

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF SCIENCE AND TECHNOLOGY EDUCATION
DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION
SECOND SEMESTER EXAMINATION 2017/2018

COURSE TITLE: BUILDING ENVIRONMENT AND MAN.

COURSE CODE: ITE 348

INSTRUCTION: ANSWER **THREE** QUESTIONS ONLY

TIME: 2HOURS

- 1a. Provision of external work in buildings and its premises are major concerns in today's building construction. Explain various external work that can minimise heat transfer in a building.
- 1b. Explain two (2) essential reasons why you need to consider external work as a part/section of the building construction.
- 1c. List and explain four (4) ways of thermal control in a building.
- 2a. Define the term landscaping
- 2b. What is a greenhouse in building construction?
- 2c. Why is it important to consider greenhouse as a means of thermal control in modern building construction?
- 3a. Write a short note on the following acoustic insulations:
 - i. Acoustic absorption
 - ii. Anechoic chamber
 - iii. Architectural acoustics
 - iv. Building skin envelope
 - v. Interspace noise control
- 3b. List five (5) materials for sound insulation
- 3c. List three (3) ways to improve workplace acoustic and solve workplace sound problems.
- 4a. Planting of flowers close to external building walls serves as aesthetic and functional purposes. Explain the two (2) purposes of thermal control in a building.
- 4b. Explain the two (2) types of thermal control in a building
- 4c. State and explain four (4) ways landscaping can use in fulfilling the aesthetic and functional purpose of a building.
- 5a. Define the following terms and support your answer with a good sketch.
 - i. Conduction
 - ii. Convection
 - iii. Radiation
- 5b. Your client has just considered the initial cost and cost of maintenance of planting trees, flowers and grass in her new building apartment. Is such investment necessary and why?