Question 16:
433 g sample of CrI 3 with percentage purity 10%, with background impurity, is completely reacted with 540 ml of H2O2 solution in basic medium, where CrI3 is oxidised into Cr 2 O 7 2 - and IO 4 - , then what will be the volume strength of H2O2 (MCrI3=433g/mole)?

ANSWER: OPTION 1

0.1 mol of CrI3= 1.35 moles of H2O2 (since the sample is 10% pure)

Molarity of H2O2 = moles/volume

= 1.35/0.54

= 2.5M

NORMALITY=n X MOLARITY

N=2 X 2.5=5

N=Volume STRENGTH/5.6

Volume STRENGTH of H2O2= 5 X 5.6

=28