Skills for Employment Investment Program (SEIP)

ASSESSMENT TOOL

FOR

PATTERN MAKING, GRADING AND CAD-CAM OPERATION

(LEATHER AND FOOTWEAR 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, anyexplanation 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:		
Provided feedback on the assessment decision. This includes the following: ▪ 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)		
Prepared the necessary assessment reports. This includes the following: ▪ 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 **Pattern Making, Grading and CAD-CAM Operation** 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-LEA-PAT-01-G	Operate in a team environment
Sector-specific Competencies	
SEIP-LEA-PAT-01-S	Apply occupational health and safety (OHS) practice in the workplace
Occupation-specific Competencies	
SEIP-LEA-PAT-01-O	Understand pattern making and CAD-CAM operations
SEIP-LEA-PAT-02-O	Carry out manual pattern making operations
SEIP-LEA-PAT-03-O	Prepare a standard/shell using 3D software
SEIP-LEA-PAT-04-O	Perform computer aided pattern making operations
SEIP-LEA-PAT-05-O	Carry out pattern grading

Assessment Evidence Plan

An assessment evidence plan is a document that assists in establishing what evidence needs to be collectedby 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 needed to collect the evidence

Occupation:	Pattern Making, Grading and CAD-CAM Operation				
Unit Name:	Operate in a team environment				
Unit Code:	SEIP-LEA-PAT-01-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 problems.				√	
	4.4. It is looked beyond the obvious and not stopped at the first answers.				√	

Occupation:	Pattern Making, Grading and CAD-CAM Operation					
Unit Name:	Apply occupational health and safety (OHS) practice in the workplace					
Unit Code:	SEIP-LEA-PAT-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 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.** Respond 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:	Pattern Making, Grading and CAD-CAM Operation					
Unit Name:	Understand pattern making and CAD-CAM operations					
Unit Code:	SEIP-LEA-PAT-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. Describe concept of pattern making	**1.1.** Basic styles of footwear are identified.	√		
	1.2. Shoe construction is explained and illustrated.			√
	1.3. Types of lasts are identified and categorised.	√		
	1.4. Reference points for last are identified.	√		
	1.5. Concept of pattern making is clearly defined.			√
2. Identify basic requirements for CAD-CAM operations	**2.1.** CAD-CAM operations are appropriately identified.	√		
	2.2. Functions of CAD-CAM systems are identified and described.			√
	2.3. Basic CAD-CAM software is identified.	√		
3. Identify devices and hardware required for CAD-CAM operations	**3.1.** CAD-CAM devices required for effective operation are identified.	√		
	3.2. Use of CAD-CAM hardware is carried out correctly.	√		

Occupation:	Pattern Making, Grading and CAD-CAM Operation				
Unit Name:	Carry out manual pattern making operations				
Unit Code:	SEIP-LEA-PAT-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. Prepare a mean forme	**1.1.** Mean forme making process is identified and described.					√
	1.2. Last, pattern paper and masking tape are identified and selected.			√		
	1.3. Mean forme making is carried out as per job specification.			√		
2. Develop standard/shell	**2.1.** Types of standard/shell are identified.			√		
	2.2. Upper standard/shell making is performed.			√		
	2.3. Lining standard/shell making is carried out.			√		
3. Cut pattern from standard/shell	**3.1.** Upper piece patterns are cut following upper standard.			√		
	3.2. Lining piece patterns are cut following lining standard.			√		
	3.3. Reinforcement pattern pieces are cut following upper piece pattern.			√		

Occupation:	Pattern Making, Grading and CAD-CAM Operation				
Unit Name:	Prepare a standard/shell using 3D software				
Unit Code:	SEIP-LEA-PAT-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. Digitise last	**1.1.** A hole on back centre line curve point is made by drill machine as per pin diameter.		√		
	1.2. The last is placed on 3D scanning chamber by means of pin hole.		√		
	1.3. The parameter for scanning is set.		√		
	1.4. Digitising is carried out.		√		
	1.5. Scanned last is converted to 3D last (elast).		√		
2. Develop a standard/shell	**2.1.** 3D last (elast) is imported/opened.		√		
	2.2. The last reference points are selected.		√		
	2.3. The guidelines are selected and followed.		√		
	2.4. The style lines are drawn and the standard/shell on 3D last (elast) is completed.		√		

Occupation:	Pattern Making, Grading and CAD-CAM Operation				
Unit Name:	Perform computer aided pattern making operations using 2D software				
Unit Code:	SEIP-LEA-PAT-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. Digitise 2D standard/shell	**1.1.** Standard/shell is developed and prepared for digitising, either manually or by 3D software.		√		
	1.2. Digitising tablet is initialised.		√		
	1.3. Simple and advanced style lines are digitised.		√		
	2.1. New style lines are created.		√		

2. Create new style lines	**2.2.** Duplicate line is created.	√		
	2.3. New offset line is made.	√		
	2.4. Tied offset line is prepared.	√		
	2.5. Mirror line and tied mirror line is created.	√		
	2.6. Line modification is carried out.	√		
3. Cut piece patterns	**3.1.** Working sequence of CAD-CAM is identified.			√
	3.2. Punches are created and saved.	√		
	3.3. New piece is created.	√		
	3.4. Pattern engineering is carried out.	√		
	3.5. Final piece pattern making is completed.	√		
	3.6. Piece pattern is cut using CAM.	√		

Occupation:	Pattern Making, Grading and CAD-CAM Operation				
Unit Name:	Perform pattern grading				
Unit Code:	SEIP-LEA-PAT-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. Identify grading parameters	**1.1.** Grading parameters are identified and defined.			√		
	1.2. Setting rules and default grade type are followed.			√		
	1.3. Grade setting, and shell grade rules are followed and maintained.			√		
	1.4. Measurement differences between the sizes are calculated and recorded.					√
2. Carry out grading	**2.1.** Grading rules are selected and parameters are applied.			√		
	2.2. Model size and size range is selected.			√		
	2.3. Dialog box is followed as per job specification.			√		
3. Check and cut graded patterns	**3.1.** Restriction grading areas are checked.			√		
	3.2. Pattern engineering points are followed.			√		
	3.3. Graded patterns are prepared and saved.			√		
	3.4. Graded patterns are cut using CAM.			√		

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 units of competency that comprise of the Certificate in Pattern Making, Grading and CAD-CAM Operation. 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 competencythrough 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.

You 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:	**Pattern making, grading and CAD-CAM operation**
Units of competency:	**Generic units:** Operate in a team environment **Sector-specific units:** Apply occupational health and safety (OHS) practice in the workplace **Occupation-specific units:** Understand pattern making and CAD-CAM operations Carry out manual pattern making operations Prepare a standard/shell using 3D software Perform computer aided pattern making operations Carry out pattern grading

Instructions:

- 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 and follow safety signs and symbols		
▪ Apply OHS policies and procedures in the work place including personal protective equipment (PPE)		
▪ Recognise common health issues		
▪ Interpret OHS policies and safe operating procedures		
▪ Determine application of tools to job requirements		
▪ Response evacuation procedures and interpret correctly other contingency measures.		
▪ Identify common safety issues		
▪ Identify Hazards and risks		
▪ Interpret and control hazards and risk assessment		

▪ Respond to alarms and warning devices		
▪ Respond to emergency response plan and procedures		
▪ Identify First aid procedures during emergency situation		
▪ Identify and interpret roles and objectives of the team		
▪ Identify and interpret roles and responsibilities of team members		
▪ Identify personal role and responsibilities within the team environment		
▪ Report and interpret relationship within team and external to team		
▪ Identify and provide support other team mate tasks when requested		
▪ Share information or expertise, working together to solve problem, the team is encouraged and putting team success first		
▪ Interpret and respect views and opinions		
▪ Identify problems faced at the individual and team level and show insight into the root –causes of the problems		
▪ Identify a range of solutions and courses of action together with benefits, costs, and risks associated with each.		
▪ Recognise and advice the good ideas of others to help develop solutions, sought from those who have solved similar problems		
▪ Look beyond the obvious and not stopped at the first answers		
▪ Identify basic styles of footwear		
▪ Explain and illustrate shoe construction		
▪ Identify and categorise types of lasts		
▪ Identify reference points for last		
▪ Define clearly concept of pattern making		
▪ Identify appropriately CAD-CAM operations		
▪ Identify and describe functions of CAD-CAM system		
▪ Identify basic CAD-CAM soft wear		
▪ Identify CAD-CAM devices required for effective operation		
▪ Use carried out correctly CAD-CAM hard wear		
▪ Identify and describe Mean forme making process		
▪ Identify and select last , pattern paper and masking tape		
▪ Carry out Mean forme making as per job specification		
▪ Identify types of standard/shell		
▪ Perform upper standard/shell making		
▪ Carry out lining standard/shell making		
▪ Cut upper piece patterns following upper standard		

▪ Cut lining piece patterns following lining standard		
▪ Cut reinforcement pattern pieces are cut following upper piece pattern		
▪ Made a hole on back centreline curve point by drill machine as per pin diameter		
▪ Place the last on 3D scanning chamber by means of pin hole		
▪ Set the parameter for scanning		
▪ Carry out digitising		
▪ Convert scanned last in to 3D last (elast)		
▪ Import/open 3D last (elast)		
▪ Select the last reference point		
▪ Select and follow the guidelines		
▪ Drawn and complete the style lines and the standard/shell on 3D last (elast)		
▪ Develop and prepare standard/shell for digitising, either manually or by 3D softwear		
▪ Initialise digitising tablet		
▪ Digitise simple and advance style lines		
▪ Create new style lines		
▪ Create duplicate line		
▪ Made new offset line		
▪ Prepare tied offset line		
▪ Create mirror line and tied mirror line		
▪ Carry out line modification		
▪ Identify working sequence of CAD-CAM		
▪ Create and save punches		
▪ Create new piece		
▪ Carry out pattern engineering		
▪ Complete final piece pattern making		
▪ Cut piece pattern using CAM		
▪ Identify and define grading parameters		
▪ Follow setting rules and default grade type		
▪ Follow and maintain grade setting and shell grade rules		
▪ Calculate and record measurement differences between the sizes		
▪ Select and apply grading rules and parameters		

▪ Select model size and size range		
▪ Follow dialog box as per job specification		
▪ Check restriction grading areas		
▪ Follow pattern engineering points		
▪ Clean work area		
▪ Dispose of waste materials in proper place		

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 - Pattern Making, Grading and CAD-CAM Operation

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 assessmentagreement 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 Pattern Making, Grading and CAD-CAM Operation, you must demonstrate competence in the following units, as established in the assessment agreement:

CODE	UNIT OF COMPETENCY
Generic Competencies	
SEIP-LEA-PAT-01-G	Operate in a team environment
Sector-specific Competencies	
SEIP-LEA-PAT-01-S	Apply occupational health and safety (OHS) practice in the workplace
Occupation-specific Competencies	
SEIP-LEA-PAT-01-O	Understand pattern making and CAD-CAM operations
SEIP-LEA-PAT-02-O	Carry out manual pattern making operations
SEIP-LEA-PAT-03-O	Prepare a standard/shell using 3D software
SEIP-LEA-PAT-04-O	Perform computer aided pattern making operations
SEIP-LEA-PAT-05-O	Carry out pattern grading

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

Assessment Agreement	
Occupation:	Pattern Making, Grading and CAD-CAM Operation
Assessment Centre:	
Candidate Name:	
Assessor Name:	
Unit of Competency	
Generic Competencies	
SEIP-LEA-PAT-01-G	Operate in a team environment
Sector-specific Competencies	
SEIP-LEA-PAT-01-S	Apply occupational health and safety (OHS) practice in the workplace
Occupation-specific Competencies	
SEIP-LEA-PAT-01-O	Understand pattern making and CAD-CAM operations
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SEIP-LEA-PAT-03-O	Prepare a standard/shell using 3D software
SEIP-LEA-PAT-04-O	Perform computer aided pattern making operations
SEIP-LEA-PAT-05-O	Carry out pattern grading

Resources Required for Assessment

Candidates must have access to the following:

- 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

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.

If candidates answer verbally, the assessor should record their answers in detail.

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.

Candidates must fully understand what they are required to do to complete these assessment tasks successfully, then sign the declaration.

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 Pattern Making, Grading and CAD-CAM Operation , 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 one (1) set of the following practical demonstration activities:
        - Set A:
            - prepare a mean forme
            - perform pattern making using 2D software
            - carry out pattern cutting
        - Set B:
            - prepare a standard from a given mean forme manually
            - digitize standard in 2D software
            - carry out grading of prepared pattern
        - Set C:
            - make a pattern manually from a standard/shell
            - digitize last by 3D software/make a mean forme using 3D software
            - carry out pattern cutting using CAM or plotters
    - 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 (6 hours) – **performance evidence**

    The practical demonstration activities will be divided into three (3) tasks (contained in one set):

    (i) Practical demonstration 1 (2 hours)

    (ii) Practical demonstration 2 (2 hours)

    (iii) Practical demonstration 3 (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:

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 Pattern Making, Grading and CAD-CAM Operation. Using the performance criteria as a benchmark, evidence will be gathered through:

1. Written Test (1 hour) – a variety of multiple-choice, true of false and short answer theory questions to support your competence with regard to the required knowledge (**knowledge evidence**).

2. Practical Demonstration (6 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 one (1) set of practical demonstration activities to complete. The assessor will direct you as to which 'set' you will be required to complete out of the following:

   - Set A:
     - prepare a mean forme (2 hours)
     - perform pattern making using 2D software (2 hours)
     - carry out pattern cutting (2 hours)
   - Set B:
     - prepare a standard from a given mean forme manually (2 hours)
     - digitize standard in 2D software (2 hours)
     - carry out grading of prepared pattern (2 hours)
   - Set C:
     - make a pattern manually from a standard/shell (2 hours)
     - digitize last by 3D software/make a mean forme using 3D software (2 hours)
     - carry out pattern out pattern cutting using CAM or plotters (2 hours)

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 Pattern Making, Grading and CAD-CAM Operation.

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 Pattern Making, Grading and CAD-CAM Operation
Unit of Competency	**Element**
Generic Competencies	
SEIP-LEA-PAT-01-G	Operate in a team environment
Sector-specific Competencies	
SEIP-LEA-PAT-01-S	Apply occupational health and safety (OHS) practice in the workplace
Occupation-specific Competencies	
SEIP-LEA-PAT-01-O	Understand pattern making and CAD-CAM operations
SEIP-LEA-PAT-02-O	Carry out manual pattern making operations
SEIP-LEA-PAT-03-O	Prepare a standard/shell using 3D software
SEIP-LEA-PAT-04-O	Perform computer aided pattern making operations
SEIP-LEA-PAT-05-O	Carry out pattern grading
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	
Instructions:	
Read and understand the directions carefully: ▪ this written examination is based on the performance criteria from all the units of competency in Pattern Making, Grading and CAD-CAM Operation ▪ 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 is the meaning of PPE?	a. Permanent protective element b. Personal protective equipment c. Permanent presentable equipment
2.	Key characteristics of last for cemented construction are?	a. Good quality of plastic material b. Specific preparation of feather edge c. Round feather edge
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.	Which are the basic styles of footwear?	a. Oxford b. Derby c. Court d. Slip-on e. Moccasin f. Boot g. Sandals h. All of the above
5.	The main type or types of last are?	a. Solid block b. Scoop c. V-hinge d. C-hinge e. Telescopic f. All the above
6.	Pattern making is the process of creating a?	a. Shoe b. Bag c. Jacket d. All the above
7.	The last for construction made in aluminium.	a. Moccasin construction b. Vulcanized construction c. Strobel construction.

8.	What is the meaning of LFP?	a. Last finishing part b. Last fitting point c. Last flattened part
9.	What types of common hazards could you find in the workplace?	a. Chemical hazards b. Physical hazards c. Biological hazards d. All of the above
10.	The final 'mean forme' is called?	a. Unified forme b. Pattern making c. Lining standard/shell making
True of False Quiz		
Tick (√) the box corresponding to the correct answer.		
11.	The word 'all right' indicates a positive response.	True ☐ False ☐
12.	Excessive noise can cause permanent hearing loss.	True ☐ False ☐
13.	Effective teamwork results from good leadership and attention to team building.	True ☐ False ☐
Fill in the Missing Blanks		
Write the word or group of words needed to complete the following sentences.		
14.	_____ is used to protect eyes from flying particles and other debris which may cause personal injury to a worker.	
15.	_____ is a powerful tool. At times, this is the only way to resolve a conflict.	
Short Answer		
Write a short answer in the space provided (not to exceed more than approximately twenty-five (25) words).		
16.	Write down the basic styles of footwear.	
17.	Types of shoe construction.	

18.	List down five raw materials suggested used in the manufacture of leather goods.	
19.	What is teamwork?	
20.	What is the function of a CAD-CAM system?	

Feedback to candidate:

Assessment decision for this assessment activity:

☐ **Competent** ☐ **Not Yet Competent**

Candidate's Signature:		**Date:**	
Assessor's Signature:		**Date:**	

Written Test - Answers

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

Multiple Choice		
1.	What is the meaning of PPE?	a. Permanent protective element ***b. Personal protective equipment*** c. Permanent presentable equipment
2.	Key characteristics of last for cemented construction are?	***a. Good quality of plastic material*** b. Specific preparation of feather edge c. Round feather edge
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.	Which are the basic styles of footwear?	a. Oxford b. Derby c. Court d. Slip-on e. Moccasin f. Boot g. Sandals ***h. All of the above***
5.	The main type or types of last are?	a. Solid block b. Scoop c. V-hinge d. C-hinge e. Telescopic ***f. All the above***
6.	Pattern making is the process of creating a?	a. Shoe b. Bag c. Jacket ***d. All the above***
7.	The last for construction made in aluminium.	a. Moccasin construction ***b. Vulcanized construction***

		c. Strobel construction.
8.	What is the meaning of LFP?	a. Last finishing part b***. Last fitting point*** c. Last flattened part
9.	What types of common hazards could you find in the workplace?	a. Chemical hazards b. Physical hazards c. Biological hazards ***d. All of the above***
10.	The final 'mean forme' is called?	***a. Unified form*** b. Pattern making c. Lining standard/shell making
True of False Quiz		
11.	The word 'all right' indicates a positive response.	***True*** √ False ☐
12.	Excessive noise can cause permanent hearing loss.	***True*** √ False ☐
13.	Effective teamwork results from good leadership and attention to team building.	***True*** √ False ☐
Fill in the Missing Blanks		
14.	***Safety glasses or googles*** ***(both are suitable answers)*** is used to protect eyes from flying particles and other debris which may cause personal injury to a worker.	
15.	***Forgiveness*** is a powerful tool. At times, this is the only way to resolve a conflict.	
Short Answer		
16.	Write down the basic styles of footwear.	***a. Oxford*** ***b. Derby*** ***c. Court*** ***d. Slip-on*** ***e. Moccasin*** ***f. Boot*** g. ***Sandals***
17.	Types of shoe construction.	***a. Cemented*** ***b. Welted*** ***c. Moccasin*** ***d. String*** ***e. Strobel***

		e. Californian
18.	List down five raw materials suggested used in the manufacture of leather goods.	***Materials for leather goods:*** ***a. Leather shoe upper*** ***b. Synthetic upper materials*** ***c. Lining leather/materials*** ***d. Insole material*** ***e. Soling material***
19.	What is teamwork?	***Teams are groups of people with complementary skills who are committed to a common purpose and hold themselves mutually accountable for its achievement. Ideally, they develop a distinct identity and work together in a coordinate and mutually supportive way to fulfil their goal or purpose.***
20.	What is the function of a CAD-CAM system?	***CAD/CAM in the footwear industry is theuse of computers and graphics software for designing and grading of shoe upper patterns and, for manufacturing of cutting dies, shoe lasts and sole moulds. CAD/CAM software is a PC-based system, which is made up of program modules. Today, there are 2D and 3D versions of CAD/CAM systems in the shoe industry.***

Set A: Practical Demonstration 1

PRACTICAL DEMONSTRATION 1	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Prepare a mean forme
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	

Instructions:

Read and understand the directions carefully:

- this practical demonstration is based on the performance criteria from all or some of the units of competency in Pattern Making, Grading and CAD-CAM Operation
- 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

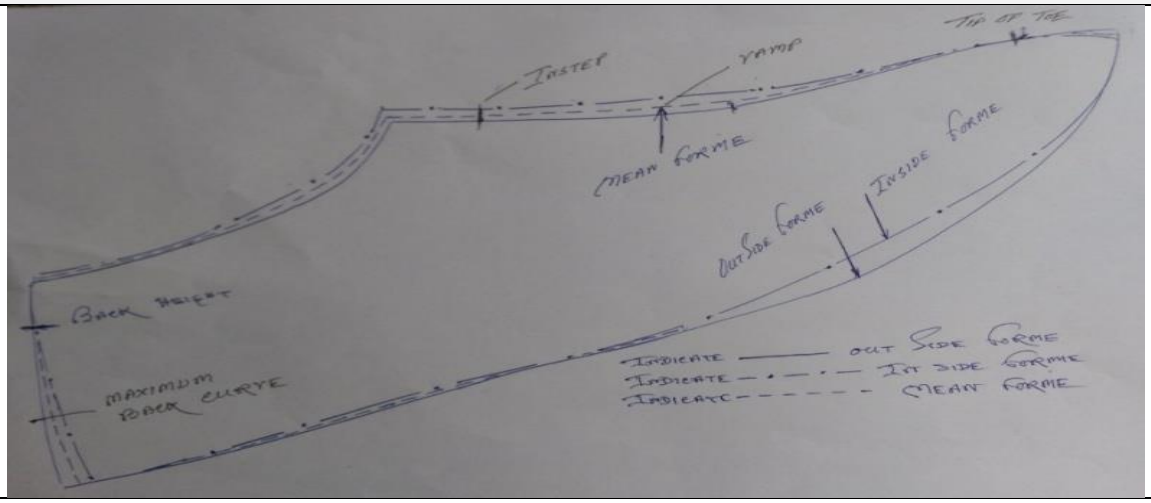
Procedure:

- 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) requirementsat all times

Job Specification Information:

1. Identify and select last, pattern paper and masking tape.
2. Identify and describe mean forme making process.
3. Carry out mean forme making.

Drawing, Plan, Diagram or Sketch:



Resources Required:	
Tools:	Last Scissors NT cutter Measuring scale Pencil Eraser
Equipment:	N/A
Machinery:	N/A
Materials:	Masking tape Pattern paper
PPE:	Apron Gloves Safety shoes

Set A: Practical Demonstration 1 – Observation Checklist

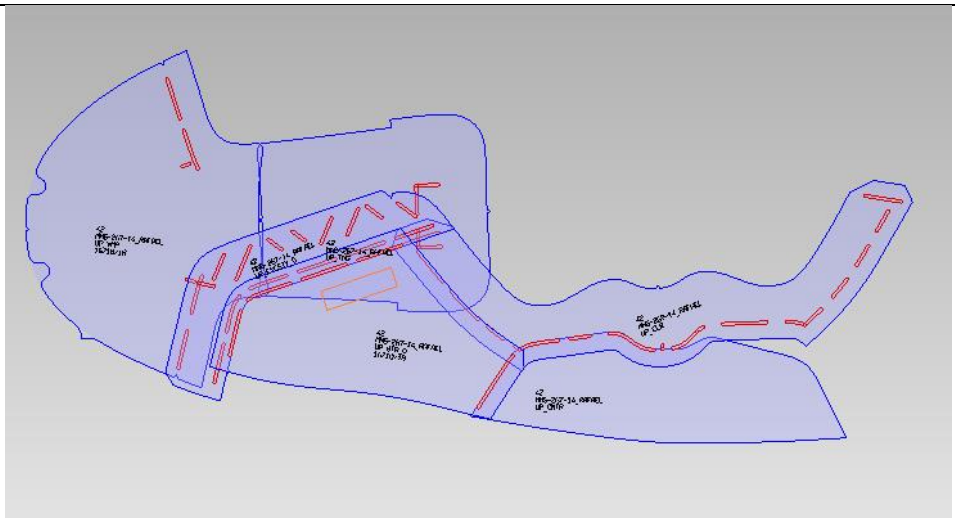
PRACTICAL DEMONSTRATION 1 – OBSERVATION CHECKLIST	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Prepare a mean forme
Assessment Centre:	
Date of Assessment:	
Instructions:	The tasks listed on the observation checklist of the practical demonstration will provide performance evidence of the candidate. Performance can be observed in an actual workplace or in a simulated working environment. 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. The assessment activity (practical demonstration) should: ▪ 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**
Identified and followed safety signs and symbols	☐	☐
Selected and used personal protective equipment (PPE)	☐	☐
Maintained personal hygiene	☐	☐
Identified, selected and prepared hand and power tools	☐	☐
Identified and selected last, pattern paper and masking tape	☐	☐
Covered the last both side by masking tape	☐	☐
Drew front and back centre line	☐	☐
Cleaned work area	☐	☐
Disposed of waste materials in proper place	☐	☐
Feedback to candidate:		

Assessment decision for this assessment activity: ☐ **Competent** ☐ **Not Yet Competent**			
Candidate's Signature:		**Date:**	
Assessor's Signature:		**Date:**	

Set A: Practical Demonstration 2

PRACTICAL DEMONSTRATION 2	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Perform pattern making using 2D software
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	
Instructions:	
Read and understand the directions carefully: ▪ this practical demonstration is based on the performance criteria from all or some of the units of competency in Pattern Making, Grading and CAD-CAM Operation ▪ 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:	
▪ 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) requirementsat all times	
Job Specification Information:	
1. Working sequence of CAD-CAM is identified. 2. Punches are created and saved. 3. New piece is created. 4. Pattern engineering is carried out. 5. Final piece pattern making is completed. 6. Piece pattern is cut using CAM.	
Drawing, Plan, Diagram or Sketch:	



Resources Required:	
Tools:	Plotter
Equipment:	Computer/laptop CAD CAM system
Machinery:	N/A
Materials:	Writing materials Eraser
PPE:	Apron

Set A: Practical Demonstration 2 – Observation Checklist

PRACTICAL DEMONSTRATION 2 – OBSERVATION CHECKLIST	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Perform pattern making using 2D software
Assessment Centre:	
Date of Assessment:	
Instructions:	The tasks listed on the observation checklist of the practical demonstration will provide performance evidence of the candidate. Performance can be observed in an actual workplace or in a simulated working environment. 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. The assessment activity (practical demonstration) should: ▪ 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**
Identified and followed safety signs and symbols	☐	☐
Selected and used personal protective equipment (PPE)	☐	☐
Identified hazard and risks &maintained personal hygiene	☐	☐
Prepared standard/shell for digitising (shell is developed either manually or by 3D software)	☐	☐
Initialised digitizing tablet	☐	☐
Digitised simple and advanced style lines	☐	☐
Created new style lines	☐	☐
Created duplicate line	☐	☐
Made new offset line	☐	☐
Prepared tied offset line	☐	☐
Created mirror line and tied mirror line	☐	☐

Carried out line modification	☐	☐
Identified working sequence of CAD-CAM	☐	☐
Created and save punches	☐	☐
Created new piece	☐	☐
Carried out pattern engineering	☐	☐
Completed final piece pattern making	☐	☐
Cut piece pattern using CAM	☐	☐
Cleaned the workplace	☐	☐
Feedback to candidate:		
Assessment decision for this assessment activity: ☐ **Competent** ☐ **Not Yet Competent**		

Candidate's Signature:		**Date:**	
Assessor's Signature:		**Date:**	

Set A: Practical Demonstration 3

PRACTICAL DEMONSTRATION 3	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Carry out pattern grading
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	

Instructions:

Read and understand the directions carefully:

- this practical demonstration is based on the performance criteria from all or some of the units of competency in Pattern Making,m Grading and CAD-CAM Operation
- 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

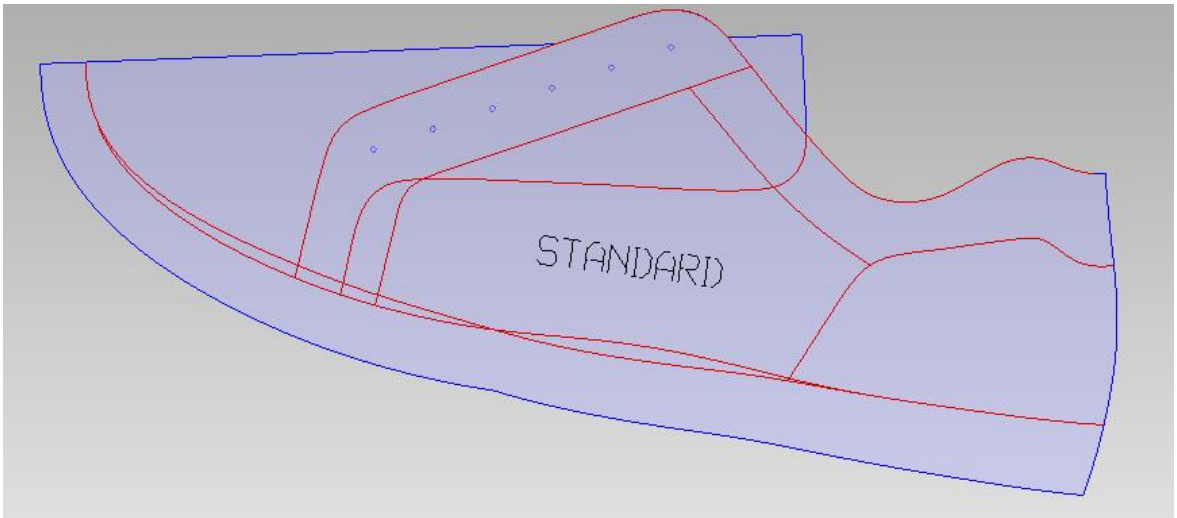
Procedure:

- 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) requirementsat all times

Job Specification Information:

1. Grading parameters are identified and defined.
2. Setting rules and default grade type are followed.
3. Grade setting and shell grade rules are followed and maintained.
4. Measurement differences between the sizes are calculated and recorded.
5. Grading rules are selected and parameters are applied.
6. Model size and size range is selected.
7. Dialog box is followed as per job specification.

Drawing, Plan, Diagram or Sketch:



Resources Required:	
Tools:	Plotter
Equipment:	Computer/laptop CAD–CAM system
Machinery:	N/A
Materials:	Writing materials Stationary
PPE:	Apron

Set A: Practical Demonstration 3 – Observation Checklist

PRACTICAL DEMONSTRATION 3 – OBSERVATION CHECKLIST	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Carry out Pattern Grading
Assessment Centre:	
Date of Assessment:	
Instructions:	The tasks listed on the observation checklist of the practical demonstration will provide performance evidence of the candidate. Performance can be observed in an actual workplace or in a simulated working environment. 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. The assessment activity (practical demonstration) should: ▪ 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**
Identified and followed safety signs and symbols	☐	☐
Selected and used personal protective equipment (PPE)	☐	☐
Identified hazard and risk & maintained personal hygiene	☐	☐
Defined and set grading parameters	☐	☐
Followed setting rules and default grade	☐	☐
Maintained grade setting and shell grade rules	☐	☐
Calculated and recorded measurement differences between the sizes	☐	☐
Selected grading rules and apply parameters	☐	☐
Selected model size and size range	☐	☐
Followed dialog box as per job specification	☐	☐
Checked restriction grading areas	☐	☐

Followed pattern engineering points	☐	☐
Prepared and saved graded patterns	☐	☐
Graded patterns were cut using CAM	☐	☐
Cleaned work area	☐	☐
Feedback to candidate:		
Assessment decision for this assessment activity: ☐ **Competent** ☐ **Not Yet Competent**		

Candidate's Signature:		**Date:**	
Assessor's Signature:		**Date:**	

Set B: Practical Demonstration 1

PRACTICAL DEMONSTRATION 1	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Prepare a standard from a given mean forme manually
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	

Instructions:

Read and understand the directions carefully:

- this practical demonstration is based on the performance criteria from all or some of the units of competency in Pattern Making, Grading and CAD-CAM Operation
- 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 one (2) hour to complete this demonstration

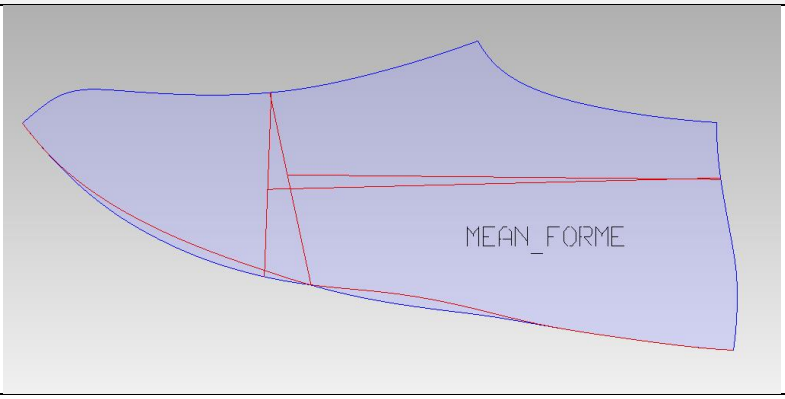
Procedure:

- 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:

1. Get a mean forme and relevant materials needed to prepare for a standard.
2. Prepare the standard in accordance to requirements.
3. Mark the points on the outline of your meanform.
4. Make the necessary calculation, measurements and assumptions based from the given drawing below.
5. Clean the workplace.

Drawing, Plan, Diagram or Sketch:



Resources Required:	
Tools:	Last Scissors NT cutter Measuring scale
Equipment:	N/A
Machinery:	N/A
Materials:	Masking tape Pattern paper
PPE:	Apron

Set B: Practical Demonstration 1 – Observation Checklist

PRACTICAL DEMONSTRATION 1 – OBSERVATION CHECKLIST	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Prepare a standard from a given mean forme manually
Assessment Centre:	
Date of Assessment:	
Instructions:	The tasks listed on the observation checklist of the practical demonstration will provide performance evidence of the candidate. Performance can be observed in an actual workplace or in a simulated working environment. 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. The assessment activity (practical demonstration) should: ▪ 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**
Identified and followed safety signs and symbols	☐	☐
Selected and used personal protective equipment (PPE)	☐	☐
Maintained personal hygiene	☐	☐
Identified, selected and prepared hand and power tools	☐	☐
Identified and selected last, pattern paper and masking tape	☐	☐
Covered the last both side by masking tape	☐	☐
Drew front and back centre line	☐	☐
Pointed out reference points like instep point, vamp, tip of toe, back height/counter point, maximum back curve	☐	☐
Cut outside and inside forme as per front and back centre line	☐	☐
Removed both forme from the last and cut along centre line mark	☐	☐
Replaced forme on last and check accuracy	☐	☐

Get a mean forme and relevant materials needed to prepare for a standard	☐	☐
Prepare the standard in accordance to requirements	☐	☐
Mark the points on the outline of your meanform	☐	☐
Cleaned work area	☐	☐
Disposed of waste materials in proper place	☐	☐
Feedback to candidate:		
Assessment decision for this assessment activity: ☐ **Competent** ☐ **Not Yet Competent**		

Candidate's Signature:		**Date:**	
Assessor's Signature:		**Date:**	

Set B: Practical Demonstration 2

PRACTICAL DEMONSTRATION 2	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Digitize the standard in 2D software
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	

Instructions:

Read and understand the directions carefully:

- this practical demonstration is based on the performance criteria from all or some of the units of competency in Pattern Making, Grading and CAD-CAM Operation
- 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

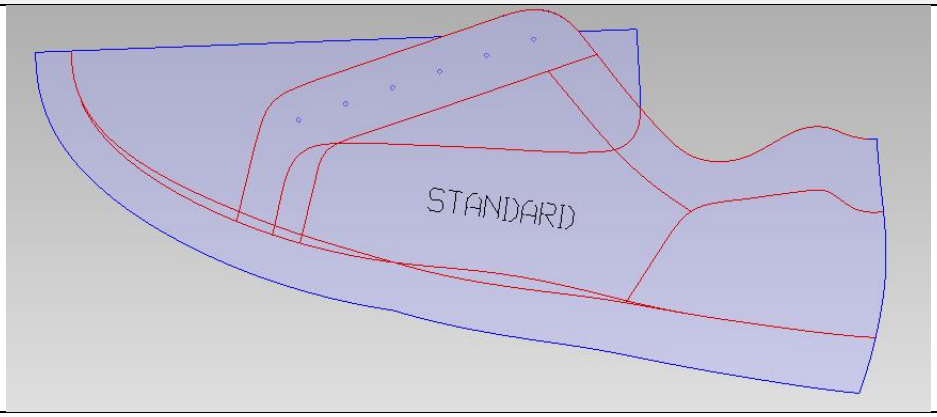
Procedure:

- 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:

1. Get a standard.
2. Prepare the necessary tools and equipment for digitizing.
3. Digitize the standard in a 2D software..
4. Make the necessary calculation, measurements and assumptions based from the given drawing below.
5. Clean the workplace.

Drawing, Plan, Diagram or Sketch:



Resources Required:	
Tools:	Last Scissors NT cutter Measuring tape
Equipment:	N/A
Machinery:	N/A
Materials:	Masking tape Pattern paper
PPE:	Apron

Set B: Practical Demonstration 2 – Observation Checklist

PRACTICAL DEMONSTRATION 2 – OBSERVATION CHECKLIST	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Digitize the standard in 2D software
Assessment Centre:	
Date of Assessment:	
Instructions:	The tasks listed on the observation checklist of the practical demonstration will provide performance evidence of the candidate. Performance can be observed in an actual workplace or in a simulated working environment. 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. The assessment activity (practical demonstration) should: ▪ 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**
Identified and followed safety signs and symbols	☐	☐
Selected and used personal protective equipment (PPE)	☐	☐
Maintained personal hygiene	☐	☐
Determined application of tools to job requirements	☐	☐
Identified, selected and prepared hand and power tools	☐	☐
Used appropriate hand and power tools for the job	☐	☐
Prepared standard/shell for digitising (shell is developed by 2D software)	☐	☐
Initialised digitizing tablet	☐	☐
Digitised simple and advanced style lines	☐	☐
Created new style lines	☐	☐
Created duplicate line	☐	☐

Prepared the necessary tools and equipment for digitizing	☐	☐
Digitized the standard in a 2D software	☐	☐
Made the necessary calculation, measurements and assumptions based from the given drawing below	☐	☐
Cleaned the workplace	☐	☐
Feedback to candidate:		
Assessment decision for this assessment activity: ☐ **Competent** ☐ **Not Yet Competent**		

Candidate's Signature:		**Date:**	
Assessor's Signature:		**Date:**	

Set B: Practical Demonstration 3

PRACTICAL DEMONSTRATION 3	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern making, grading and CAD-CAM operation
Task:	Carry out grading from a prepared pattern
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	

Instructions:

Read and understand the directions carefully:

- this practical demonstration is based on the performance criteria from all or some of the units of competency in Pattern Making, Grading and CAD-CAM Operation
- 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

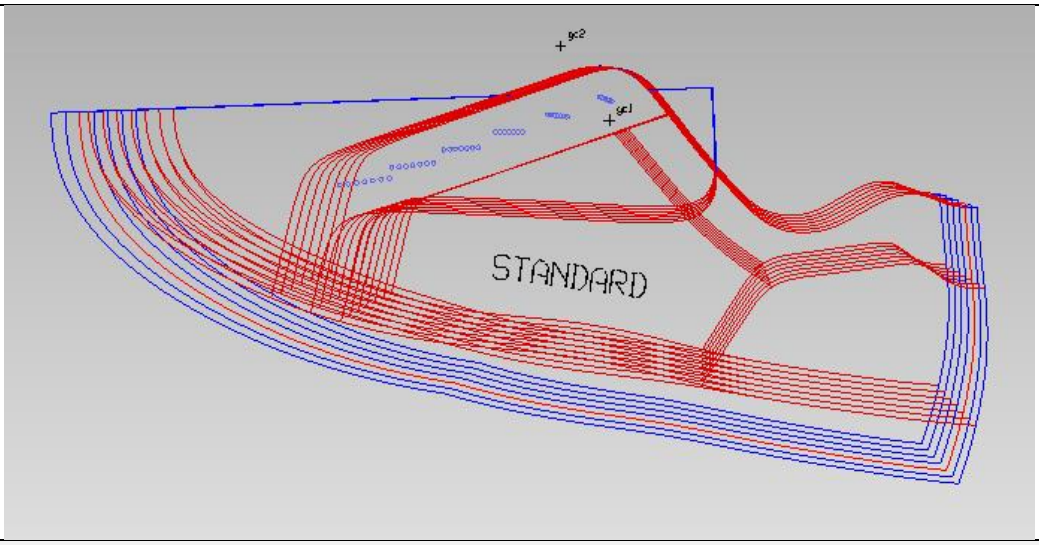
Procedure:

- 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:

1. Get a standard.
2. Prepare the necessary tools and equipment for digitizing.
3. Select grade increments in accordance with style requirements for men's shoe.
4. Make the necessary calculation, measurements and assumptions based from the given drawing below.
5. Grade model size based from the required fitting range given by your assessor.
6. Checked grading for accuracy.
7. Clean the workplace.

Drawing, Plan, Diagram or Sketch:



Resources Required:	
Tools:	Measuring tape Plotter
Equipment:	Computer/laptop CAD-CAM system
Machinery:	N/A
Materials:	Writing materials Stationary Pattern paper
PPE:	Apron

Set B : Practical Demonstration 3 – Observation Checklist

PRACTICAL DEMONSTRATION 3 – OBSERVATION CHECKLIST	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Carry out grading from a prepared pattern
Assessment Centre:	
Date of Assessment:	
Instructions:	The tasks listed on the observation checklist of the practical demonstration will provide performance evidence of the candidate. Performance can be observed in an actual workplace or in a simulated working environment. 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. The assessment activity (practical demonstration) should: ▪ 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**
Identified and followed safety signs and symbols	☐	☐
Selected and used personal protective equipment (PPE)	☐	☐
Maintained personal hygiene	☐	☐
Determined application of tools to job requirements	☐	☐
Identified, selected and prepared hand and power tools	☐	☐
Used appropriate hand and power tools for the job	☐	☐
Defined and set grading parameters	☐	☐
Followed setting rules and default grade	☐	☐
Maintained grade setting and shell grade rules	☐	☐
Calculated and recorded measurement differences between the sizes	☐	☐
Prepare the necessary tools and equipment for digitizing	☐	☐

Selected grade increments in accordance with style requirements for men's shoe	☐	☐
Made the necessary calculation, measurements and assumptions based from the given drawing below	☐	☐
Graded model size based from the required fitting range given by your assessor	☐	☐
Checked grading for accuracy	☐	☐
Cleaned the workplace	☐	☐
Feedback to candidate:		
Assessment decision for this assessment activity: ☐ **Competent** ☐ **Not Yet Competent**		

Candidate's Signature:		**Date:**	
Assessor's Signature:		**Date:**	

Set C: Practical Demonstration 1

PRACTICAL DEMONSTRATION 1	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Make a pattern manually from a standard/shell
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	

Instructions:

Read and understand the directions carefully:

- this practical demonstration is based on the performance criteria from all or some of the units of competency in Pattern Making, Grading and CAD-CAM Operation
- 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

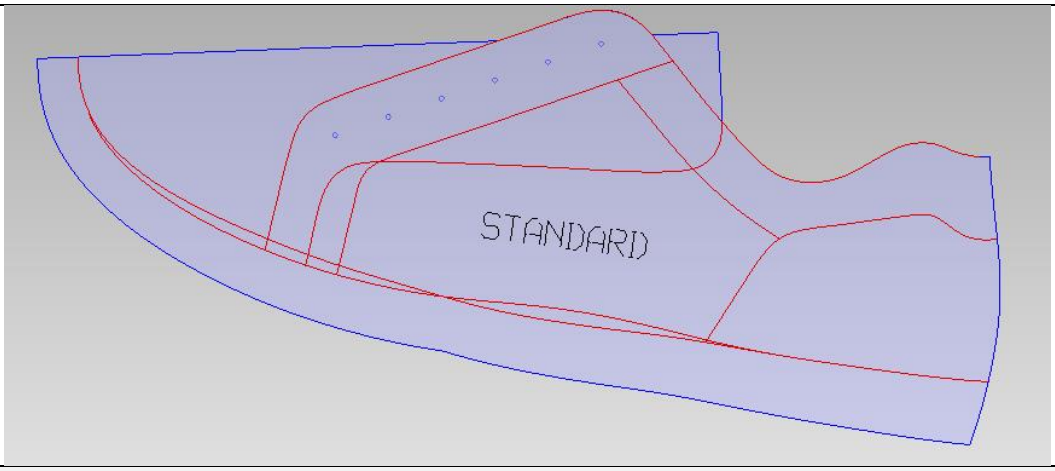
Procedure:

- 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) requirementsat all times

Job Specification Information:

1. Get a standard/shell and relevant materials needed to prepare a pattern.
2. Prepare the pattern in accordance to requirements.
3. Mark the points on the outline of your standard.
4. Make the necessary calculation, measurements and assumptions based from the given drawing below.
5. Make the pattern (mark the individual parts of the shoe pattern: toe cap, vamp, quarters, tongue and back strip.
6. Clean the workplace.

Drawing, Plan, Diagram or Sketch:



Resources Required:	
Tools:	Scissors NT cutter Measuring tape Divider Pencil
Equipment:	N/A
Machinery:	N/A
Materials:	Pattern paper
PPE:	Apron

Set C: Practical Demonstration 1 – Observation Checklist

PRACTICAL DEMONSTRATION 1 – OBSERVATION CHECKLIST	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Make a pattern manually from a standard/shell
Assessment Centre:	
Date of Assessment:	
Instructions:	The tasks listed on the observation checklist of the practical demonstration will provide performance evidence of the candidate. Performance can be observed in an actual workplace or in a simulated working environment. 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. The assessment activity (practical demonstration) should: ▪ 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**
Identified and followed safety signs and symbols	☐	☐
Selected and used personal protective equipment (PPE)	☐	☐
Maintained personal hygiene	☐	☐
Identified, selected and prepared hand and power tools	☐	☐
Identified and selected last, pattern paper and masking tape	☐	☐
Covered the last both side by masking tape	☐	☐
Drew front and back centre line.	☐	☐
Pointed out reference points like instep point, vamp, tip of toe, back height/counter point, maximum back curve	☐	☐
Cut outside and inside forme as per front and back centre line	☐	☐
Removed both forme from the last and cut along centre line mark	☐	☐

Get a standard/shell and relevant materials needed to prepare a pattern	☐	☐
Prepare the pattern in accordance to requirements	☐	☐
Marked the points on the outline of your standard	☐	☐
Made the necessary calculation, measurements and assumptions based from the given drawing below	☐	☐
Made the pattern (mark the individual parts of the shoe pattern: toe cap, vamp, quarters, tongue and back strip	☐	☐
Cleaned the work area	☐	☐
Disposed of waste materials in proper place	☐	☐
Feedback to candidate:		
Assessment decision for this assessment activity: ☐ **Competent** ☐ **Not Yet Competent**		

Candidate's Signature:		**Date:**	
Assessor's Signature:		**Date:**	

Set C: Practical Demonstration 2

PRACTICAL DEMONSTRATION 2	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Digitize last by 3D software/make a mean forme by 3D software
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	

Instructions:

Read and understand the directions carefully:

- this practical demonstration is based on the performance criteria from all or some of the units of competency in Pattern Making, Grading and CAD-CAM Operation
- 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 minutes to complete this demonstration

Procedure:

- 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) requirementsat all times

Job Specification Information:

1. Get a standard.
2. Prepare the necessary tools and equipment for digitizing.
3. Digitize the last in a 3D software.
4. Carry out pattern cutting using CAD-CAM/plotter.
5. Clean the workplace.

Drawing, Plan, Diagram or Sketch:

N/A

Resources Required:

Tools:	Measuring tape Drill machine
Equipment:	N/A
Machinery:	CAD-CAM system 3D scanner Shoemaster software

	Plotter
Materials:	Pattern paper
PPE:	Apron

Set C: Practical Demonstration 2 – Observation Checklist

PRACTICAL DEMONSTRATION 2 – OBSERVATION CHECKLIST	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Digitize last by 3D software/Make a meanform by 3D software
Assessment Centre:	
Date of Assessment:	
Instructions:	The tasks listed on the observation checklist of the practical demonstration will provide performance evidence of the candidate. Performance can be observed in an actual workplace or in a simulated working environment. 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. The assessment activity (practical demonstration) should: ▪ 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

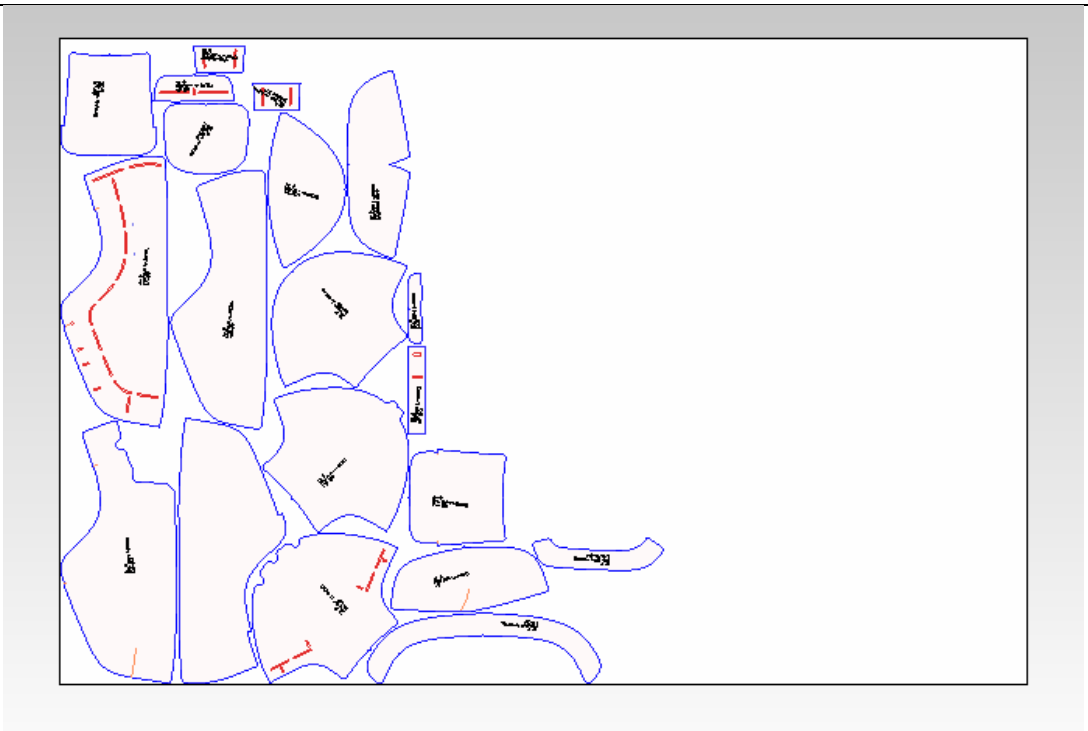
OBSERVATION RECORD		
Performance Criteria	Place a ✓ to show if evidence has been demonstrated competently	
	Yes	**No**
Identified and followed safety signs and symbols	☐	☐
Selected and used personal protective equipment (PPE)	☐	☐
Maintained personal hygiene	☐	☐
Determined application of tools to job requirements	☐	☐
Identified, selected and prepared hand and power tools	☐	☐
Used appropriate hand and power tools for the job	☐	☐
Prepared standard/shell for digitising (shell is developed by 2D software)	☐	☐
Initialised digitizing tablet	☐	☐
Digitised simple and advanced style lines	☐	☐
Created new style lines	☐	☐
Created duplicate line	☐	☐

Prepared the necessary tools and equipment for digitizing	☐	☐
Digitized the standard in a 2D software	☐	☐
Made the necessary calculation, measurements and assumptions based from the given drawing below	☐	☐
Cleaned the workplace	☐	☐
Feedback to candidate:		
Assessment decision for this assessment activity: ☐ **Competent** ☐ **Not Yet Competent**		

Candidate's Signature:		**Date:**	
Assessor's Signature:		**Date:**	

Set C: Practical Demonstration 3

PRACTICAL DEMONSTRATION 3	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Carry out pattern cutting using CAM or plotters
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	
Instructions:	
Read and understand the directions carefully: ▪ this practical demonstration is based on the performance criteria from all or some of the units of competency in Pattern Making, Grading and CAD-CAM Operation ▪ 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:	
▪ 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) requirementsat all times	
Job Specification Information:	
1. Get a standard. 2. Prepare the necessary tools and equipment for pattern cutting. 3. Make the necessary calculation, measurements and assumptions based from the given drawing below. 4. Cut the pattern. 5. Clean the workplace.	
Drawing, Plan, Diagram or Sketch:	



Resources Required:	
Tools:	Scissors Measuring tape
Equipment:	Computer/laptop CAD-CAM system
Machinery:	N/A
Materials:	Writing materials Pattern paper
PPE:	Apron

Set C : Practical Demonstration 3 – Observation Checklist

PRACTICAL DEMONSTRATION 3 – OBSERVATION CHECKLIST	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Task:	Carry out pattern cutting using CAM or plotters
Assessment Centre:	
Date of Assessment:	
Instructions:	The tasks listed on the observation checklist of the practical demonstration will provide performance evidence of the candidate. Performance can be observed in an actual workplace or in a simulated working environment. 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. The assessment activity (practical demonstration) should: ▪ 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**
Identified and followed safety signs and symbols	☐	☐
Selected and used personal protective equipment (PPE)	☐	☐
Maintained personal hygiene	☐	☐
Determined application of tools to job requirements	☐	☐
Identified, selected and prepared hand and power tools	☐	☐
Used appropriate hand and power tools for the job	☐	☐
Defined and set grading parameters	☐	☐
Followed setting rules and default grade as per standard	☐	☐
Maintained grade setting and shell grade rules	☐	☐
Calculated and recorded measurement differences between the sizes	☐	☐
Prepare the necessary tools and equipment for pattern cutting	☐	☐

Make the necessary calculation, measurements and assumptions based from the given drawing below	☐	☐
Cut the pattern	☐	☐
Checked grading for accuracy	☐	☐
Cleaned the workplace	☐	☐
Feedback to candidate:		
Assessment decision for this assessment activity: ☐ **Competent** ☐ **Not Yet Competent**		

Candidate's Signature:		**Date:**	
Assessor's Signature:		**Date:**	

Oral Questions (Optional)

ORAL QUESTIONS - INSTRUCTIONS	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation
Unit of Competency	
Generic Competencies	
SEIP-LEA-PAT-01-G	Operate in a team environment
Sector-specific Competencies	
SEIP-LEA-PAT-01-S	Apply occupational health and safety (OHS) practice in the workplace
Occupation-specific Competencies	
SEIP-LEA-PAT-01-O	Understand pattern making and CAD-CAM operations
SEIP-LEA-PAT-02-O	Carry out manual pattern making operations
SEIP-LEA-PAT-03-O	Prepare a standard/shell using 3D software
SEIP-LEA-PAT-04-O	Perform computer aided pattern making operations
SEIP-LEA-PAT-05-O	Carry out pattern grading
Assessment Centre:	
Date of Assessment:	
Time of Assessment:	
Instructions:	

Read and understand the directions carefully:

- theseoral questions are based on the performance criteria from all the units of competency in Pattern Making, Grading and CAD-CAM Operation
- 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 questionsasked 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?	☐	☐
2.	What does the following sign mean:  	☐	☐
3.	What does the following sign mean:  	☐	☐
4.	Which is a kind of leather with natural texture and no coating on the surface?	☐	☐
5.	Polyurethane coated fabric is an example of what kind of material that is used in footwear manufacturing?	☐	☐
6.	The interior bottom of a shoe, which sits directly beneath the foot, is basically made of wood pulp, paper board, cellulose board and cork foam. What is material referred to?	☐	☐
7.	Another component of leather product manufacturing that is sometimes used as facing and also suitable alternative to leather?	☐	☐
8.	What is the duty of a manual pattern making operator?	☐	☐
9.	What is the difference between standard vulkanized built-up construction and standard moccasin construction?	☐	☐
10.	What is pattern making?	☐	☐
11.	Why is CAD-CAM technology and software used in footwear design?	☐	☐
12.	What are digitizers and scanners?	☐	☐
13.	What is a shoe last?	☐	☐
14.	What is grading?	☐	☐
15.	What is piece pattern cutting?	☐	☐

16.	How many shoe sizing systems are used globally in shoe making?	☐	☐
17.	What are the restricted grading areas?	☐	☐
18.	Define pattern engineering points.	☐	☐
19.	Identify different parameters.	☐	☐
20.	What is pattern engineering?	☐	☐

Feedback to candidate:

Assessment decision for this assessment activity:

☐ **Competent** ☐ **Not Yet Competent**

Candidate's 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?	***Use appropriate personal protective equipment (PPE)in the workplace such as ear plugs.*** ***Provide sound proofing in the workplace, if possible.***
2.	What does the following sign mean: 	***High voltage electricity hazard.***
3.	What does the following sign mean: 	***Emergency exit.***
4.	Which is a kind of leather with natural texture and no coating on the surface?	***Ans:Full grain leather***
5.	Polyurethane coated fabric is an example of what kind of material that is used in footwear manufacturing?	***Ans: Man-made material***
6.	The interior bottom of a shoe, which sits directly beneath the foot, is basically made of wood pulp, paper board, cellulose board and cork foam. What is material referred to?	***Insole material.***
7.	Another component of leather product manufacturing that is sometimes used as facing and also suitable alternative to leather?	***Rexin or synthetic leather.***
8.	What is the duty of a manual pattern making operator?	***Prepare pattern manually for the given design of shoes for any particular size.***
9.	What is the difference between standard vulkanized built-up construction and standard moccasin construction?	***Standard vulcanized built-up construction:*** ***a.Tape the aluminium last.***

		b. No need to spring in case of lace to toe derby or long oxford. ***Standard moccasin construction:*** ***a. The masking tape has to cover the three surfaces: outside, inside and bottom of the last.*** ***b. The flattening is completely different because the lasting follows a specific process.***
10.	What is pattern making?	***Pattern making is the process of creating a sets of pattern of a 'Project' by manual or CAD to make shoe upper by the joining of various parts of upper and lining, so that these can be cut from leather or another material and then joined together by sewing to form the desired 3D shoe design.***
11.	Why is CAD-CAM technology and software used in footwear design?	***When the sample patterns are not well done or the grading has not been made correctly, the final footwear does not fit the last, or shoe machineries don't work properly or the shoe does not fit the foot. That's why a deep knowledge of traditional pattern making technique is required together with the most updated CAD-CAM technologies and software's used for footwear design.***
12.	What are digitizers and scanners?	***Scanners and digitizersare capable of importing 2D and 3D objects into the shoemaster range of CAD/CAM systems.***
13.	What is a shoe last?	***The solid form around which a shoe is molded. The fit of a shoe depends on the design, shape and volume of the shoe last. The shoe last must represent the anatomical information of the foot, at the same time giving the finished shoe a pleasing and fashionable appearance.***
14.	What is grading?	***The size increment will therefore vary according to the size. In the proportional grading system, sizes are increased by a set of proportion in all dimensions to create new sizes. The arithmetic grading system is the easiest and is commonly used for grading shoe lasts in factories. Grading can be carried out, today, by CAD-CAM software system.***
15.	What is piece pattern cutting?	***In sewing and fashion design, a pattern is the template from which the parts of a garment /shoe maker are traced on to fabric/ leather before being cut outand***

		assembled. The process of making or cutting patterns is sometimes condensed to the one-word pattern making, but it can also be written pattern making or pattern cutting.
16.	How many shoe sizing systems are used globally in shoe making?	***There are many shoe sizing systems:*** ***a. English/UK system*** ***b. Paris point / French system*** ***c. Japanese system*** ***d. US system***
17.	What are the restricted grading areas?	***In 2D pattern grading you have to maintain some restriction on greading areas:*** ▪ ***Branding area*** ▪ ***Underlay, folding, lasting allowances*** ▪ ***Set the size range*** ▪ ***Restrict lines*** ▪ ***Hold nodes***
18.	Define pattern engineering points.	***At first create a piece pattern by using create piece comand and add different types of allowances, then add marking where needed, then add holes and then add detailes(notch mark, chamber cut, add text etc).***
19.	Identify different parameters.	***Stick length, bottom length, ball grith, upper grith, bottom width, length increment, girth increment, waist girth, instep girth, toe sping, heel height, etc.***
20.	What is pattern engineering?	***There are three available CAD-CAM solutions for the contemporary pattern engineer.*** ***a. Shoe master classic (2D)*** ***b. Shoe master Power (2D/3D)*** ***c. Shoe master Esprite (2D)*** ***Each of the three systems provides all the tools and functions a pattern engineer would expect to find traditionally. Whether preferring to work in 2D or 3D, engineers can produce a complete set of graded patterns to production standard.***

Assessment Evidence Summary Sheet

EVIDENCE SUMMARY SHEET			
Candidate Name:			
Assessor Name:			
Qualification:	Certificate in Pattern Making, Grading and CAD-CAM Operation		
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	☐	☐
	Practical Demonstration 1 (Set ….)	☐	☐
	Practical Demonstration 2 (Set ….)	☐	☐
	Practical Demonstration 3 (Set ….)	☐	☐
	Oral Questioning (optional)	☐	☐
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			
❑ Issuance of Statement of Achievement *(indicate title of SOA, if full Certificate is not met)*	❑ Submission of additional documents Specify:	❑ Reassessment Specify:	
Did the candidate overall performance meet the required evidence/standard?		☐ Yes ☐ No	
Overall Evaluation:	❑ **Competent** ❑ **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 Pattern Making, Grading and CAD-CAM Operation		
Name of Candidate:		**Date:**	
Name at Assessment Centre:		**Date:**	
Assessment Results:	❑ **Competent** ❑ **Not Yet Competent**		
Recommendation:	❑ Issuance of SOA *(indicate title of SOA, if full certificate is not met)*		
	❑ Submission of additional documents – specify:		
	❑ Reassessment - specify:		
Assessed by: (name and signature)		**Date:**	
Attested by: (name and signature):		**Date**	

Assessment 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-LEA-PAT-01-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		
3. Communicate and co-operate with team members.	13	A1-3 B1-3 C1-3	10, 20
4. Practice problem solving within the team.	13, 15	A1-3 B1-3 C1-3	10, 20
Unit of Competency:	SEIP-LEA-PAT-01-S – Apply occupational health and safety (OHS) in the workplace		
Element	**Assessment Method**		
	Written	**Practical**	**Oral**
1. Identify OHS policies and procedures.	1, 11		2, 1, 8
2. Apply personal health and safety practices.	12, 14	A1-3 B1-3 C1-3	8
3. Report hazards and risks.	9	A1-3 B1-3 C1-3	3, 7
4. Respond to emergencies.	9		18, 19
Unit of Competency:	SEIP-LEA-PAT-01-O – Understand pattern making and CAD-CAM operations		
Element	**Assessment Method**		
	Written	**Practical**	**Oral**
1. Describe concept of pattern making.	16		10

2. Identify basic requirements for CAD-CAM operations.		A1-3 B1-3 C1-3	11
3. Identify devices and harwadre required for CAD-CAM operations.		A1-3 B1-3 C1-3	

Unit of Competency:	SEIP-LEA-PAT-02-O – Carry out manual pattern making operations

Element	**Assessment Method**		
	Written	**Practical**	**Oral**
1. Prepare a mean forme.	5, 10	A1, B1, C2	4
2. Develop standard/shell.	10	A2, B2, C1	7
3. Cut pattern from standard.		A1, B1, C1	5

Unit of Competency:	SEIP-LEA-PAT-03-O – Prepare a standard/shell using 3D software

Element	**Assessment Method**		
	Written	**Practical**	**Oral**
1. Digitise last.	5, 7	C2	12
2. Develop a standard/shell.		A2, B2, C1	13

Unit of Competency:	SEIP-LEA-PAT-04-O – Perform computer aided pattern making operations using 2D software

Element	**Assessment Method**		
	Written	**Practical**	**Oral**
1. Digitise a 2D standard/shell.	18	A2, B2	
2. Create new style lines.		A2, B2, C2	
3. Cut piece patterns.	8	A2, B2, C2	

Unit of Competency:	SEIP-LEA-PAT-05-O – Carry out pattern grading

Element	**Assessment Method**		
	Written	**Practical**	**Oral**
1. Identify grading parameters.	6	A3, B3, C3	14

2. Carry out grading.	20	A3, B3, C3	14
3. Check and cut graded patterns.	20	A3, B3, C3	