



Department of Physics

Subject & Code No.: Physics of Dielectric Materials P6118

Date of Exam. : 12/ 5 / 2018

Time allowed: 2 hrs.

Answer the following questions:

1. Derive an expression for the locally acting electric field E on a reference dielectric molecule in terms of the external field E and the relative dielectric constant K .

2. a. Ferroelectrics can be divided into two classes. Give a comparison between the properties of each class.
b. What is meant by an electret and how to be prepared ?

3. a. compare between both of polarization and conduction phenomena in a dielectric material .
b. Explain how the molecular properties of a dielectric can be discussed in terms of its macroscopic parameters.