

**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA**  
**SCHOOL OF SCIENCE AND SCIENCE EDUCATION**  
**DEPARTMENT OF GEOGRAPHY**

**SECOND SEMESTER 2009/2010 SESSION UNDERGRADUATE EXAMINATION**

**COURSE CODE:** MET 326

**COURSE TITLE:** Atmospheric Boundary Layer

**INSTRUCTIONS:** Answer any four (4) questions of your choice. Credit will be given for the use of specific examples and relevant illustration.

**TIME ALLOWED:** 2½ Hours

1. With the aid of a good diagram, give detailed description of the Atmospheric Boundary Layer.
2. Write explanatory note on the processes involved in the formation of clouds and cloud types within the Troposphere.
3. With the aid of a good diagram, explain the global distribution of atmospheric pressure.
4. Write explanatory notes on the following:
  - (i) Extratropical Cyclones
  - (ii) Polar fronts and the Jetstream
  - (iii) Convective Planetary Boundary Layer
5. Account for the causes of Surface Wind Gradient within the Troposphere.
6. Give a detailed explanation of the processes involved in the formation of rainfall within the tropics.