*(4) Convert the previous terms into minterms and represent them as m-form.*

XYZ’ --> Is already a min term **m(6)**

XY’ --> XY’Z + XY’Z’ **m(4,5)**

X’Z --> X’YZ + X’Y’Z **m(1,3)**

ABC --> ABCD’ + ABCD **m(14,15)**

AB --> ABC’D’ + ABC’D + ABCD’ + ABCD **m(12,13,14,15)**

C’D --> A’B’C’D + A’BC’D + AB’C’D + ABC’D **m(1,5,9,13)**

*(5) Write down the minterms for each of the following cases:*

(2)n=5, **m19, m24**

10011 11000

AB’C’DE ABC’D’E’

(3) n=6, **m29 ,m31**

011101 011111

A’BCDE’F A’BCDEF

*(6) Write down the maxterms for the previous question (5):*

(2)n=5, M**19, M24**

10011 11000

A’+B+C+D’+E’ A’+B’+C+D+E

(3) n=6, M**29 ,M31**

011101 011111

A+B’+C’+D’+E+F’ A+B’+C’+D’+E’+F’

*(7) Use the minterm form produced in question 5 to produce the maxterms using the relation between them:*

(1) n= 4, m9, m12

F =∑ m(9 , 12)

= Π M(0 1 2 3 4 5 6 7 8 10 11 13 14 15)

**=(A+B+C+D).(A+B+C+D’).(A+B+C’+D).(A+B+C’+D’).(A+B’+C+D)**

**.(A+B’+C+D’).(A+B’+C’+D).(A+B’+C’+D’).(A’+B+C+D).(A’+B+C’+D)**

**.(A’+B+C’+D’).(A’+B’+C+D’).(A’+B’+C’+D).(A’+B’+C’+D’)**

**Thank you for your hard work**