Printing Page(s) : 1 **Paper Code :DSC-104**

Roll No.

B.Sc. (PCM)-4

1st Year Examination, Academic Batch 2017-18

Physics-II (Electricity & Magnetism)

Time : 3 Hours] *[Max. Marks : 100*

***Note**. Attempt any **five** questions. Each questions carry equal marks.*

Q. 1 Explain the reflection and refraction of plane E.M. wave at a plane boundary of the Dielectric?

Q. 2 State and explain Kirchhoff's laws for the distribution of current in a network.

Q. 3 Describe with necessary theory, the method of measuring high resistance by leakage method.

Q. 4 Find the mean and R.M.S.(root mean square) value of the alternating current . Derive the relation between them also.

Q.5 Describe the following.
(i) Mutual Inductance.
(ii) Energy density in magnetic field.

Q.6 What is the molecular polarisability? Explain different type of polarisability?

Q.7 Use **Gauss** law to calculate the electric field intensity due to a uniformly charge sphere at.
(i) An external point.
(ii) An internal point.
(iii) at the surface

Q.8 Find the mean and R.M.S.(root mean square) value of the alternating current . Derive the relation between them also.