

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

SCHOOL OF SCIENCE AND SCIENCE EDUCATION

DEPARTMENT OF GEOGRAPHY

FIRST SEMESTER 2010/2011 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: MET 311

COURSE TITLE: General Circulation of the Atmosphere 1

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

TIME ALLOWED: 2 Hours

1. Identify and explain the role of the tropics in the general circulation of the atmosphere.
2. Why do places along the coast of west Africa experiences two peak period of rainfall in the year, while only one peak occurs further inland.
3. Assess the contributions of "Eddy Wave Theory" in the refinement surface circulation in the atmosphere.
4. Write short notes on any four of the following:
 - a. Saturation vapour pressure
 - b. High and low zonal index
 - c. Earth angular momentum
 - d. Ferrel's Law of Deflection
 - e. Pressure gradient force
- 5a. Differentiate between polar front jet stream and Westerly subtropical jet stream
- b. Enumerate and discuss the importance of northern polar jet stream on earth.
6. Write short notes on the following:
 - a. Fohn winds
 - b. Tornadoes
 - c. Harmattan winds