

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA  
SCHOOL OF ENVIRONMENTAL TECHNOLOGY  
DEPARTMENT OF QUANTITY SURVEYING



FIRST SEMESTER EXAMINATION 2018/2019 ACADEMIC SESSION  
COURSE CODE: QTS 411 COURSE TITLE: CONSTRUCTION MEASUREMENT IV  
TIME ALLOWED: 2 Hours 30 Minutes CREDIT LOAD: 3 Units  
INSTRUCTION: Answer questions 1&2, and any other ONE question from 3&4. Only  
BESMM3/4 are allowed. All assumptions must be clearly and reasonably stated.

**Question One**

The management of the Federal University of Technology Minna is proposing to construct an additional 3-bedroom bungalow lodge opposite the University gate at GK. You have been consulted as a 400L student of QS department of the institution to 'take off quantities' and 'prepare a draft BOQ' using **DRWNG No QTS411/FUM/2019/01** for the **Incoming Electrical Services (IES) and Mains Installation**, including transformer and plinth, HT and LV cables, poles, carriages and other connections.....(30 Marks)

**Question Two**

**DRWNG No QTS411/FUM/2019/02** is a ground floor plan of the paediatric unit of the proposed hospital development being controlled by a 60A, 4-ways Distribution Board. Use the attached 'Distribution Sheet' and the 'drawing 02' to take off quantities in Final Circuit for the internal Electrical Wiring, including: cable and conduits, fittings and accessories, builders' work, and testing and commissioning work.....(20 Marks)

**Question Three**

Use the attached **DRWNG No QTS411/FUM/2019/03** and Details 'Z' and 'X' to take off for the general lighting installation in the hospital. .... (10 marks)

**Question Four**

The attached **Detail 'C'** is a sectional view of 'Electrical works associated with plumbing and mechanical installation, while **Detail 'Y'** is a cross section of an electric generating set found on the attached **DRWNG No QTS411/FUM/2019/04**. You are required to take off for:

- a. Electrical works associated with plumbing and mechanical installation.....(5 Marks)
- b. Connection to generating house.....(5 marks)