



Skills for Employment Investment Program (SEIP)

ASSESSMENT TOOL

FOR

CAD FOR TEXTILES

(TEXTILE SECTOR)

**Finance Division, Ministry of Finance
Government of the People's Republic of Bangladesh**

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PART A – THE ASSESSOR

Instructions to Assessor

Assessment is the process of identifying a candidate's skills and knowledge set against the industry established standards in the workplace. It requires the candidate to consistently and over time demonstrate skills, knowledge and attitude that enable confident completion of workplace tasks in a variety of situations.

In judging assessment evidence, the assessor must ensure that the evidence is:

- authentic (the candidate's own work)
- valid (directly related to the current version of the endorsed competency standard)
- reliable (show that the candidate consistently meets the endorsed unit of competency)
- current (reflects the candidate's current capacity to perform the aspect of work covered by the endorsed unit of competency)
- sufficient (covers the full range of elements in the relevant unit of competency)

There are a number of assessment methods that may be employed including but not limited to:

- written examination
- oral questioning
- practical demonstration

A single unit of competency may be assessed or a group of units of competency may be assessed, either in an actual workplace or a simulated workplace environment.

Conducting Assessment

Prior to commencement of assessment, candidates must have the tasks clearly explained to them. Also, the assessor should provide candidates with clear advice and information about the:

- date, time and place for assessment
- structure of assessment
- number of times performance must be demonstrated or observed
- amount or type of assistance candidates can expect
- assessment environment
- resources required for assessment
- performance standards or benchmarks relevant to the qualification

As well as informing the candidate of what they will be required to do during the assessment, the assessor will also need to explain what evidence they will need to provide in response to the various assessment tasks.

If a candidate is required to submit evidence, any explanation must include specific guidance on:

- what to include as evidence
- how to present the evidence
- how to submit the evidence and to whom

Assessing Competence

Competency-based assessment does not award grades, but simply identifies if the candidate has the skills, knowledge and attitudes to undertake the required task to the specified standard.

Therefore, when assessing competency an assessor has two possible results (assessment decisions) that can be awarded:

- Competent (C)
- Not Yet Competent (NYC)

Competent (C)

If the candidate is able to successfully answer and demonstrate what is required to the expected standard of the assessment criteria, they will be deemed as 'Competent'.

The assessor will award 'Competent' if they feel the candidate has the necessary skills, knowledge and attitudes in all assessment tasks for a given package.

Not Yet Competent (NYC)

If the candidate is unable to answer and demonstrate competency to the expected standard, they will be deemed to be 'Not Yet Competent'.

This does not mean the candidate will need to complete all the assessment tasks again. When applying for reassessment, the focus will be on the specific assessment tasks that were not performed to the required standard.

The candidate may be required to:

- (a) undertake further training or instruction
- (b) undertake the specific assessment task again until they are deemed to be competent

Recording Assessment Information

When all assessment tasks are concluded, the evidence summary sheet should be completed, signed by all parties, and any outstanding activities or issues actioned.

The assessor should ensure that all appropriate forms are completed and signed by all parties.

CHECKLIST FOR ASSESSOR		
Prior to the assessment I have:	Tick (✓)	Remarks
Ensured the candidate is informed about the venue and schedule of assessment.		
Received current copies of the assessment criteria to be assessed, assessment plan and evidence plan.		
Reviewed the assessment criteria and evidence plan to ensure I clearly understood the instructions and the requirements of the assessment process.		
Identified and accommodated any special needs of the candidate.		
Checked the set-up and resources for the assessment.		
During the assessment I have:		
Introduced myself and confirmed identities of candidates.		
Collected the admission slips.		
Put candidates at ease by being friendly and helpful.		
Checked completed self-assessment guide.		
Explained to candidates the purpose, context and benefits of the assessment.		
Ensured candidates understood the assessment process and the assessment procedure.		
Provided candidates with an overview of the assessment criteria to be used.		
Gave specific and clear instructions to the candidates.		
Observed carefully the specified time limits provided in the assessment package.		
Stayed at the assessment area during the entire duration of the assessment activity.		
Ensured notes are made on unusual conditions or situations during the assessment and include these in the report.		
Did not provide any assistance during the assessment or indicated in any way whether the candidate is or is not performing the activity correctly (intervened only for health and safety reasons).		

Implemented the evidence gathering process and ensured its validity, reliability, fairness and flexibility.		
Collected appropriate evidence and matched relevance to the elements, performance criteria, range of variables and evidence guide in the relevant units of competency.		
Explained the results reporting procedure to the candidate.		
Encouraged candidates to seek clarifications if in doubt about the pre- and post-assessment activity procedures.		
Asked candidates for feedback on the assessment.		
Explained legal, health and safety, and ethical issues, if applicable.		
After the assessment I have:		
<p>Provided feedback on the assessment decision. This includes the following:</p> <ul style="list-style-type: none"> ▪ clear and constructive feedback on the assessment decision ▪ information on ways of addressing any identified gaps in competency revealed by the assessment ▪ opportunity to discuss the assessment process and outcome ▪ information on reassessment process (if necessary) ▪ information on appeal (if necessary) 		
<p>Prepared the necessary assessment reports. This includes the following:</p> <ul style="list-style-type: none"> ▪ record the assessment decision using the prescribed rating sheet ▪ maintain records of the assessment procedures, evidence collected and assessment decision ▪ endorse assessment decision to BTEB ▪ prepare recommendations for the issuance of certificate 		
Thanked candidate for participating in the assessment.		

Assessment Evidence Guide

The purpose of assessment is to confirm that an individual can perform to the standards expected by in the workplace, as expressed in the competency standards.

To attain the certificate of **CAD for Textiles**, a candidate must demonstrate competent skill and knowledge in all the units of competency listed below. Upon successful completion of all assessment activities, a candidate shall be awarded with a certificate.

CODE	UNIT OF COMPETENCY
Generic Competencies	
SEIP-TEX-CAD-01-G	Use basic mathematical concepts
SEIP-TEX-CAD-02-G	Apply occupational health and safety (OHS) practice in the workplace
SEIP-TEX-CAD-03-G	Carry out workplace interaction
SEIP-TEX-CAD-04-G	Operate in a team environment
SEIP-TEX-CAD-05-G	Apply basic IT skills
Sector-specific Competencies	
SEIP-TEX-CAD-01-S	Explore the history of textile sector
SEIP-TEX-CAD-02-S	Read and interpret sketches and drawing
Occupation-specific Competencies	
SEIP-TEX-CAD-01-O	Apply basic knowledge of woven structure
SEIP-TEX-CAD-02-O	Understand fundamentals of CAD operation
SEIP-TEX-CAD-03-O	Perform CAD installation and operation
SEIP-TEX-CAD-04-O	Operate software for dobby
SEIP-TEX-CAD-05-O	Operate software for drape
SEIP-TEX-CAD-06-O	Operate software for painting of jacquard design

Assessment Evidence Plan

An assessment evidence plan is a document that assists in establishing what evidence needs to be collected by the assessor to ensure that the candidate meets all the appropriate requirements of the competency standard. It usually contains a record of:

- evidence requirements as set out in the competency standard
- who will collect the evidence
- time period need to collect the evidence

Occupation:	CAD for Textiles					
Unit Name:	Use basic mathematical concepts					
Unit Code:	SEIP-TEX-CAD-01-G					
Assessment Method:	P	O	W			
	Performance <i>(including demonstration and observation)</i>	Oral questioning	Written examination <i>(including short-answer, multiple choice, and true or false questions)</i>			
Element	Performance Criteria			P	O	W
1. Identify calculation requirements in the workplace	1.1. Calculation requirements are identified from workplace information.			✓		
	1.2. Mathematical problems are constructed from workplace information.			✓		
2. Select appropriate mathematical methods/concepts for calculation	2.1. Appropriate method is selected to carry out calculation requirement			✓		✓
	2.2. Constructed mathematical problems are solved with appropriate method.			✓		✓
3. Use tools and instruments to perform calculations	3.1. Tools and instruments required for computation are identified.			✓		
	3.2. Calculation is performed using appropriate tools and instruments accurately.			✓		

Occupation:	CAD for Textiles					
Unit Name:	Apply occupational health and safety (OHS) practices in the workplace					
Unit Code:	SEIP-TEX-CAD-02-G					
Assessment Method:	P	O	W			
	Performance <i>(including demonstration and observation)</i>	Oral questioning	Written examination <i>(including short-answer, multiple choice, and true or false questions)</i>			
Element	Performance Criteria			P	O	W
1. Identify OHS policies and procedures	1.1. OHS policies and safe operating procedures are interpreted.					✓

	1.2. Safety signs and symbols are identified and followed.	√		
	1.3. Response, evacuation procedures and other contingency measures are interpreted correctly.			√
2. Apply personal health and safety practices	2.1. OHS policies and procedures are applied in the workplace including personal protective equipment (PPE).	√		
	2.2. Common health issues are recognised.	√		
	2.3. Common safety issues are identified.	√		
3. Report hazards and risks	3.1. Hazards and risks are identified.	√	√	
	3.2. Hazards and risks assessment and controls are interpreted.	√	√	
4. Respond to emergencies	4.1. Responded to alarms and warning devices.		√	
	4.2. Emergency response plans and procedures are responded to.		√	
	4.3. First aid procedures during emergency situations are identified.		√	

Occupation:	CAD for Textiles					
Unit Name:	Carry out workplace interaction					
Unit Code:	SEIP-TEX-CAD-03-G					
Assessment Method:	P	O	W			
	Performance (including demonstration and observation)	Oral questioning	Written examination (including short-answer, multiple choice, and true or false questions)			
Element	Performance Criteria			P	O	W
1. Interpret workplace communication and etiquette	1.1. Workplace codes of conduct are interpreted as per organisational guidelines.					√
	1.2. Appropriate lines of communication are maintained with supervisors and colleagues.	√				
	1.3. Workplace interactions are conducted in a courteous manner to gather and convey information.	√				
	1.4. Workplace procedures and matters are comprehended.					√
2. Read and understand workplace documents	2.1. Workplace documents are interpreted correctly.	√				
	2.2. Visual information/symbols/signage are understood correctly and followed.	√				
	2.3. Specific and relevant information are accessed from appropriate sources.	√				

	2.4. Appropriate medium is used to transfer information and ideas.	√		
3. Participate in workplace meetings and discussions	3.1. Team meetings are attended on time.		√	
	3.2. Meeting procedures and etiquette are followed.		√	
	3.3. Active participation is ensured, opinions are expressed and heard.	√		
	3.4. Inputs are provided and interpreted in line with the meeting purpose.		√	
4. Practice professional ethics at work	4.1. Responsibilities as a team member are performed.	√		
	4.2. Tasks are performed in accordance with workplace procedures.	√		
	4.3. Confidentiality is maintained.	√		
	4.4. Inappropriate and conflicting situations are avoided.	√		

Occupation:	CAD for Textiles					
Unit Name:	Operate in a team environment					
Unit Code:	SEIP-TEX-CAD-04-G					
Assessment Method:	P	O	W			
	Performance (including demonstration and observation)	Oral questioning	Written examination (including short-answer, multiple choice, and true or false questions)			
Element	Performance Criteria			P	O	W
1. Identify team goals and work processes	1.1. Roles and objectives of the team are identified and interpreted.				√	
	1.2. Roles and responsibilities of team members are identified and interpreted.			√		
2. Identify own role and responsibilities within team	2.1. Personal role and responsibilities are identified within the team environment.				√	
	2.2. Reporting relationships are interpreted within team and external to team.				√	
3. Communicate and co-operate with team members	3.1. Other teammates' tasks are identified and support provided when requested.				√	
	3.2. The team is encouraged through sharing information or expertise, working together to solve problems and putting team success first.	√				
	3.3. Views and opinions of other team members are interpreted and respected.	√				
4. Practice problem solving within the team	4.1. Problems faced at the individual and team level are identified and showed insight into the root-causes of the problems				√	

	4.2. A range of solutions and courses of action are identified together with benefits, costs, and risks associated with each.		√	
	4.3. The good ideas of others to help develop solutions are recognised and advice sought from those who have solved similar problem.		√	
	4.4. It is looked beyond the obvious and not stopped at the first answers.		√	

Occupation:	CAD for Textiles					
Unit Name:	Apply basic IT skills					
Unit Code:	SEIP-TEX-CAD-05-G					
Assessment Method:	P	O	W			
	Performance (including demonstration and observation)	Oral questioning	Written examination (including short-answer, multiple choice, and true or false questions)			
Element	Performance Criteria			P	O	W
1. Identify and use most commonly used IT tools	1.1. History of information technology (IT) is identified and summarised.				√	
	1.2. Commonly used IT tools are identified and described.				√	
2. Understand use of computer	2.1. Basic parts of a computer are identified.				√	
	2.2. Turning on and off technique of a computer is performed.				√	
	2.3. Working environment, functions and features of operating system is interpreted.			√		
	2.4. Simple trouble-shooting techniques are applied.			√		
3. Work with word processing application	3.1. Word processing application appropriate to perform activity is operated.		√			
	3.2. Basic typing technique to document is applied.		√			
	3.3. Word processing techniques to document are employed.		√			
	3.4. Personal CV writing using suitable word processing techniques is practiced.			√		
	3.5. Saving and retrieving technique of a document is used.		√			
4. Work with spreadsheets	4.1. Spreadsheet working environment, functions and features are identified and interpreted.			√		
	4.2. Data entry on spreadsheet appropriate to perform activity is performed.			√		
	4.3. Data manipulation techniques to spreadsheet document are applied.			√		

	4.4. Spreadsheet document is created and saved.		√	
5. Access email and search the internet	5.1. Use of email account in online environment is explained.		√	
	5.2. Writing and sending of workplace emails is completed.		√	
	5.3. Different browsers to work online are identified and selected.		√	
	5.4. Browse different web portals and apply proper search techniques.		√	

Occupation:	CAD for Textiles					
Unit Name:	Explore the history of textile sector					
Unit Code:	SEIP-TEX-CAD-01-S					
Assessment Method:	P	O	W			
	Performance (including demonstration and observation)	Oral questioning	Written examination (including short-answer, multiple choice, and true or false questions)			
Element	Performance Criteria			P	O	W
1. Identify the background of textile sector	1.1. Historical background of textile sector is examined and described.			√		
	1.2. Steps of fabric manufacturing process are clearly identified.			√		
	1.3. Backward and forward linkages are identified.			√		
2. Identify main industries within textile sector	2.1. Main industries of the textile sector are identified.				√	
	2.2. Importance of textile sector and main industries is explored and analysed.			√		
3. Identify materials and machines used in weaving	3.1. Different types of yarn are identified.		√			
	3.2. Different types of fabric are identified.		√			
	3.3. Different types of machines are identified.		√			
4. Identify prime local and export markets	4.1. Prime local markets and export markets are identified interpreted.			√		
	4.2. Local and export markets are listed.			√		

Occupation:	CAD for Textiles				
Unit Name:	Read and interpret sketches and drawings				
Unit Code:	SEIP-TEX-CAD-02-S				
Assessment Method:	P	O	W		

	Performance (including demonstration and observation)	Oral questioning	Written examination (including short-answer, multiple choice, and true or false questions)		
Element	Performance Criteria	P	O	W	
1. Interpret information and specifications	1.1. Appropriate manuals for work activity are identified and collected.	√			
	1.2. Information and specifications in the manuals is interpreted and applied.	√			
2. Read and interpret sketches and drawings	2.1. Relevant sketches and drawings are identified for job requirement.	√			
	2.2. Key terms and abbreviations are identified and interpreted.	√			
	2.3. Signs and symbols are identified and interpreted.	√			
	2.4. Schedules, dimensions, drawings and specifications are correctly read and interpreted.	√			

Occupation:	CAD for Textiles				
Unit Name:	Apply basic knowledge of woven structure				
Unit Code:	SEIP-TEX-CAD-01-O				
Assessment Method:	P	O	W		
	Performance (including demonstration and observation)	Oral questioning	Written examination (including short-answer, multiple choice, and true or false questions)		
Element	Performance Criteria	P	O	W	
1. Identify basic elements of woven structure	1.1. Basic woven structures are identified and interpreted.			√	
	1.2. Fancy woven structures are identified and interpreted.			√	
	1.3. Basic elements of woven structure are identified and described.			√	
	1.4. Relationship among the basic elements is described.			√	
2. Identify systems of drafting	2.1. Systems of drafting are identified and described.		√		
	2.2. Appropriate system is selected.	√			
3. Identify types of shedding	3.1. Types of shedding are identified and described.			√	
	3.2. Appropriate shedding is selected.	√			
4. Interpret technical terms	4.1. Technical terms are identified.		√		
	4.2. Technical terms are defined.			√	

Occupation:	CAD for Textiles					
Unit Name:	Understand fundamentals of CAD operation					
Unit Code:	SEIP-TEX-CAD-02-O					
Assessment Method:	P	O	W			
	Performance (including demonstration and observation)	Oral questioning	Written examination (including short-answer, multiple choice, and true or false questions)			
Element	Performance Criteria			P	O	W
1. Identify requirements of CAD	1.1. CAD is defined.					√
	1.2. Working sequence of CAD system in weaving is identified.				√	
	1.3. Basic CAD software is identified.				√	
	1.4. Application of CAD systems are explained.					√
2. Identify job responsibilities of CAD operator	2.1. Job description of a CAD operator is interpreted.				√	
	2.2. Prime job responsibilities are listed as per weaving industry.				√	
3. Interpret technical terms	3.1. Technical terms are identified.				√	
	3.2. Technical terms are defined.					√

Occupation:	CAD For Textiles					
Unit Name:	Perform CAD installation and operation					
Unit Code:	SEIP-TEX-CAD-03-O					
Assessment Method:	P	O	W			
	Performance (including demonstration and observation)	Oral questioning	Written examination (including short-answer, multiple choice, and true or false questions)			
Element	Performance Criteria			P	O	W
1. Identify hardware and software for CAD	1.1. Fundamentals of computer applications are explained.				√	
	1.2. Configuration of computer is carried out.			√		
	1.3. CAD hardware is identified.			√		
	1.4. CAD software is identified.			√		
2. Install CAD software	2.1. Installation process of CAD software is identified and explained.				√	
	2.2. Steps of installation process are identified in sequence.			√		

	2.3. CAD software is installed.	√		
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Occupation:	CAD for Textiles					
Unit Name:	Operate software for doobby					
Unit Code:	SEIP-TEX-CAD-04-O					
Assessment Method:	P	O	W			
	Performance (including demonstration and observation)	Oral questioning	Written examination (including short-answer, multiple choice, and true or false questions)			
Element	Performance Criteria			P	O	W
1. Develop the weave structure	1.1.	Existing structure is identified and detected.		√		
	1.2.	Canvas/weave size is adjusted.		√		
	1.3.	The weave design is constructed.		√		
	1.4.	Appropriate drafting system is selected.		√		
2. Identify warp and weft parameters	2.1.	Required warp and weft colour is identified and selected.		√		
	2.2.	Warp and weft pattern are adjusted.		√		
	2.3.	Warp and weft parameters are selected.		√		
3. Perform weave design simulation	3.1.	Weave design simulation is carried out.		√		
	3.2.	Adjustment to design is carried out, if needed.		√		

Occupation:	CAD for Textiles					
Unit Name:	Operate software for drape					
Unit Code:	SEIP-TEX-CAD-05-O					
Assessment Method:	P	O	W			
	Performance (including demonstration and observation)	Oral questioning	Written examination (including short-answer, multiple choice, and true or false questions)			
Element	Performance Criteria			P	O	W
1. Create models for weave design	1.1.	Image is scanned.		√		
	1.2.	Scanned image is transferred into the computer.		√		
	1.3.	The image is loaded as a model		√		
	1.4.	Model is opened into drape window.		√		
	2.1.	Model size is adjusted.		√		

2. Perform model texturing	2.2. Model region is created.	√		
	2.3. Texture is loaded into the drape.	√		
	2.4. Texture to the region is applied.	√		
3. Save the project	3.1. Created project is saved.	√		
	3.2. File name is securely recorded.	√		

Occupation:	CAD for Textiles			
Unit Name:	Operate software for painting of jacquard design			
Unit Code:	SEIP-TEX-CAD-06-O			
Assessment Method:	P	O	W	
	Performance <i>(including demonstration and observation)</i>	Oral questioning	Written examination <i>(including short-answer, multiple choice, and true or false questions)</i>	
Element	Performance Criteria	P	O	W
1. Prepare image	1.1. Image is loaded in paint option of software.	√		
	1.2. Image colour is reduced.	√		
	1.3. Number of colours are selected for the image.	√		
	1.4. Image size is adjusted.	√		
	1.5. The image is saved.	√		
2. Convert the image into weave	2.1. Image is loaded into weave.	√		
	2.2. Weave is selected for each colour of the image.	√		
3. Identify warp and weft parameters	3.1. Warp and weft colour is selected.	√		
	3.2. Warp and weft pattern is adjusted.	√		
	3.3. Warp and weft parameters are selected.	√		
4. Perform weave design simulation	4.1. Weave design simulation is carried out.	√		
	4.2. Adjustment to design is carried out, if needed.	√		

PART B – THE CANDIDATE

Instructions to Candidate

To be assessed as competent, you must provide evidence which demonstrates that you can perform to the necessary standard the various elements of this unit of competency that comprise of the Certificate in CAD for Textiles. Assessment of competency requires you to consistently demonstrate skill, knowledge and aptitude (through a variety of assessment tools such as multiple choice, short-answer questions, oral questioning, workplace observation, and practical demonstration) that enables confident completion of workplace tasks in a variety of situations.

In judging the evidence, your assessor must ensure that the evidence is:

- authentic (your own work)
- valid (directly related to the current version of the units of competency)
- reliable (consistently demonstrates of your knowledge and skill)
- current (shows your current capacity to perform the work)
- sufficient (covers the full range of elements comprised within the units of competency)

Furthermore the assessment process must:

- provide for valid, reliable, flexible and fair assessment
- provide for judgment to be made on the basis of sufficient evidence
- offer valid, authentic and current evidence
- include workplace requirements

There are two types of assessment:

1. Knowledge Assessment - is designed to enable assessment against the various *elements* contained within the units of competency through a variety of activities such as multiple choice, short-answer questions, oral questioning. It is essentially examining your theoretical knowledge.

This provides the assessor with substantial evidence of your knowledge and aptitude to perform the work relating to the specific unit of competency, in conjunction with other assessment tools such as workplace observation.

You should complete the knowledge assessment as directed by the assessor and follow all instructions as and when given. If you are unable to complete the knowledge assessment, please speak to the assessor about alternative assessment solutions.

2. Skill Assessment – is designed to enable assessment against the various *performance criteria* contained within the units of competency through, for example, demonstration of skill in a simulated or actual work environment. In essence, it is an examination of your practical ability.

This provides the assessor with substantial evidence of your ability to perform the work relating to the specific unit of competency to the standard expected by industry (the benchmark).

You should complete the skill assessment as directed by the assessor and follow all instructions as and when given, ensuring your own health and safety.

Once you have been assessed as competent against all of the units of competency comprising of the qualification being undertaken, you will be awarded your certificate.

Your assessor will discuss in more detail the requirements for assessment for each unit of competency at the appropriate time.

And please do not panic if you are not assessed as competent on any part of your qualification at your first attempt. Your assessor will discuss with you any identified skill and knowledge gaps, work through those with you and assist you as much as possible in attaining competency.

Self-Assessment Guide

Before undertaking any assessment, you should review the list of skills, knowledge and aptitudes relating to the assessment (drawn from the units of competency, its various elements and performance criteria) to determine whether you have current competency in these areas.

If you believe you can demonstrate the skills and knowledge required and can successfully complete the various assessment activities, you should then proceed to discuss your assessment with the assessor and complete Assessment Agreement.

However, should you not believe, for whatever reason, that you are not able to successfully complete the various assessment activities, then speak with the assessor. The assessor will assist you in identifying any skill and knowledge gaps, work through those with you and assist you as much as possible in attaining competency.

Please complete the self-assessment checklist below and discuss with the assessor.

Qualification:	CAD for Textiles	
Units of competency:	<p>Generic units:</p> <ul style="list-style-type: none"> Use basic mathematical concepts Apply occupational health and safety (OHS) practices in the workplace Carry out workplace interaction Operate in a team environment Apply basic IT skills <p>Sector-specific units:</p> <ul style="list-style-type: none"> Explore the history of Textile Sector Read and interpret sketches and drawings <p>Occupation-specific units:</p> <ul style="list-style-type: none"> Apply basic knowledge of woven design Understand fundamentals of CAD operation Perform CAD installation and operation Operate software for dobby Operate software for drape Operate software for painting of jacquard design 	
Instructions:		
<ul style="list-style-type: none"> ▪ Read each of the questions in the left-hand column of the chart ▪ Place a tick (√) in the appropriate box opposite each question to indicate your answer 		
Can I?	YES	NO
▪ Identify calculation requirements from workplace information		
▪ Construct mathematical problems from workplace information		
▪ Select the appropriate method to carry-out calculation requirements		
▪ Solve constructed mathematical problems with appropriate method		
▪ Identify tools and instruments required for computation		
▪ Perform calculation using appropriate tools and instruments accurately		

▪ Interpret OHS policies and safe operating procedures		
▪ Identify and follow the safety signs and symbols		
▪ Interpret correctly the response, evacuation procedures and other contingency measures		
▪ Apply the OHS policies and procedures in the workplace including personal protective equipment (PPE)		
▪ Recognise the common health issues		
▪ Identify the common safety issues		
▪ Identify hazards and risks		
▪ Interpret hazards and risks assessment and controls		
▪ Identify first aid procedures during emergency situation		
▪ Respond to alarms and warning devices		
▪ Respond to emergency response plans and procedures		
▪ Identify First aid procedures during emergency situations		
▪ Interpret workplace codes of conduct as per organisational guidelines		
▪ Conduct workplace interactions in a courteous manner to gather and convey information		
▪ Comprehend workplace procedures and matters		
• Interpret workplace documents correctly		
▪ Understand and follow visual information/symbols/signage		
• Access specific and relevant information from appropriate sources		
• Use appropriate medium to transfer information and ideas		
• Attend team meetings on time		
▪ Follow meeting procedures and etiquette		
▪ Provide and interpret inputs in line with the meeting purpose		
▪ Perform responsibilities as a team member		
▪ Identify and interpret roles and objectives of the team and team members		
▪ Encourage the team through sharing information or expertise, working together to solve problems, and putting team success first		
▪ Identify problems faced at the individual and team level and show insight into the root-causes of the problems		
▪ Identify and describe commonly used IT tools		
▪ Identify basic parts of a computer		
▪ Apply basic typing technique		
▪ Perform data entry on spread sheet		

▪ Explain using of email account in online environment		
▪ Examine and describe the historical background of textile sector		
▪ Identify steps of fabric manufacturing process		
▪ Identify the backward and forward linkages		
▪ Identify the main industries of textile sector		
▪ Analyse and explore the importance of textile sector and main industries		
▪ Identify different types of yarns		
▪ Identify different types of fabrics		
▪ Identify different types of machine		
▪ Identify the prime local markets and export markets		
▪ List the local and export markets		
▪ Identify and collect appropriate manuals for work activity		
▪ Interpret and apply information and specifications in the manuals		
▪ Identify relevant sketches and drawing for job requirements		
▪ Identify and interpret key terms and abbreviations		
▪ Identify and interpret signs and symbols		
▪ Read and interpret schedules, dimensions, sketches, drawings and specifications		
▪ Identify and interpret basic woven structures		
▪ Identify and interpret fancy woven structures		
▪ Identify and describe basic elements of woven structures		
▪ Describe relationship among the basic elements		
▪ Identify and describe systems of drafting		
▪ Identify and define technical terms		
▪ Define CAD		
▪ Identify working sequence of CAD system in weaving		
▪ Identify basic CAD software		
▪ Explain application of CAD systems		
▪ Identify and interpret job responsibilities of CAD operator		
▪ Identify and define technical terms		
▪ Explain fundamentals of computer applications		
▪ Carry out configuration of computer		
▪ Identify CAD hardware and software		
▪ Identify and explain installation process of CAD software		

• Identify steps of installation process in sequence		
▪ Identify and delete existing structure		
▪ Adjust and construct weave size and design		
▪ Select appropriate drafting system		
▪ Identify and select required warp and weft colour		
▪ Adjust and select warp and weft pattern and parameters		
▪ Carry out weave design simulation		
▪ Scan and transfer image onto computer		
▪ Load and open image into drape window		
▪ Adjust model size		
▪ Create model region.		
▪ Load and apply texture		
▪ Save created model		
• Load image in paint option of software		
▪ Reduce and select number of colours for image		
▪ Adjust and save image size		
▪ Load image into weave		
▪ Select weave for each colour of image		
▪ Select warp and weft colours		
▪ Adjust warp and weft patterns		
▪ Select warp and weft parameters		
▪ Carry out weave design simulation		
▪ Carry out adjustment to design, if needed		
I agree to undertake assessment in the knowledge that the information gathered will only be used for educational and professional development purposes, and can only be accessed by concerned assessment personnel and my manager/supervisor.		
Candidate's signature:		Date:

PART C – THE ASSESSMENT

Assessment Agreement – CAD for Textiles

The purpose of assessment is to confirm that you can perform to the standards expected in the workplace of an occupation, as expressed in the competency standards (after completion of self-assessment and in agreement with assessor).

To help achieve this, an assessment agreement is required to navigate both you and the assessor through the assessment process.

The assessment agreement is designed to provide a clear understanding of what and how you will be assessed and to nominate the tools that may be used to collect the assessment evidence.

You, the assessor and/or workplace supervisor should agree on the assessment requirements, dates and deadlines.

Therefore, to attain the Certificate of CAD for Textiles, you must demonstrate competence in the following units, as established in the assessment agreement:

CODE	UNIT OF COMPETENCY
Generic Competencies	
SEIP-TEX-CAD-01-G	Use basic mathematical concepts
SEIP-TEX-CAD-02-G	Apply occupational health and safety (OHS) practice in the workplace
SEIP-TEX-CAD-03-G	Carry out workplace interaction
SEIP-TEX-CAD-04-G	Operate in a team environment
SEIP-TEX-CAD-05-G	Apply basic IT skills
Sector-specific Competencies	
SEIP-TEX-CAD-01-S	Explore the history of Textile Sector
SEIP-TEX-CAD-02-S	Read and interpret sketches and drawing
Occupation-specific Competencies	
SEIP-TEX-CAD-01-O	Apply basic knowledge of woven design
SEIP-TEX-CAD-02-O	Understand fundamentals of CAD operation
SEIP-TEX-CAD-03-O	Perform CAD installation and operation
SEIP-TEX-CAD-04-O	Operate software for doobby
SEIP-TEX-CAD-05-O	Operate software for drape
SEIP-TEX-CAD-06-O	Operate software for painting of jacquard design

After successful completion of learning and assessment, you shall be awarded with a certificate.

Assessment Agreement	
Occupation:	CAD for Textiles
Assessment Centre:	
Candidate Name:	
Assessor Name:	
Unit of Competency	Element
Generic Competencies	
SEIP-TEX-CAD-01-G	Use basic mathematical concepts
SEIP-TEX-CAD-02-G	Apply occupational health and safety (OHS) practice in the workplace
SEIP-TEX-CAD-03-G	Carry out workplace interaction
SEIP-TEX-CAD-04-G	Operate in a team environment
SEIP-TEX-CAD-05-G	Apply basic IT skills
Sector-specific Competencies	
SEIP-TEX-CAD-01-S	Explore the history of Textile Sector
SEIP-TEX-CAD-02-S	Read and interpret sketches and drawing
Occupation-specific Competencies	
SEIP-TEX-CAD-01-O	Apply basic knowledge of woven design
SEIP-TEX-CAD-02-O	Understand fundamentals of CAD operation
SEIP-TEX-CAD-03-O	Perform CAD installation and operation
SEIP-TEX-CAD-04-O	Operate software for doobby
SEIP-TEX-CAD-05-O	Operate software for drape
SEIP-TEX-CAD-06-O	Operate software for painting of jacquard design
Resources Required for Assessment	
<p>Candidates must have access to the following:</p> <ul style="list-style-type: none"> ▪ copies of activities, questions, projects nominated by the assessor ▪ relevant organisational policies, protocols and procedural documents (if required) ▪ devices or tools to record answers ▪ appropriate actual or simulated workplace ▪ all necessary tools and equipment used in performance of the work-based task ▪ any other resources normally used in the workplace 	
Assessment Instructions	
<p>Candidates should respond to the formative and summative assessments either verbally or in writing as agreed with the assessor. Written responses can be recorded in the spaces provided (if more space is required attach additional pages) or submitted in a word processed document.</p> <p>If candidates answer verbally, the assessor should record their answers in detail.</p> <p>Candidates should also undertake observable tasks that provide evidence of performance. The assessor must provide instruction to candidates on what is expected during observation, and arrange a suitable time and location for demonstration of these skills.</p> <p>Candidates must fully understand what they are required to do to complete these assessment tasks successfully, then sign the declaration.</p>	
Performance Standards	

To receive a **satisfactory** result for the assessments, candidates must complete all activities, questions, projects, and tasks nominated by the assessor, to the required standard.

Completion of all tasks for a unit of competency, to a satisfactory level, will contribute to an assessment of competence for that specific individual unit (or units if holistic assessment approach is taken).

Successful completion of all units of competency that comprise of the qualification CAD for Textiles, will result in the candidate will be issued with the relevant, nationally recognised certificate.

Assessors must clearly explain the required performance standards.

Declaration

I declare that:

- the assessment requirements have been clearly explained to me
- all the work completed towards assessment will be my own
- cheating and plagiarism are unacceptable

Candidate Name:		Date:	
Assessor Name:		Date:	

PART D – ASSESSMENT TOOLS

Specific Instructions to Assessor

Please read carefully and prepare as necessary:

1. The assessor shall (practical demonstration assessment activities):
 - provide the candidate with the necessary tools, equipment, machinery and materials for **completion of the following practical demonstration activities**:
 - Create weave design for doobby loom
 - Create weave design for jacquard loom
 - provide the candidate with the copy of the specific instruction to candidate
 - allow each practical demonstration to be performed within two (2) hours including preparation of the materials
 - ensure that the candidate **FULLY** understands the instructions before proceeding to the performance of the assessment activity
 - allow fifteen (15) minutes for the candidate to familiarise themselves with the resources to be used during the practical demonstrations
 - ensure that the candidate is wearing appropriate personal protective equipment (PPE) before allowing them to proceed with the assessment activity
2. Assessment shall be based on the performance criteria in each of the units of competency. The evidence gathering method shall be comprised of:
 - (a) Written Test (1 hour) – **knowledge evidence**
 - (b) Practical Demonstration (4 hours) – **performance evidence**The practical demonstration activities will be divided into two (2) tasks:
 - (a) **Practical Demonstration 1 (2 hours)**
 - (b) **Practical Demonstration 2 (2 hours)**
3. Final assessment is your responsibility as the accredit/certified assessor.
4. At the conclusion of each assessment activity, you will provide feedback to the candidate of the assessment result. The feedback will indicate whether the candidate is:
 - COMPETENT**
 - NOT YET COMPETENT**
5. The list of tools, equipment, machinery and materials to be provided for completion of the practical demonstration assessment activities can be found at page 36 and 41 respectively.

Specific Instructions to Candidate

You should respond to the assessment either in writing or verbally as agreed with the assessor. Written responses can be recorded in the spaces provided; if more space is required attach additional pages) or submit a word processed document.

If you answer verbally, the assessor should record your answers in detail. Please check your recorded answers carefully and thoroughly to ensure that they are accurate.

You may also be undertaking observable activities (i.e. practical demonstration) that provide evidence of performance. The assessor must provide you with clear instructions on what is expected during this type of assessment, and arrange a suitable time and location for demonstration of these skills.

To receive a satisfactory result for the assessments, you must complete all of the assessment activities; including questions, projects and tasks nominated by the assessor, to the required standard.

This assessment is based upon the units of competency in CAD for Textiles. Using the performance criteria as a benchmark, evidence will be gathered through:

1. Written Test (1 hour) – a variety of multiple-choice, true or false and short answer theory questions to support your competence with regard to the required knowledge (**knowledge evidence**).
2. Practical Demonstration (4 hours) – observable tasks outlined in the elements and performance criteria of the units of competency, completed to support a judgement of satisfactory performance to the required standard (**performance evidence**).

There will be two (2) practical demonstration activities:

- Create weave design for dobby loom
 - Create weave design for jacquard loom
3. The assessor will provide all necessary tools, equipment, machinery and materials required to complete each assessment activity.
 4. These assessments cover all units of competency for CAD for Textiles.
 5. The assessor will provide you with feedback of your performance after completion of each assessment activity. This feedback shall indicate whether you are:

COMPETENT

NOT YET COMPETENT

6. Complete of all assessment activities, to a satisfactory level, will contribute to a final assessment of competence.

Written Test

WRITTEN TEST - INSTRUCTIONS	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in CAD for Textiles
Unit of Competency	Element
Generic Competencies	
SEIP-TEX-CAD-01-G	Use basic mathematical concepts
SEIP-TEX-CAD-02-S	Apply occupational health and safety (OHS) practice in the workplace
SEIP-TEX-CAD-03-G	Carry out workplace interaction
SEIP-TEX-CAD-04-G	Operate in a team environment
SEIP-TEX-CAD-05-G	Apply basic IT skills
Sector-specific Competencies	
SEIP-TEX-CAD-01-S	Explore the history of textile sector
SEIP-TEX-CAD-02-S	Read and interpret sketches and drawings
Occupation-specific Competencies	
SEIP-TEX-CAD-01-O	Apply basic knowledge of woven design
SEIP-TEX-CAD-02-O	Understand fundamentals of CAD operation
SEIP-TEX-CAD-03-O	Perform CAD installation and operation
SEIP-TEX-CAD-04-O	Operate software for doobby
SEIP-TEX-CAD-05-O	Operate software for drape
SEIP-TEX-CAD-06-O	Operate software for painting of jacquard design
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	
Instructions:	
<p>Read and understand the directions carefully:</p> <ul style="list-style-type: none"> ▪ this written examination is based on the performance criteria from all the units of competency in Ring Frame Basics and Techniques ▪ this assessment activity will be used to measure your underpinning knowledge ▪ write your answers on the paper provided ▪ answer all the questions as best as possible ▪ you have 1 (one) hour to complete this test 	

WRITTEN TEST**Multiple Choice**

This is a **multiple-choice** of test. Choose the appropriate answer and circle the letter that corresponds with your answer.

1.	What percentage of 250 is 50?	a. 10% b. 20% c. 25% d. 50%
2.	Which is not a basic element of woven structure?	a. Weave plan b. Drafting plan c. Lifting plan d. Lay out plan
3.	What are the advantages of a self-directed team?	a. Improved quality, productivity and service b. Greater flexibility c. Prohibition signs d. Faster response to technological change e. All of the above
4.	How many basic weaves are used for woven structures?	a. 3 b. 4 c. 5 d. 6
5.	What is repeat size?	a. Number of warp and weft in a repeat b. Number of warp and weft in one inch c. Number of heald frames d. Number of weaves
6.	Which drafting system is used for twill weave?	a. Skip draft b. Straight draft c. Pointed draft d. Broken draft
7.	Which is not a part of the hardware of a computer?	a. Monitor b. CPU c. Mouse d. Windows
8.	What are the advantages of CAD systems?	a. Make design changes quick

		b. Adjust colour on a textile pattern c. Flexibility of changing design d. All of the above
9.	What software is used in CAD system?	a. Arah Weave b. Textronics c. Muller MCAD d. All of the above
10.	Which is the function of the CAD system?	a. Discuss weave structure b. Develop the weave structure c. Discuss crimp percentage of warp and weft yarn d. All of the above
True or False Quiz		
Tick (√) the box corresponding to the correct answer.		
11.	The phrase “all right” indicates a positive response.	True <input type="checkbox"/> False <input type="checkbox"/>
12.	18 x 20 repeat honeycomb design can be produced in doobby.	True <input type="checkbox"/> False <input type="checkbox"/>
13.	Yarn parameters and density cannot be set in CAD system.	True <input type="checkbox"/> False <input type="checkbox"/>
Fill In the Missing Blanks		
Write the word or group of words needed to complete the following sentences.		
14.	_____ software in CAD system is used for doobby and jacquard design.	
15.	The minimum repeat size of twill weave is _____.	
Short Answer		
Write a short answer in the space provided (not to exceed more than approximately twenty-five (25) words).		
16.	What does CAD stand for?	
17.	What is meant by drafting plan?	

18.	What are the systems of drafting?	
19.	What is the design capacity of tappet loom?	
20.	Briefly state the installation process of CAD software.	
Feedback to candidate:		
Assessment decision for this assessment activity:		
<input type="checkbox"/> Competent <input type="checkbox"/> Not Yet Competent		
Candidate Signature:		Date:
Assessor Signature:		Date:

Written Test - Answers

Answers are highlighted in **bold** and *italics*.

Multiple Choice		
1.	What percentage of 250 is 50?	a. 10% b. 20% c. 25% d. 50%
2.	Which is not a basic element of woven structure?	a. Weave plan b. Drafting plan c. Lifting plan d. Lay out plan
3.	What are the advantages of a self-directed team?	a. Improved quality, productivity and service b. Greater flexibility c. Prohibition signs d. Faster response to technological change e. All of the above
4.	How many basic weaves are used for woven structures?	a. 3 b. 4 c. 5 d. 6
5.	What is repeat size?	a. Number of warp and weft in a repeat b. Number of warp and weft in one inch c. Number of heald frames d. Number of weaves
6.	Which drafting system is used for twill weave?	a. Skip draft b. Straight draft c. Pointed draft d. Broken draft
7.	Which is not a part of the hardware of a computer?	a. Monitor b. CPU c. Mouse d. Windows
8.	What are the advantages of CAD systems?	a. Make design changes quick b. Adjust colour on a textile pattern

		c. Flexibility of changing design d. All of the above
9.	What software is used in CAD system?	a. Arah Weave b. Textronics c. Muller MCAD d. All of the above
10.	Which is the function of the CAD system?	a. Discuss weave structure b. Develop the weave structure c. Discuss crimp percentage of warp and weft yarn d. All of the above
True or False Quiz		
11.	The phrase "all right" indicates a positive response?	True <input checked="" type="checkbox"/> False <input type="checkbox"/>
12.	18 x 20 repeat honeycomb design can be produced in doobby.	True <input checked="" type="checkbox"/> False <input type="checkbox"/>
13.	Yarn parameters and density cannot be set in CAD System.	True <input type="checkbox"/> False <input checked="" type="checkbox"/>
Fill In the Missing Blanks		
14.	Textronics software in CAD system is used for doobby and jacquard design.	
15.	The minimum repeat size of twill weave is 3 x 3 .	
Short Answer		
16.	What does CAD stand for?	Computer Aided Design
17.	What is meant by drafting plan?	The process of drawing the warp yarn through the eyes of heald frames according to design. It also denotes the number of heald shaft required for a given weave repeat.
18.	What are the systems of drafting?	<ul style="list-style-type: none"> ▪ Skip ▪ Straight ▪ Pointed ▪ Broken ▪ Curved ▪ Grouped ▪ Divided ▪ Combined
19.	What is the design capacity of tappet loom?	12 x 12
20.	Briefly state the installation process of CAD software.	<ol style="list-style-type: none"> 1. Inserting CD 2. Running the system

		3. Using activation code 4. Completing installation process 5. Launching software
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Practical Demonstration 1

PRACTICAL DEMONSTRATION 1	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in CAD for Textiles
Task:	Create weave design for dobby loom <i>(different task can be given for different design such as diamond, diaper or any fancy design)</i>
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	
Instructions:	
Read and understand the directions carefully:	
<ul style="list-style-type: none"> ▪ this practical demonstration is based on the performance criteria from all or some of the units of competency in CAD for Textiles ▪ this assessment activity will be used to measure your underpinning skills ▪ you will have fifteen (15) minutes to familiarise yourself with the resources to be used ▪ you have two (2) hours to complete this demonstration 	
Procedure:	
<ul style="list-style-type: none"> ▪ observe and wear personal protective equipment (PPE) as required for the task to be performed ▪ read the specification information provided ▪ collect all materials needed to complete the task ▪ perform the task within the given time ▪ observe and follow all health and safety (OHS) requirements at all times 	
Job Specification Information:	
<ol style="list-style-type: none"> 1. Identify, read and interpret job specifications, drawings and other workplace documents. 2. Collect required tools, equipment, machinery and materials required for the task. 3. Inspect worksite for hazards and implement appropriate controls (if necessary). 4. Identify and collect appropriate PPE. 5. Calculate quantity of materials required as per job specification. 6. Identify and select materials (yarn and/or fabric). 7. Inspect and check materials as per job specification. 8. Configure computer (if required). 9. Identify and select hardware. 10. Identify and select CAD software. 11. Install selected CAD software. 12. Identify and detect existing structure. 13. Adjust canvas or weave size. 14. Construct weave design. 15. Identify and select appropriate drafting system. 16. Identify and select appropriate shedding. 17. Select required warp and weft colour. 	

18. Adjust warp and weft pattern.
19. Select warp and weft parameters.
20. Simulate weave design.
21. Adjust weave design (if necessary).
22. Scan image and transfer onto computer.
23. Load the image as a model.
24. Adjust model size.
25. Create model region.
26. Load texture into the drape.
27. Apply texture to the region.
28. Save created model and record file name.

Resources Required:

Tools:	CAD software
Equipment:	Computer Scanner Printer
Machinery:	N/A
Materials:	Yarn Fabric
PPE:	N/A

Practical Demonstration 1 – Observation Checklist

PRACTICAL DEMONSTRATION 1 – OBSERVATION CHECKLIST		
Candidate Name:		
Assessor Name:		
Qualification:	Certificate in CAD for Textiles	
Task:	Create weave design for dobby loom <i>(different task can be given for different design such as diamond, diaper or any fancy design)</i>	
Assessment Centre:		
Date of Assessment:		
Instructions:	<p>The tasks listed on the observation checklist of the practical demonstration will provide performance evidence of the candidate.</p> <p>Performance can be observed in an actual workplace or in a simulated working environment.</p> <p>If performance of particular tasks cannot be observed, you may ask the candidate to explain a procedure or enter into a discussion on the subject.</p> <p>The assessment activity (practical demonstration) should:</p> <ul style="list-style-type: none"> ▪ fit industry requirements in which the assessment will be conducted ▪ adhere, where possible, to reasonable adjustment practices ▪ ensure that suitable performance benchmarks are applied and explained to the candidate 	
OBSERVATION RECORD		
Performance Criteria	Place a ✓ to show if evidence has been demonstrated competently	
	Yes	No
<i>Workplace documents are interpreted correctly.</i>	<input type="checkbox"/>	<input type="checkbox"/>
Accessed specific and relevant information from appropriate sources.	<input type="checkbox"/>	<input type="checkbox"/>
<i>OHS policies and procedures are applied in the workplace including personal protective equipment (PPE).</i>	<input type="checkbox"/>	<input type="checkbox"/>
Identified and followed safety signs and symbols.	<input type="checkbox"/>	<input type="checkbox"/>
<i>Common safety issues are identified.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Hazards and risks are identified.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Hazards and risks assessment and controls are identified and implemented.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Job specifications are read and understood.</i>	<input type="checkbox"/>	<input type="checkbox"/>
Basic woven structures are identified.	<input type="checkbox"/>	<input type="checkbox"/>
<i>Yarns and fabrics required for task are identified.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Appropriate machine is identified and selected.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Calculations are performed using correct method and tool.</i>	<input type="checkbox"/>	<input type="checkbox"/>

Appropriate drafting system is selected.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate shedding is selected.	<input type="checkbox"/>	<input type="checkbox"/>
Computer is configured as per requirements.	<input type="checkbox"/>	<input type="checkbox"/>
CAD hardware is identified.	<input type="checkbox"/>	<input type="checkbox"/>
CAD software is identified.	<input type="checkbox"/>	<input type="checkbox"/>
Steps of installation process are identified in sequence.	<input type="checkbox"/>	<input type="checkbox"/>
CAD software is installed.	<input type="checkbox"/>	<input type="checkbox"/>
Existing structure is identified and detected.	<input type="checkbox"/>	<input type="checkbox"/>
Canvas/weave size is adjusted.	<input type="checkbox"/>	<input type="checkbox"/>
Weave design is constructed.	<input type="checkbox"/>	<input type="checkbox"/>
Required warp and weft colour is identified selected.	<input type="checkbox"/>	<input type="checkbox"/>
Warp and weft pattern are adjusted.	<input type="checkbox"/>	<input type="checkbox"/>
Warp and weft parameters are selected.	<input type="checkbox"/>	<input type="checkbox"/>
Weave design simulation is carried out.	<input type="checkbox"/>	<input type="checkbox"/>
Adjustment to design is carried out, if needed.	<input type="checkbox"/>	<input type="checkbox"/>
Image is scanned.	<input type="checkbox"/>	<input type="checkbox"/>
Scanned image is transferred onto computer.	<input type="checkbox"/>	<input type="checkbox"/>
Image is loaded as a model.	<input type="checkbox"/>	<input type="checkbox"/>
Model is opened into drape window.	<input type="checkbox"/>	<input type="checkbox"/>
Model size is adjusted.	<input type="checkbox"/>	<input type="checkbox"/>
Model region is created.	<input type="checkbox"/>	<input type="checkbox"/>
Texture is loaded into the drape.	<input type="checkbox"/>	<input type="checkbox"/>
Texture to the region is applied.	<input type="checkbox"/>	<input type="checkbox"/>
Word processing application is operated.	<input type="checkbox"/>	<input type="checkbox"/>
Basic typing technique is applied.	<input type="checkbox"/>	<input type="checkbox"/>
Created model is saved.	<input type="checkbox"/>	<input type="checkbox"/>
File name is securely recorded.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate lines of communication are maintained with supervisors and colleagues.	<input type="checkbox"/>	<input type="checkbox"/>
Workplace interactions are conducted in courteous manner to gather and convey information.	<input type="checkbox"/>	<input type="checkbox"/>
Used appropriate medium to transfer information and ideas.	<input type="checkbox"/>	<input type="checkbox"/>
Responsibilities as a team member are performed.	<input type="checkbox"/>	<input type="checkbox"/>
Tasks are performed in accordance with workplace procedures.	<input type="checkbox"/>	<input type="checkbox"/>
Other teammates' tasks are identified and provided support.	<input type="checkbox"/>	<input type="checkbox"/>

The team is encouraged through sharing information or expertise, working together to solve problems, and putting team success first.	<input type="checkbox"/>	<input type="checkbox"/>
Feedback to candidate:		
Assessment decision for this assessment activity: <input type="checkbox"/> Competent <input type="checkbox"/> Not Yet Competent		
Candidate Signature:		Date:
Assessor Signature:		Date:

Practical Demonstration 2

PRACTICAL DEMONSTRATION 2	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in CAD for Textiles
Task:	Create design for jacquard loom <i>(different design can be given for different repeat size as 100 x 100, 140 x 100 etc.)</i>
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	
Instructions:	
<p>Read and understand the directions carefully:</p> <ul style="list-style-type: none"> ▪ this practical demonstration is based on the performance criteria from all or some of the units of competency in CAD for Textiles ▪ this assessment activity will be used to measure your underpinning skills ▪ you will have fifteen (15) minutes to familiarise yourself with the resources to be used ▪ you have two (2) hours to complete this demonstration 	
Procedure:	
<ul style="list-style-type: none"> ▪ observe and wear personal protective equipment (PPE) as required for the task to be performed ▪ read the specification information provided ▪ collect all materials needed to complete the task ▪ perform the task within the given time ▪ observe and follow all health and safety (OHS) requirements at all times 	
Job Specification Information:	
<ol style="list-style-type: none"> 1. Identify, read and interpret job specifications, drawings and other workplace documents. 2. Collect required tools, equipment, machinery and materials required for the task. 3. Inspect worksite for hazards and implement appropriate controls (if necessary). 4. Identify and collect appropriate PPE (if required). 5. Load image into paint option. 6. Reduce image colour. 7. Select number of colours for image. 8. Adjust image size. 9. Save the image. 10. Load image into weave. 11. Select weave for each colour of image. 12. Select warp and weft colour. 13. Adjust warp and weft pattern. 14. Select parameters of warp and weft. 15. Simulate weave design. 16. Adjust weave design (if necessary). 17. Save created weave design and record file name. 	

Resources Required:	
Tools	CAD software
Equipment	Computer Scanner Printer
Machinery	N/A
Materials:	Fabric
PPE:	N/A



Practical Demonstration 2 – Observation Checklist

PRACTICAL DEMONSTRATION 2 – OBSERVATION CHECKLIST		
Candidate Name:		
Assessor Name:		
Qualification:	Certificate in CAD for Textiles	
Task:	Create design for jacquard loom <i>(different design can be given for different repeat size as 100 x 100, 140 x 100 etc.)</i>	
Assessment Centre:		
Date of Assessment:		
Instructions:	<p>The tasks listed on the observation checklist of the practical demonstration will provide performance evidence of the candidate.</p> <p>Performance can be observed in an actual workplace or in a simulated working environment.</p> <p>If performance of particular tasks cannot be observed, you may ask the candidate to explain a procedure or enter into a discussion on the subject.</p> <p>The assessment activity (practical demonstration) should:</p> <ul style="list-style-type: none"> ▪ fit industry requirements in which the assessment will be conducted ▪ adhere, where possible, to reasonable adjustment practices ▪ ensure that suitable performance benchmarks are applied and explained to the candidate 	
OBSERVATION RECORD		
Performance Criteria	Place a ✓ to show if evidence has been demonstrated competently	
	Yes	No
<i>Workplace documents are interpreted correctly.</i>	<input type="checkbox"/>	<input type="checkbox"/>
Accessed specific and relevant information form appropriate sources.	<input type="checkbox"/>	<input type="checkbox"/>
<i>OHS policies and procedures are applied in the workplace including personal protective equipment (PPE).</i>	<input type="checkbox"/>	<input type="checkbox"/>
Identified and followed safety signs and symbols.	<input type="checkbox"/>	<input type="checkbox"/>
<i>Common safety issues are identified.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Hazards and risks are identified.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Hazards and risks assessment and controls are identified and implemented.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Job specifications are read and understood.</i>	<input type="checkbox"/>	<input type="checkbox"/>
Image is loaded in paint option.	<input type="checkbox"/>	<input type="checkbox"/>
Image colour is reduced.	<input type="checkbox"/>	<input type="checkbox"/>
Number of colours are selected for image.	<input type="checkbox"/>	<input type="checkbox"/>

Image size is adjusted.	<input type="checkbox"/>	<input type="checkbox"/>
Image is saved.	<input type="checkbox"/>	<input type="checkbox"/>
Image is loaded into weave.	<input type="checkbox"/>	<input type="checkbox"/>
Weave is selected for each colour of image.	<input type="checkbox"/>	<input type="checkbox"/>
Warp and weft colour are selected.	<input type="checkbox"/>	<input type="checkbox"/>
Warp and weft pattern are adjusted.	<input type="checkbox"/>	<input type="checkbox"/>
Warp and weft parameters are selected.	<input type="checkbox"/>	<input type="checkbox"/>
Weave design simulation is carried out.	<input type="checkbox"/>	<input type="checkbox"/>
Adjustment to design is carried out, if necessary.	<input type="checkbox"/>	<input type="checkbox"/>
Word processing application is operated.	<input type="checkbox"/>	<input type="checkbox"/>
Basic typing technique is applied.	<input type="checkbox"/>	<input type="checkbox"/>
Created weave design is saved.	<input type="checkbox"/>	<input type="checkbox"/>
File name is securely recorded.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate lines of communication are maintained with supervisors and colleagues.	<input type="checkbox"/>	<input type="checkbox"/>
Workplace interactions are conducted in courteous manner to gather and convey information.	<input type="checkbox"/>	<input type="checkbox"/>
Used appropriate medium to transfer information and ideas.	<input type="checkbox"/>	<input type="checkbox"/>
Responsibilities as a team member are performed.	<input type="checkbox"/>	<input type="checkbox"/>
Tasks are performed in accordance with workplace procedures.	<input type="checkbox"/>	<input type="checkbox"/>
Other teammates' tasks are identified and provided support.	<input type="checkbox"/>	<input type="checkbox"/>
The team is encouraged through sharing information or expertise, working together to solve problems, and putting team success first.	<input type="checkbox"/>	<input type="checkbox"/>
Feedback to candidate:		
Assessment decision for this assessment activity:		
<input type="checkbox"/> Competent <input type="checkbox"/> Not Yet Competent		
Candidate Signature:		Date:
Assessor Signature:		Date:

Oral Questions (Optional)

ORAL QUESTIONS - INSTRUCTIONS	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in CAD for Textiles
Unit of Competency	
Generic Competencies	
SEIP-TEX-CAD-01-G	Use basic mathematical concepts
SEIP-TEX-CAD-02-G	Apply occupational health and safety (OHS) practice in the workplace
SEIP-TEX-CAD-03-G	Carry out workplace interaction
SEIP-TEX-CAD-04-G	Operate in a team environment
SEIP-TEX-CAD-05-G	Apply basic IT skills
Sector-specific Competencies	
SEIP-TEX-CAD-01-S	Explore the history of textile sector
SEIP-TEX-CAD-02-S	Read and interpret sketches and drawings
Occupation-specific Competencies	
SEIP-TEX-CAD-01-O	Apply basic knowledge of woven structure
SEIP-TEX-CAD-02-O	Understand fundamentals of CAD operation
SEIP-TEX-CAD-03-O	Perform CAD installation and operation
SEIP-TEX-CAD-04-O	Operate software for doobby
SEIP-TEX-CAD-05-O	Operate software for drape
SEIP-TEX-CAD-06-O	Operate software for painting of jacquard design
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	
Instructions:	
<p>Read and understand the directions carefully:</p> <ul style="list-style-type: none"> ▪ these oral questions are based on the performance criteria from all the units of competency in CAD for Textiles ▪ oral questions are designed to enable additional assessment of your underpinning knowledge ▪ you should present your responses as directed by the assessor ▪ answer all the questions asked by the assessor as best as possible 	

ORAL QUESTIONS			
Question		Place a ✓ in the appropriate box to show if evidence has been demonstrated competently	
		Yes	No
1.	What will you do when there is too much noise in the workplace?	<input type="checkbox"/>	<input type="checkbox"/>
2.	What does this sign mean? 	<input type="checkbox"/>	<input type="checkbox"/>
3.	What does this sign mean? 	<input type="checkbox"/>	<input type="checkbox"/>
4.	What are the basic woven structures?	<input type="checkbox"/>	<input type="checkbox"/>
5.	What are the types of shedding?	<input type="checkbox"/>	<input type="checkbox"/>
6.	What is repeat size?	<input type="checkbox"/>	<input type="checkbox"/>
7.	Name two CAD software.	<input type="checkbox"/>	<input type="checkbox"/>
8.	What are the functions of a CAD system?	<input type="checkbox"/>	<input type="checkbox"/>
9.	What are warp and weft parameters?	<input type="checkbox"/>	<input type="checkbox"/>
10.	What are the components of canvas/weave size?	<input type="checkbox"/>	<input type="checkbox"/>
11.	What is an image?	<input type="checkbox"/>	<input type="checkbox"/>
12.	What are the requirements of a model size?	<input type="checkbox"/>	<input type="checkbox"/>
13.	Which parameters are needed for image size?	<input type="checkbox"/>	<input type="checkbox"/>
14.	What is TPI?	<input type="checkbox"/>	<input type="checkbox"/>
15.	What are the components of CAD hardware?	<input type="checkbox"/>	<input type="checkbox"/>
16.	Name any four fancy weaves.	<input type="checkbox"/>	<input type="checkbox"/>
17.	What is formula number?	<input type="checkbox"/>	<input type="checkbox"/>
18.	Which draft is used for satin weave?	<input type="checkbox"/>	<input type="checkbox"/>
19.	What is thread density?	<input type="checkbox"/>	<input type="checkbox"/>
20.	What is warp and weft pattern?	<input type="checkbox"/>	<input type="checkbox"/>
21.	What are the major divisions of textile industry?	<input type="checkbox"/>	<input type="checkbox"/>
22.	Name the primary local and export markets.	<input type="checkbox"/>	<input type="checkbox"/>
23.	Briefly outline the background of the textile sector.	<input type="checkbox"/>	<input type="checkbox"/>
Feedback to candidate:			

Assessment decision for this assessment activity:

Competent

Not Yet Competent

Candidate Signature:

Date:

Assessor Signature:



Date:

Oral Questioning Guideline

General Guidelines For Effective Questioning	
▪	Keep questions short and focused on one key concept
▪	Ensure that questions are structured
▪	Test the questions to check that they are not ambiguous
▪	Use `open-ended questions such as `what if...?' and `why...?' questions, rather than closed questions
▪	Keep questions clear and straight forward and ask one at a time
▪	Use words that the candidate is able to understand
▪	Look at the candidate when asking questions
▪	Check to ensure that the candidate fully understands the questions
▪	Ask the candidate to clarify or re-phrase their answer if the assessor does not understand the initial response
▪	Confirm the candidate's response by repeating the answer back in his/her own words
▪	Encourage a conversational approach with the candidate when appropriate, to put him or her at ease
▪	Use questions or statements as prompts for keeping focused on the purpose of the questions and the kind of evidence being collected
▪	Use language at a suitable level for the candidate
▪	Listen carefully to the answers for opportunities to find unexpected evidence
▪	Follow up responses with further questions, if useful, to draw out more evidence or to make links between knowledge areas
▪	Compile a list of acceptable responses to ensure reliability of assessments

Oral Questions (Optional) - Answers

Answers are highlighted in **bold** and *italics*.

ORAL QUESTIONS		
Question		Answer
1.	What will you do when there is too much noise in the workplace?	<i>Use appropriate personal protective equipment (PPE) in the workplace such as ear plugs.</i>
2.	What does this sign mean? 	<i>High voltage electricity hazard</i>
3.	What does this sign mean? 	<i>Emergency exit</i>
4.	What are the basic woven structures?	<ul style="list-style-type: none"> ▪ <i>Plain</i> ▪ <i>Twill</i> ▪ <i>Satin</i>
5.	What are the types of shedding?	<ul style="list-style-type: none"> • <i>Tappet</i> • <i>Dobby</i> • <i>Jacquard</i>
6.	What is repeat size?	<i>Number of warp and number of weft in a repeat.</i>
7.	Name two CAD software.	<p><i>May include but are not limited to the following answers:</i></p> <ul style="list-style-type: none"> ▪ <i>Arah weave</i> ▪ <i>Textronics</i>
8.	What are the functions of a CAD system?	<p><i>May include but are not limited to the following answers:</i></p> <ul style="list-style-type: none"> • <i>Developing the structure</i> • <i>Setting the colour</i> • <i>Setting yarn parameters and density</i> • <i>Simulation</i>
9.	What are warp and weft parameters?	<ul style="list-style-type: none"> • <i>Yarn count</i> • <i>Twist per inch</i> • <i>Twist direction</i> • <i>Thread density</i>
10.	What are the components of canvas/weave size?	<ul style="list-style-type: none"> ▪ <i>Repeat size</i> ▪ <i>Grid size</i> ▪ <i>Thicken</i> ▪ <i>System</i>
11.	What is an image?	<ul style="list-style-type: none"> • <i>Drawing</i> • <i>Picture</i> • <i>Photograph</i>
12.	What are the requirements of a model size?	<ul style="list-style-type: none"> • <i>Measurement unit</i> • <i>Length</i>

13.	Which parameters are needed for image size?	<ul style="list-style-type: none"> • Height • Width
14.	What is TPI?	TPI means twist per inch (i.e. number of twists per inch).
15.	What are the components of CAD hardware?	<ul style="list-style-type: none"> • System unit • CPU • Hard disk • Monitor
16.	Name any four fancy weaves.	<ul style="list-style-type: none"> • Mock leno • Hucka back • Honey comb • Bedford cord
17.	What is formula number?	It is the numerical fraction which is used for the interlacement of warp and weft yarns.
18.	Which draft is used for satin weave?	Straight draft
19.	What is thread density?	Number of warp and number of weft in a square inch.
20.	What is warp and weft pattern?	Number of colour warp and weft yarn used for a repeat size.
21.	What are the major divisions of textile industry?	Spinning, weaving, knitting, dyeing, printing and finishing.
22.	Name the primary local and export markets.	Europe, Australia, Asia, United States.
23.	Briefly outline the background of the textile sector.	The answer should be a short 2 minute overview of the sector and its major departments.

Assessment Evidence Summary Sheet

EVIDENCE SUMMARY SHEET			
Candidate Name:			
Assessor Name:			
Qualification:	Certificate in CAD for Textiles		
Assessment Centre:			
Date(s) of Assessment:			
The performance of the candidate in the following unit or units of competency and the methods engaged to assess performance are as follows:			
Unit of Competency	Assessment Method	Competent	Not Yet Competent
All units of competency comprising of the qualification	Written Test	<input type="checkbox"/>	<input type="checkbox"/>
	Practical Demonstration 1	<input type="checkbox"/>	<input type="checkbox"/>
	Practical Demonstration 2	<input type="checkbox"/>	<input type="checkbox"/>
	Oral Questioning (optional)	<input type="checkbox"/>	<input type="checkbox"/>
Note: Issuance of a certificate will only be given to a candidate who has successfully been assessed as competent for ALL units of competency.			
Recommendation			
<input type="checkbox"/> Issuance of Certificate of Competency (<i>indicate title of COC, if full Certificate is not met</i>)	<input type="checkbox"/> Submission of additional documents Specify:	<input type="checkbox"/> Reassessment Specify:	
Did the candidate overall performance meet the required evidences/standards?			<input type="checkbox"/> Yes <input type="checkbox"/> No
Overall Evaluation:	<input type="checkbox"/> Competent <input type="checkbox"/> Not Yet Competent		
General Comments:			
Candidate Signature:		Date:	
Assessor Signature:		Date:	
Institution Manager Signature:		Date:	

CANDIDATES COPY
(Please presents this form when you claim your Certificate)

ASSESSMENT RESULTS SUMMARY			
Qualification:	Certificate in CAD for Textiles		
Name of Candidate:		Date:	
Name at Assessment Centre:		Date:	
Assessment Results:	<input type="checkbox"/> Competent <input type="checkbox"/> Not Yet Competent		
Recommendation:	<input type="checkbox"/> Issuance of COC (<i>indicate title of COC, if full certificate is not met</i>)		
	<input type="checkbox"/> Submission of additional documents – specify:		
	<input type="checkbox"/> Reassessment - specify:		
Assessed by: (name and signature)		Date:	
Attested by: (name and signature):		Date	

Assessment and Validation Map

This identifies how the assessment tools in this resource may assess:

- elements and performance criteria
- critical aspects of assessment
- skills and knowledge
- employability skills

Unit of Competency:	SEIP-TEX-CAD-01-G – Use basic mathematical concepts		
Element	Assessment Evidence Method		
	Written	Practical	Oral
1. Identify calculation requirements in the workplace.		1	
2. Select appropriate mathematical methods/concepts for calculation.		1	
3. Use tools and instruments to perform calculations..	1	1	
Unit of Competency:	SEIP-TEX-CAD-02-G - Apply occupational health and safety (OHS) practices in the workplace		
Element	Assessment Method		
	Written	Practical	Oral
1. Identify OHS policies and procedures.		1, 2	
2. Apply personal health and safety practices.		1, 2	2, 3
3. Report hazards and risks.		1, 2	1
4. Respond to emergencies.			1
Unit of Competency:	SEIP-TEX-CAD-03-G – Carry out workplace interaction		
Element	Assessment Method		
	Written	Practical	Oral
1. Interpret workplace communication and etiquette.		1, 2	
2. Read and understand workplace documents.		1, 2	
3. Participate in workplace meetings and discussions.		1, 2	
4. Practice professional ethics at work.		1, 2	
Unit of Competency:	SEIP-TEX-CAD-04-G – Operate in a team environment		
Element	Assessment Method		
	Written	Practical	Oral
1. Identify team goals and work processes.	3		

2. Identify own role and responsibilities within team.			
3. Communicate and co-operate with team members.	3	1, 2	
4. Practice problem solving within the team.		1, 2	
Unit of Competency:	SEIP-TEX-CAD-05-G – Apply basic IT skills		
Element	Assessment Method		
	Written	Practical	Oral
1. Identify and use most commonly used IT tools.		1, 2	
2. Understand use of computer.	7	1, 2	
3. Work with word processing application.		1, 2	
4. Work with spreadsheets.	7		
5. Access email and search the internet.		1	
Unit of Competency:	SEIP-TEX-CAD-01-S - Explore the history of textile sector		
Element	Assessment Method		
	Written	Practical	Oral
1. Identify the background of textile sector.			23
2. Identify main industries within textile sector.			21
3. Identify materials and machines used in weaving.		1, 2	
4. Identify prime local and export markets.			22
Unit of Competency:	SEIP-TEX-CAD-02-S - Read and interpret sketches and drawings		
Element	Assessment Method		
	Written	Practical	Oral
1. Interpret information and specifications.		1, 2	
2. Read and interpret sketches and drawings.		1, 2	
Unit of Competency:	SEIP-TEX-CAD-01-O - Apply basic knowledge of woven structure		
Element	Assessment Method		
	Written	Practical	Oral
1. Identify basic elements of woven structure.	2, 4	1, 2	4, 16
2. Identify systems of drafting.	17, 18	1	18
3. Identify types of shedding.		1	5
4. Interpret technical terms.	5, 11		6, 17, 19

Unit of Competency:	SEIP-TEX-CAD-02-O - Understand fundamentals of CAD operation		
Element	Assessment Method		
	Written	Practical	Oral
1. Identify requirements of CAD.	8		8
2. Identify job responsibilities of CAD operator.	16		
3. Interpret technical terms.	15		
Unit of Competency:	SEIP-TEX-CAD-03-O - Perform CAD installation and operation		
Element	Assessment Method		
	Written	Practical	Oral
1. Identify hardware and software for CAD.	9, 10, 14	1	7, 15
2. Install CAD software.	20	1	
Unit of Competency:	SEIP-TEX-CAD-04-O - Operate software for dobby		
Element	Assessment Method		
	Written	Practical	Oral
1. Develop the weave structure.	6	1	10
2. Identify warp and weft parameters.	13	1	9, 14, 20
3. Perform weave design simulation.	12	1	
Unit of Competency:	SEIP-TEX-CAD-05-O - Operate software for drape		
Element	Assessment Method		
	Written	Practical	Oral
1. Create models for weave design.		1, 2	11
2. Perform model texturing.		1	12
3. Save the project.		1, 2	
Unit of Competency:	SEIP-TEX-CAD-06-O - Operate software for painting of jacquard design		
Element	Assessment Method		
	Written	Practical	Oral
1. Prepare image.	19	2	13
2. Convert the image into weave.		2	
3. Identify warp and weft parameters.	13	2	9, 14, 20
4. Perform weave design simulation.		2	

