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Federal University of Technology, Minna
School of Environment Technology
Department of Quantity Surveying
Second Semester 2016/2017 Academic Session

Level: 300 level

Course Title: Tendering and Estimating

Course Code: QTS 324

Time: 2 hours

Instructions: 1. Assume reasonable material prices and labour outputs where necessary.
2. Attempt all Questions

- 1 Your Company has been approached to submit an estimate for **trench excavation** work to receive foundation not exceeding 1.5m deep starting 150mm below ground level. Build up rate for the excavation work and determine the contract sum if the total quantity of excavation is 100m^3 . 20marks

- 2 Estimate unit rate for 225mm bed of **hardcore filling** compacted and blinded with fine sand (m^2)
Labour Output:
Laying of stones = $1\frac{1}{2}$ Labour-hours
Labour spreading sand = 0.5 labour-hour 20marks

- 3 Your Company was to bid for a **blockwork** contract in Bida, Niger State, as the company's Quantity Surveyor build up rate for the following;
(v) 225mm blockwork in cement mortar (1:6) laid in stretcher bond.
(vi) What will be the contract sum if the total quantity of the blockwork was 700m^2
Notes (a) Laying of blocks output 9 gang- labours
(b) Mixing mortar = 0.14m^3 at 5 hours/ m^3 per Labourer 20marks

- 4 You are been requested to tender for the reinforcement work of the construction of a Dam. The reinforcement work was quantified to be 30 tonnes. Build up rate for the **12mm diameter high yield steel reinforcement** in beams, columns, slab and staircase. Estimate the total contract sum.
Note: Labour output for cutting, bending and fixing rod = 140 hours 20marks

- 5 Build up rate for **plain in-situ concrete** (1:3:6-19mm Agg) in foundation over 150mm but not exceeding 300mm thick. Material prices; cement = N40,000/tonne, sand = N2,400/ m^3 , Chippings = N9,000/ m^3 . 10/7 mixer = N1200/hr. No poker vibrator. 20marks