

**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA**  
**SCHOOL OF ENVIRONMENTAL TECHNOLOGY**  
**DEPARTMENT OF ARCHITECTURE**

FIRST SEMESTER EXAMINATION FOR 2017/2018 SESSION

**COURSE TITLE:** ADVANCED CONSTRUCTION TECHNOLOGY VI

**COURSE CODE:** ARC 524

**CREDIT UNIT:** 2

**TIME ALLOWED:** 2 HRS

**COURSE LECTURER:** DR A. D. ISAH

**HEAD OF DEPARTMENT:** DR P. AYUBA

**INSTRUCTIONS:** Answer questions one and any other two questions. Be precise with your answers.

**Q1.** a. Describe briefly the following terms:

- i. Pre-stressed Concrete floor.
- ii. Pre-tensioning and Post-tensioning in concrete floors.
- iii. Node connectors.

b. Using a neat diagram describe Grid decking flooring system.

c. Describe the role of post and lintel system in the stability of precast concrete floors.

**20marks.**

**Q2.** a. Using a neat diagram for illustration, briefly describe Hollow block floor system.

b. Briefly describe Lift slab flooring system

**20marks.**

**Q3.** a. Write briefly on the existing types of Timber flooring system.

b. Enumerate and discuss the characteristics of Hull core buildings

**20marks.**

**Q4.** a. Enumerate and discuss the characteristics of cellular structures.

b. Write briefly on the following with examples

- i. Structural systems of buildings
- ii. Structural Components of a building
- iii. Structural elements in buildings

**20marks.**