Bago University
Department of Geology
Second Semester Examination, September 2019

Second Year
(Geology Specialization)

Geol. 2105
Optical Mineralogy
Time Allowed: (3) Hours

Answer any Five questions with appropriate sketches wherever necessary.

1. Write notes on the following:

   (a) Polarization by double refraction

   (b) Biaxial indicatrix

2. Classify the following properties under PPL or X.N. Describe properties either under PPL or X.N from the following properties:

   (a) Pleochroism (b) Extinction (c) Twinning (d) Form

   (e) Interference colour (f) Cleavage (g) Isotropism and Anisotropism (h) Inclusion

3. (a) Define polarizing microscope and explain its adjustment.

   (b) Light vibration direction pattern of between crossed nicols.

4. Classified common hornblende and basaltic hornblende.

5. Describe the optical properties of minerals from Mica Group.

6. Write notes on **any two** of the following:

   (a) Quartz (b) Calcite (c) Olivine

7. Compare the optical properties of orthoclase and plagioclase.