e.g., ∑m(31,32,33,34,35,36) **[5 marks]**



F (A,B,C,D) =

Q2) Obaid, Shabaan, Hafeez, Ibrahim, Shehzad and Kulsoom are the students who got selected for an international study and culture tour. During their trip they were supposed to attend four workshops i.e, Android Development, Business Management, and Computer Programming. Shabaan was the only one who attended all the workshops, Obaid skipped Android development while Ibrahim only attended Android workshop, Kulsoom was absent in Computer Programming while Shehzad was absent in Computer Programing and Android Workshop, Hafeez was present only in Computer Programming Workshop. Authorities have decided to give awards accordingly. Those who were present in all workshops will be given medal, certificate and cash prize, those who were present in any two will be awarded with medal and certificate, those who were present in one workshop will be given certificates only. Nothing will be given to those who attended less than two workshops.

You have to draw a circuit which should award students according to the rules defined. Use don't care if necessary [**12 marks**]