## FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA SCHOOL OF TECHNOLOGY EDUCATION DEPARTMENT OF INDUSTIRAL AND TECHNOLOGY EDUCATION SECOND SEMESTER EXAMINATION 2012/2013 SESSION BUILDING ENVIRONMENT AND MAN BUD322 INSTRUCTIONS: Attempt only 3 questions. Each question carries equal marks. Time allowed; 2 Hours.

- 1. A good building design and sound construction does not guarantee the comfort of the occupants. Discuss this in the context of building environment and man (Not more than a page).
- 2a. The purposes of ventilation are basically 3. State them.
- b. The effectiveness of natural ventilation for commercial buildings depend on 5 factors. Briefly discuss them.
- c. Ventilation systems are of 2 types; Natural and Mechanical. Differentiate them in terms of meaning, benefits and application.
- 3a. Define acoustics and its application in man's activities.
  - b. Transduction in acoustics operates on certain principles. Mention them.
  - c. The following are related to sound. Define them in sketches and formula;
  - i. Sound wave ii. Velocity iii. Frequency
- 4. Write short note on the following;
- a. Discharge lamps
- b. Properties of lamp .
- c. Incandescent lamps
- 5a. There are several types of fan to choose from in ventilation. Sketch types only.
- b. Explain 2 factors that should guide the choice of air-conditioning units.
- c. Define the term air-conditioning and the major actions involved in the process.