

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**FACULTY OF THE BUILT ENVIRONMENT**

**DEPARTMENT OF ARCHITECTURE**  
**BACHELOR OF ARCHITECTURE (HONOURS) DEGREE**  
**2010-2011 ACADEMIC YEAR**  
**PART III – FIRST SEMESTER SUPPLEMENTARY EXAMINATIONS –**  
**AUGUST 2011**  
**AAR 3103 – BUILDING SERVICES I**

**Instructions**

***Time: 3 hours***

*Choose any four questions.*  
*Number all sheets*

**QUESTION ONE**

There are four methods of mechanical movement of traffic within buildings. Name the four and give a brief description of how each of them operates. [25]

**QUESTION TWO**

- (a) List the requirements of good lighting in a building. (5 marks)
  - (b) How is glare avoided inside a building? (5 marks)
  - (c) What is “daylight factor”, and how is it computed? (5 marks)
  - (d) Briefly explain pipe earthing and plate earthing. (10 marks)
- [25]

**QUESTION THREE**

Distinguish the direct system from the indirect system of cold water supply inside a building. What are the merits and demerits of each system? [25]

**QUESTION FOUR**

Discuss the installation and use of generators vis-a-vis solar power in providing emergency electricity to buildings. [25]

