



REPUBLIC OF KENYA

**NATIONAL OCCUPATIONAL STANDARDS
FOR
CARPENTRY AND JOINERY CRAFTSPERSON
KNQF LEVEL 5**

PROGRAMME CODE:0722 554B



**TVET CDACC
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EXECUTE TEMPORARY WORKS

UNIT CODE: CON/OS/CAJ/CC/04/5/B

UNIT DESCRIPTION

This Unit describes the competencies required to execute temporary works. It involves selecting, preparing and using materials, tools and equipment, constructing and dismantling trench timbering, constructing and dismantling building formwork/shuttering erecting and dismantling building scaffold and erecting and dismantling building shores

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA (<i>Bold and italicized terms are elaborated in the Range</i>)
1. Select, prepare and use materials, tools and equipment	1.1 Selected appropriate materials for a given temporary work 1.2 Prepared cutting list of materials, tools and equipment as per job requirement 1.3 Constructed given temporary work as per the job requirement 1.4 Exercised economy in the use of materials, tools and equipment as per the work place procedures 1.5 Demonstrated safety and health practices as per the work place procedures
2. Construct and dismantle trench timbering	2.1 Trench timbering materials and tools are determined according to the construction rules and regulations 2.2 Personal protective equipment is selected, fitted and used according to safety rules and regulations 2.3 Trench timbering is constructed as per soil type and site topography 2.4 Trench timbering is dismantled according to site procedures and critical structural safety requirements 2.5 Constructed timbering to a given deep trench 2.6 Housekeeping is conducted as per work place procedures 2.7 Safety and health practices are observed based on OSHA
3. Construct and dismantle building formwork/shuttering	3.1 Formwork material is identified as per structure complexity, job drawings or supervisor instructions

ELEMENT	PERFORMANCE CRITERIA (<i>Bold and italicized terms are elaborated in the Range</i>)
	<p>3.2 Formwork dimensions are determined as per the structural elements to be supported</p> <p>3.3 Personal protective equipment is selected, fitted and used according to safety rules and regulations</p> <p>3.4 Formwork type is erected according to the structural element to be cast</p> <p>3.5 Constructed formwork for stairs</p> <p>3.6 Oiling of timber formwork surface is carried out for easy dismantling after concrete setting</p> <p>3.7 Formwork is fixed into position in accordance with the construction rules and regulations</p> <p>3.8 Formwork is dismantled according to site procedures and critical structural safety requirements</p>
4. Erect and dismantle building scaffold	<p>4.1 Scaffold system is determined as per complexity of the building, engineering design, job drawings or supervisor instructions</p> <p>4.2 Personal protective equipment is selected, fitted and used according to safety rules and regulations and job specifications</p> <p>4.3 Scaffolds are erected to plan according to safe work practices and engineers' specifications</p> <p>4.4 Scaffolds are dismantled according to engineers' specifications, site procedures and critical structural safety requirements</p> <p>4.5 Site cleaned and cleared of all tools, excess material and waste</p>
5. Erect and dismantle building shores	<p>5.1 Type of shore is selected according to the nature of the work</p> <p>5.2 Shoring materials are selected according to the construction rules and regulations</p> <p>5.3 Personal protective equipment is selected, fitted and used according to safety rules and regulations</p> <p>5.4 Shoring is erected as per site conditions and building construction rules and regulations</p> <p>5.5 Shoring is dismantled according to site procedures and critical structural safety requirements</p>

RANGE

Variable	Range
1. Scaffold system may include but is not limited to:	<ul style="list-style-type: none"> • Dependent • Independent
2. Economy may include but is not limited to:	<ul style="list-style-type: none"> • Uses and re-uses • Improvisation • Cleaning and preserving
3. Safety may include but is not limited to:	<ul style="list-style-type: none"> • Working habits • Handling of materials, tools and equipment • Warning signs and lights • Layout at working area
4. Personal protective equipment may include but is not limited to:	<ul style="list-style-type: none"> • Helmets • Safety boots • Gloves • Overall • Reflectors
5. Formwork material may include but is not limited to:	<ul style="list-style-type: none"> • Timber • Metal • Plastic
6. Formwork type may include but is not limited to:	<ul style="list-style-type: none"> • Column formwork • Beam formwork • Floor formwork • Wall formwork • Permanent formwork
7. Trench timbering materials and tools may include but is not limited to:	<ul style="list-style-type: none"> • Timber • Hammer • Metal plates • Pliers • Nails • binding wires
8. Soil type may include but is not limited to:	<ul style="list-style-type: none"> • Firm soil • Loose soil

Variable	Range
	<ul style="list-style-type: none"> • Water logged soil
9. Type of shore may include but is not limited to:	<ul style="list-style-type: none"> • Raking/Inclined shore • Flying/horizontal shore • Dead/vertical shore
10. Shoring materials may include but is not limited to:	<ul style="list-style-type: none"> • Timber • Steel tubes • Bolts and nuts • Screws

REQUIRED KNOWLEDGE AND SKILLS

Knowledge

- Measurement
- Formwork
- Scaffolding
- Soil properties
- Wall construction
- Basic arithmetic
- Technical drawings

Skills

- Measurement skills
- Basic mathematic skills
- Reading skills
- Communication skills
- Construction tools handling skills
- Technical drawing skills

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

1. Critical Aspects of Competency	Assessment requires evidence that the candidate: <ul style="list-style-type: none"> 1.1. Selected, prepared and used appropriate materials, tools and equipment
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	<p>1.2. Constructed and dismantled trench timbering accordingly</p> <p>1.3. Constructed and dismantled building formwork/shuttering appropriately</p> <p>1.4. Erected and dismantled building scaffold accurately</p> <p>1.5. Erected and dismantled building shores carefully</p> <p>1.6. Observed occupational health and safety procedures to create a safe working environment</p>
2. Resource Implications	<p>The following resources should be provided:</p> <p>2.1 Training workshops</p> <p>2.2 Construction tools and equipment</p> <p>2.3 Occupational Safety and health manuals</p> <p>2.4 Construction manuals</p> <p>2.5 Reference textbooks</p> <p>2.6 Qualified trainers</p> <p>2.7 Personal protective equipment</p>
3. Methods of Assessment	<p>Competency may be assessed through:</p> <p>3.1. Practical assignment</p> <p>3.2. Written</p> <p>3.3. Oral interview</p> <p>3.4. Demonstrations</p>
4. Context of Assessment	<p>Competency may be assessed</p> <p>4.1 On job</p> <p>4.2 Off job</p> <p>4.3 During industrial attachment.</p>
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.