## DEPARTMENT OF GEOGRAPHY SCHOOL OF SCIENCE AND SCIENCE EDUCATION FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA FIRST SEMESTER EXAMINATION 2009/2010 SESSION

COURSE CODE; MET 311

COURSE TITLE - General Circulation of the Atmosphere 1

TIME ALLOWED: 2Hrs 30 Minutes

**INSTRUCTIONS**: Answer any four questions. The use of relevant diagrams and illustration will be rewarded.

- 1. Using specific examples, differentiate between polar and subtropical jet streams and explain the relevance of jet stream in aviation.
- 2. Discuss the factors of general circulation of the atmosphere
- 3. Write short note on the following:
  - a. Earth's angular momentum
  - b. The trade winds
  - c. The polar winds
  - d. Terrestrial radiation
  - e. Dew point temperature
- 4. Examine the contributions of "Eddy waves theory" in the atmosphere and refinement surface observations.
- 5. Describe the origin and characteristics of four (4) types of local winds
- 6. Explain why places along the coast of West Africa experience two periods of maximum rainfall in the year, whereas further North has one peak period of rainfall.