

**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA**  
**SCHOOL OF SCIENCE AND TECHNOLOGY EDUCATION**  
**DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION**  
**FIRST SEMESTER EXAMINATION 2018/2019**

Course Code: ITE 347

Course Title: Building Construction III (Superstructure)

Instruction: Answer Four Questions Only

Time: 2 Hours

Level: 300

- 1) a. With the aid of neat diagram show the plan of odd and even number courses of the following: i. Flemish Bond ii. English Bond iii. Header Bond iv. Stretcher Bond  
b. Differentiate between pointing and jointing mortar finishing treatment in brickwork
- 2) a. Outline five (5) minimum requirements and two (2) advantages of cavity wall.  
b. Differentiate between load bearing and non load bearing walls
- 3) a. Explain bonding in brick/block work and state three (3) bonding rules that should be observed by bricklayer.  
b. Explain the primary function of dpc/dpm and outline three (3) conditions that make it necessary to be used in building.
- 4) a. State five (5) properties of mortar. In a tabular form write out the mortar mix ratio proportion of cement/sand of the following conditions of use in a building i. Exposed external ii. General external iii. Sheltered internal iv. General internal v. Internal grouting  
b. Explain the performance requirement of window in a building.
- 5) a. Explain the primary function of support over opening in a building and with the aid of a diagram show one type of support to opening in a building  
b. Mention five (5) different types of doors and briefly explain one
- 6) a. Draw a sectional view of a roof and label its parts.  
b. Discuss the processes involved in the production of sand-crete block in Nigerian Block Industries.