

130

**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
FACULTY OF ENVIRONMENTAL TECHNOLOGY
DEPARTMENT OF QUANTITY SURVEYING
FIRST SEMESTER EXAMINATION, 2016/2017 SESSION**

COURSE TITLE: CONSTRUCTION TECHNOLOGY V

CODE: QTS 412

INSTRUCTIONS: ANSWER ALL THE QUESTIONS

TIME ALLOWED: TWO AND HALF HOURS

1. a) Sketch a steel of roof truss. With the aid of neat drawing show the working principles of three of the joints in the steel truss.
b) Explain the term Modular Coordination
2. a) What do you understand by proprietary system in building construction
b) With the aid of neat sketch explain a portal frame.
3. a) What do you understand by a shell roof.
b) With neat drawings demonstrate the working details of the following shell roof:
 - i) Multi-span Barrel vault roof.
 - ii) Double curvature shell roof.
4. a) Explain with neat and large drawings a typical barrel vault expansion joint details.
b) The nature of excavation and the distance at which the excavated soil must be carried to are conditions for selecting the excavating plant for any particular job. With these statements in mind select a suitable plant for loading broken rock and also for loading gravel and similar excavated material. Demonstrate the working principles of the selected plant with neat sketches.
- 5 a) Differentiate between industrialized building system and conventional building system.
b) State four advantages and disadvantages of prefabricated.