

DEPARTMENT OF GEOGRAPHY

SCHOOL OF SCIENCE AND SCIENCE EDUCATION

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

2nd SEMESTER EXAMINATION, 2009/2010 SESSION

COURSE CODE : MET 322

COURSE TITLE : INT. ATMOSPHERIC THERMODYNAMICS AND PPT PROCESSES

INSTRUCTION : ANSWER ANY THREE (3) QUESTIONS

TIME : 2Hr 30 Mins

1). " The Atmosphere is huge thermodynamic engine driven by the energy received from the sun...." (Ayoade, 1988). Discuss this statement in relation to vertical and horizontal motions in the Atmosphere

2). Discuss with clear illustrations the Bergeron's theory of Precipitation formation

3)a) State and explain the first law of Thermodynamics

b) Expatiate and justify $dE = dQ + dW$

c) Describe the concept of internal energy

4)Write an essay on thunderstorms and the process of lightning formation in the atmosphere

5) write explanatory notes on any four (4) of the following:

a) Adiabatic Process

b) Growth in warm clouds

c) Rain Shower

d)Hail Storm

e) Electric field