Digital logic (CSEUGPC02)

Regular/Supplementary, Mar-2021

Full marks: 80 **Duration: 3 Hours**

(Answer any Eight Questions)

1.	Minimize the Boolean function F = AB+A'C+ BC	**10**
2.	Express the Boolean function G = AB + A'C as product of Maxterms	**10**
3.	Express the Boolean function G = W + X'Y as sum of Minterms	**10**
4.	Perform the subtraction (A-B) of two unsigned binary numbers A=010010 and B=010100 using 2's complement method	**10**
5.	Convert the Hexadecimal number $(306.E)_{16}$ into Octal number (Base 8)	**10**
6.	Add two decimal numbers 182 and 598 using BCD addition method	**10**
7.	Convert the Decimal number $(153.513)_{10}$ into Octal number (Base 8)	**10**
8.	Find the Complement of a Boolean function F(A,B,C,D) = $\sum_m(0,1,2,4,5,6,8,9,12,13,14)$ using K-Map method.	**10**
9.	Find the Essential Prime Implicants of the Boolean function F(w,x,y,z) = $\sum_m(0,2,3,5,7,8,9,10,11,13,15)$ using K-Map method.	**10**
10.	Minimize the Boolean function F(a,b,c,d)= $\sum_m(1,3,7,11,15)+ \sum_d(0,5,8,10)$ using K-Map method.	**10**