

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF GEOGRAPHY

FIRST SEMESTER 2013/2014 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: MET 511
COURSE TITLE: ADVANCED PHYSICAL METEOROLOGY
TIME: 2 Hours 30 Mins
INSTRUCTION: ANSWER ANY FOUR (4) QUESTIONS OF YOUR CHOICE

- 1) Draw and explain annual mean wind and pressure pattern from the equator to the poles.
- 2) a) Describe the processes of energy and mass transfer within the atmosphere.
b) Why is the troposphere described as the weather-making layer of the atmosphere.
- 3) Discuss the role of Ozone, Carbondioxide, Water vapour, and Particulates matter in the Earth's radiation balance.
- 4) Discuss with examples the effects of Latitude and Continentality on seasonal variations in mean surface air temperature of the tropics.
- 5) Describe with relevant illustrations the role of the tropics in the General Circulation of the atmosphere.
- 6) What is meant by Albedo? Describe the factors that determine the albedo of a given surface.

GOOD LUCK