MEASUREMENT OF WORKS AND COST ESTIMATION

UNIT CODE: CON/CU/CET/CC/06/6/A

Relationship to Occupational Standards
This unit addresses the unit of competency: Perform Measurement of Works and Cost Estimation

Duration of Unit: 80 Hours

Unit Description
This unit describes competencies required to perform measurement of works and cost estimation. It involves preparing tender documents, taking off quantities, working up dimensions and abstracting measured quantities

Summary of Learning Outcomes

1. Prepare tender documents
2. Take off quantities
3. Work up dimensions
4. Abstract measured quantities

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Prepare tender documents	• Preparation of working drawings • Work specifications • Bill of quantities • Preparation of schedule of rates • Preparation of conditions of contract • Forms of agreement • Forms of tender	• Written tests • Oral • Practical/Projects
2. Take off quantities	• Principles of measurement • Standard methods of measurement/CESMM • Preparation of dimension sheet/paper	• Written tests • Oral • Practical/Projects

	• Preparation of quantities checklist • Computing building/civil works quantities • Booking of dimensions • Booked items description	
3. Work up dimensions	• Timesing of dimensions • Squaring of booked dimensions	• Written tests • Oral • Practical/Projects

4. Abstract measured quantities	• Abstracting sheet
	  o Preparation of abstracting sheet
	  o Transfer of booked quantities
	• Running through dimensions
	  o Symbols used in running through dimensions
		• Written tests
		• Oral
		• Practical/Projects

Suggested Methods of Instruction
- Demonstration by trainer
- Practical work by trainee
- Demonstration videos
- Projects
- Group discussions

Recommended Resources

- Computers
- Office equipment
- Calculators
- Scale rule
- Computer software
- CESSM/SMM
- Stationery
- Dust coat
- First aid kit