

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

Course Code: ITE 347

Course Title: Building Construction (Superstructure)

Instruction: Answer Four Questions Only

Time: 2 Hours

Level: 300

1. a) As a Building Technologist, you are invited to give an orientation on the concept of "**Frame Construction**" before a building project take off that was awarded to your construction industry. Explain four significant areas of concern. **5 Marks**  
b) By means of neat sketches show the following brick terms:  
i) King Closer ii) Queen Closer iii) Half Bat iv) Stretcher v) Header **5 Marks**  
c) Discuss two (2) methods of bridging an opening in a building construction process. **5 Marks**
2. a) Use free-hand sketches to show in isometric view of the first and second courses of the following: i) Flemish bond ii) English bond iii) Header bond. **6 Marks**  
b) Outline the advantages and disadvantages of block work over brick work. **4 Marks**  
c) Explain the following as walling material: i) sheet metal ii) concrete iii) stone **5 Marks**
3. a) Explain the steps involved in the construction of ceiling finishes. **7 Marks**  
b) Mention eight (8) factors to be considered in choice of roof structure. **4 Marks**  
c) Explain four functional requirements of wall in building structure. **4 Marks**
4. a) List and explain two (2) types of doors used in residential building. **4 Marks**  
b) Differentiate between bonded wall and unbounded wall. **4 Marks**  
c) Write short note on the following; i) spiral stair ii) winder stair iii) double stair. **7 Marks**
5. a) State five (5) building regulation requirements for stair. **5 Marks**  
b) Differentiate the functions of the following: i) scaffold and ii) ladder. **5 Marks**  
c) List out the materials used for ceiling finishing in Nigeria. **5 Marks**
6. a) Draw a sectional view of a stair case and label its parts. **5 Marks**  
b) Write short note on the following: i) Beam ii) Column **5 Marks**  
c) Discuss the processes involved in the production of sand-crete block in Nigerian Block Industries. **5 Marks**