

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

FIRST SEMESTER 2011/2012 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: GRY 215

COURSE TITLE: Atmospheric Processes, Weather and Climate

INSTRUCTIONS: Answer **Three** questions. Credit will be given for the use of appropriate illustrations and specific examples

Time allowed: 2hrs 30mins.

1. (a) A tropical cyclone is a warm core system that is vertically stacked and derives its energy from warm ocean waters. Explain the meaning of the underlined words in the sentence and state the **four** stages a tropical cyclone goes through before maturing into a hurricane. (10mks)
(b) Categorise the various scales in the Saffir Simpson scale and state the basis for each category (10mks)
2. Write short notes on the **four** forces that are responsible for the generation of wind.
3. (a) Write short notes on the Radiosonde
(b) Describe five weather elements under the following headings:
 - (i) Definition of the element
 - (ii) Standard unit of measurement
 - (iii) Instrument used in measurement
4. Write short notes on thunderstorms under the following headings
 - (i) Definition
 - (ii) Formation
 - (iii) Life cycle
 - (iv) Types
5. Discuss typical weather associated with Inter-tropical Discontinuity (ITD) over West Africa.