

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

**SECOND SEMESTER EXAMINATIONS 2011/2012 SESSION  
COURSE CODE: MET 524 (2 units )  
COURSE TITLE: ADVANCED TOPICS IN TROPICAL METEOROLOGY**

**Instructions:** Answer any 4 questions  
**Time Allowed:** 2½ hours

1. a. Draw and explain annual mean pattern of wind and pressure from the equator to the poles.  
b. How does the above shape the seasons at the Tropics?
2. a. What are tropical cyclones?  
b. Describe their geographical and seasonal distributions.
3. Review the recent advances in satellite technology which are having tremendous impacts on the monitoring and prediction of severe tropical weather systems.
4. a. Define the different types of drought you know.  
b. "Deforestation, drought and desertification have more in common than the letter 'D'. They are three-dare devils that constitute an unseen nightmare to human survival. They merge together to produce another dreaded 'D' – Degradation" (olofin, 1993). Expatiate the above statement with specific reference to Nigeria.
5. Explain with clear illustration the formation and characteristics of Easterly waves and West African Line squall.
6. Write short note on any five of the following:
  - a. Jes Streams
  - b. Thunderstorms
  - c. Cyclones and Anticyclones
  - d. Desertification
  - e. Drought
  - f. Climate Change
  - g. Geostropic Wind
  - h. Flood.