



Skills for Employment Investment Program (SEIP)

ASSESSMENT TOOL FOR DUCT FITTING FOR AIR-CONDITIONING AND VENTILATION (*CONSTRUCTION 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 **Duct Fitting for Air-conditioning and Ventilation**, 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-CON-DFA-01-G	Carry out workplace interaction
SEIP-CON-DFA-02-G	Operate in a team environment
SEIP-CON-DFA-03-G	Carry out calculations and measurements
Sector-specific Competencies	
SEIP-CON-DFA-01-S	Apply occupational health and safety (OHS) practice in the workplace
SEIP-CON-DFA-02-S	Read and interpret sketches and drawings
SEIP-CON-DFA-03-S	Use hand and power tools
Occupation-specific Competencies	
SEIP-CON-DFA-01-O	Plan and prepare for duct fitting
SEIP-CON-DFA-02-O	Perform access cutting and encroachment work
SEIP-CON-DFA-03-O	Prepare ducting materials
SEIP-CON-DFA-04-O	Install ducting
SEIP-CON-DFA-05-O	Perform leak testing
SEIP-CON-DFA-06-O	Erect and dismantle scaffolding

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 needed to collect the evidence

Occupation:	Duct Fitting for Air-conditioning and Ventilation					
Unit Name:	Carry out workplace interaction					
Unit Code:	SEIP-CON-DFA-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. 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/signages 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:	Duct Fitting for Air-conditioning and Ventilation					
Unit Name:	Operate in a team environment					
Unit Code:	SEIP-CON-DFA-02-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:	Duct Fitting for Air-conditioning and Ventilation				
Unit Name:	Carry out measurements and calculations				
Unit Code:	SEIP-CON-DFA-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. Plan and prepare	1.1. Work instructions are confirmed and applied to the job in hand.	√				
	1.2. Materials to be measured are identified as per job specification.	√				
	1.3. Appropriate measuring device is identified and selected based on materials to be measured.	√				
	1.4. Specifications are obtained and verified from relevant documents.	√				
2. Obtain measurements	2.1. Method of obtaining measurement is selected and applied.	√				
	2.2. Measurements are obtained using appropriate device in accordance with job requirement.	√				
	2.3. Measurements, including areas and volume, are confirmed and applied.	√				
3. Perform calculations	3.1. Calculations, using basic operations, for determining material requirement are taken.	√				
	3.2. Appropriate formulas for calculating quantities are selected.	√			√	
	3.3. Quantities are estimated from the calculations taken.	√				
	3.4. Material quantities are calculated, confirmed and recorded within tolerances.	√				

Occupation:	Duct Fitting for Air-conditioning and Ventilation					
Unit Name:	Apply occupational health and safety (OHS) practice in the workplace					
Unit Code:	SEIP-CON-DFA-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:	Duct Fitting for Air-conditioning and Ventilation					
Unit Name:	Read and interpret sketches and drawings					
Unit Code:	SEIP-CON-DFA-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 are 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, sketches, drawings and specifications are correctly read and interpreted.			√		

Occupation:	Duct Fitting for Air-conditioning and Ventilation				
Unit Name:	Use hand and power tools				
Unit Code:	SEIP-CON-DFA-03-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 and inspect hand and power tools	1.1.	Appropriate hand and power tools are identified.	√			
	1.2.	Application of hand and power tools is recognised.	√			
	1.3.	Usability of hand and power tools is checked and verified.	√			
2. Use hand tools properly and safely	2.1.	Appropriate hand tools are selected.	√			
	2.2.	Safety precautions are ensured before using hand tools.	√			
	2.3.	Unsafe or faulty hand tools are identified and marked for repair.	√	√		
	2.4.	Measuring tools are checked and calibrated before use.	√			
	2.5.	Use hand tools properly and safely to perform work activity.	√			
3. Operate power tools properly and safely	3.1.	Appropriate power tools are selected.	√			
	3.2.	Power supply outlet and electrical cord are inspected and confirmed safe for use in accordance with established workplace safety requirements.	√			
	3.3.	Safety precautions are ensured before using power tools in accordance with manufacturer's operating specification.	√			
	3.4.	Proper sequence of operation applied for using power tools.	√			
	3.5.	Unsafe or faulty power tools are identified and marked for repair.	√	√		
	3.6.	Operate power tools properly and safely to perform work activity.	√			
4. Clean and maintain hand and power tools	4.1	Dust and foreign matter are removed from hand and power tools in accordance to workplace standards.	√			
	4.2	Condition of hand and power tools is checked after use and reported.	√			
	4.3	Appropriate lubricant is applied after use and prior to storage.	√			
	4.4	Measuring tools are checked and calibrated after use.	√			
	4.5	Defective hand and power tools are inspected and repaired or replaced.	√			

	4.6 Hand and power tools are stored and secured in accordance with workplace requirements.	√		
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Occupation:	Duct Fitting for Air-conditioning and Ventilation			
Unit Name:	Plan and prepare for duct fitting			
Unit Code:	SEIP-CON-DFA-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. Prepare for work	1.1. Work requirements are identified and correctly interpreted ensuring quality requirements are met.	√		√
	1.2. Job instructions are read and clarified where needed.		√	
	1.3. Work tasks are planned and sequenced to ensure safety.	√		
	1.4. Work area is inspected and prepared as per job requirement.	√		
	1.5. Appropriate personal protective equipment (PPE) is identified and selected.	√	√	
	1.6. Tools and equipment are identified, checked for serviceability and selected.	√		
2. Identify system requirements	2.1. Ducting system requirements are identified as per job specification.	√		√
	2.2. Type and quantity of ducting system components are identified and selected.	√	√	
	2.3. Allowances for fabrication and assembly are calculated and determined.	√		
	2.4. Materials are identified, ordered and collected as per procurement process.	√		
	2.5. Components and materials are checked for compliance and quality as per standard operating procedure.	√		
	2.6. Faulty, damaged or unacceptable components and materials are recorded and returned.	√		

Occupation:	Duct Fitting for Air-conditioning and Ventilation			
Unit Name:	Perform access cutting and encroachment work			
Unit Code:	SEIP-CON-DFA-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. Inspect encroachment area	1.1. Building drawings and duct fitting plan are identified and interpreted.	√		√	
	1.2. Lines of encroachment are identified, inspected and clearly marked.	√			
	1.3. Possible obstructions and limitations along line of encroachment are identified and work adjusted accordingly.	√			
2. Collect tools, equipment and materials	2.1. Tools and equipment are identified, collected and checked for serviceability as per job requirement.	√			
	2.2. Appropriate personal protective equipment (PPE) as per job requirement is collected.	√			
	2.3. Materials are identified, ordered and collected as per job requirement.	√			
3. Carry out access cutting	3.1. Layout for access and encroachment work is completed.	√			
	3.2. Concrete wall and floor are cut to create pipe/conduit access in accordance with plans and specifications.	√			
	3.3. Completed work is inspected and checked to ensure quality and compliance with job specifications.	√			
4. Clean and maintain work area	4.1. Tools and equipment are cleaned, maintained and stored.	√			
	4.2. Work area is cleaned and maintained, and waste materials disposed of.	√			
	4.3. Defective or faulty tools and equipment are recorded and reported.	√			

Occupation:	Duct Fitting for Air-conditioning and Ventilation				
Unit Name:	Prepare ducting materials				
Unit Code:	SEIP-CON-DFA-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)		
1. Collect tools, equipment and materials	1.1. Tools and equipment are identified, collected and checked for serviceability as per job requirement.	√			
	1.2. Appropriate personal protective equipment (PPE) as per job requirement is collected.	√			

	1.3. Ducting materials are identified, ordered and collected as per job requirement.	√		
2. Prepare ducting materials for installation	2.1. Ducting materials are checked and inspected in ensure quality and compliance with job requirement.	√		
	2.2. Ducting materials are prepared for installation as per standard operating procedure.	√		

Occupation:	Duct Fitting for Air-conditioning and Ventilation					
Unit Name:	Install ducting					
Unit Code:	SEIP-CON-DFA-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. Collect tools, equipment and materials	1.1. Tools and equipment are identified, collected and checked for serviceability as per job requirement.	√				
	1.2. Appropriate personal protective equipment (PPE) as per job requirement is collected.	√				
	1.3. Materials are identified, ordered and collected as per job requirement.	√				
2. Install ducting	2.1. Ducting for air conditioning and ventilation system is set-out as per plans and specifications.	√				
	2.2. Ducting supports and fixings are positioned correctly as per manufacturer specifications.	√				
	2.3. Ducting is installed as per plans and specifications.	√				
	2.4. Circumferential joints are assembled and sealed.	√				
	2.5. Insulation materials are fitted and fixed.	√				
	2.6. Diffusers and terminal devices are installed.	√	√			
	2.7. Sustainability principles are applied throughout installation.	√	√			
3. Clean and maintain work area	3.1. Tools and equipment are cleaned, maintained and stored.	√				
	3.2. Work area is cleaned and maintained, and waste materials disposed of.	√				
	3.3. Defective or faulty tools and equipment is recorded and reported	√				

Occupation:	Duct Fitting for Air-conditioning and Ventilation
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Unit Name:	Perform leak testing					
Unit Code:	SEIP-CON-DFA-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. Prepare for leak testing	1.1.	Work tasks are identified.	√			
	1.2.	Maximum test pressure is determined.	√			
	1.3.	Leak testing method is identified.	√			
	1.4.	Duct fitting connection integrity is checked and inspected.	√			
	1.5.	Devices, fixtures, fittings and components are isolated and shut-off.	√			
2. Collect tools, equipment and materials	2.1.	Tools and equipment are identified, collected and checked for serviceability as per job requirement.	√			
	2.2.	Appropriate personal protective equipment (PPE) as per job requirement is collected.	√			
	2.3.	Materials are identified, ordered and collected as per job requirement.	√			
3. Test ducting system	3.1.	Test requirements are determined from ducting plans and specifications.	√		√	
	3.2.	Testing equipment is identified and selected for required tests.	√			
	3.3.	Ducting system is tested under maximum test pressure.	√			
	3.4.	Leak tests are carried out and source of leaks are identified.	√			
	3.5.	Identified leak or leaks are repaired or replaced, as needed.	√		√	
	3.6.	Testing results recorded in appropriate format.	√			
4. Clean and maintain work area	4.1	Tools and equipment are cleaned, maintained and stored.	√			
	4.2	Work area is cleaned and maintained, and waste materials disposed of.	√			
	4.3	Defective or faulty tools and equipment is recorded and reported.	√			

Occupation:	Duct Fitting for Air-conditioning and Ventilation
Unit Name:	Erect and dismantle scaffolding

Unit Code:	SEIP-CON-DFA-06-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. Collect tools, equipment and materials	1.1.	Tools and equipment are identified, collected and checked for serviceability as per job requirement.	√			
	1.2.	Appropriate personal protective equipment (PPE) as per job requirement is collected.	√			
	1.3.	Materials are identified, ordered and collected as per job requirement.	√			
2. Erect scaffolding	2.1.	Job requirement is confirmed and work tasks identified.	√			
	2.2.	Loading on scaffolding and support structures is determined.	√		√	
	2.3.	Site access and egress routes are identified.	√	√		
	2.4.	Scaffolding and components are identified and selected.	√		√	
	2.5.	Sole board/base plate is selected as per manufacturer's specifications.	√			
	2.6.	Scaffolding is set out and erected as per standard operating procedure and manufacturer's specifications.	√			
	2.7.	Static lines are erected and installed.	√			
	2.8.	Lifting device is assembled and erected.	√			
3. Dismantle scaffolding	3.1.	Scaffolding is isolated and appropriately signed and barricaded to ensure safe dismantling.	√		√	
	3.2.	Scaffolding is carefully dismantled using reverse erection procedure.	√	√		
	3.3.	Scaffolding components are inventoried and returned to storage area as per standard operating procedure.	√		√	
4. Clean and maintain work area	4.1	Tools and equipment are cleaned, maintained and stored.	√			
	4.2	Work area is cleaned and maintained, and waste materials disposed of.	√			
	4.3	Defective or faulty tools and equipment is recorded and reported.	√			

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 these units of competency that comprise of the Certificate in Duct Fitting for Air-conditioning and Ventilation. 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.

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:	Duct Fitting for Air-conditioning and Ventilation	
Units of competency:	<p>Generic units:</p> <p>Carry out workplace interaction</p> <p>Operate in a team environment</p> <p>Carry out calculations and measurements</p> <p>Sector-specific units:</p> <p>Apply occupational health and safety (OHS) practice in the workplace</p> <p>Read and interpret sketches and drawings</p> <p>Use hand and power tools</p> <p>Occupation-specific units:</p> <p>Plan and prepare for duct fitting</p> <p>Perform access cutting and encroachment work</p> <p>Prepare ducting materials</p> <p>Install ducting</p> <p>Perform leak testing</p> <p>Erect and dismantle scaffolding</p>	
<p>Instructions:</p> <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		
▪ Select appropriate method to carry out calculation requirements		
▪ Complete calculations using appropriate tools and instruments		
▪ Read and understand OHS policies and safe operating procedures		
▪ Identify and follow safety signs and symbols		

▪ Determine emergency response, evacuation procedures and other contingency measures		
▪ Follow and practice OHS policies and procedures		
▪ Select and use personal protective equipment (PPE)		
▪ Maintain personal hygiene		
▪ Identify, assess and control hazards and risks		
▪ Report incidents arising from hazards and risks to authority		
▪ Implements corrective actions to correct unsafe conditions in the workplace		
▪ Respond to alarms and warning devices		
▪ Implement emergency response plans and procedures		
▪ Apply first aid procedures during emergency situations		
▪ Read and understand workplace documents		
▪ Interpret visual information		
▪ Prepare simple routine workplace documents using key words, phrases, simple sentences and visual aids		
▪ Write key information in the appropriate places in standard forms		
▪ Demonstrate active listening		
▪ Perform conversation in English with peers, customers and management to the required workplace standard		
▪ Identify team goals and collaborative decision-making processes		
▪ Identify roles and responsibilities of team members		
▪ Identify relationship within team and with other workers are identified		
▪ Use effective interpersonal skills to interact with team members and to contribute to activities and objectives		
▪ Use formal and informal forms of communication effectively to support team achievement		
▪ Respect and value diversity in character in team functioning		
▪ Understand and value views and opinions of other team members		
▪ Use workplace terminology correctly to assist communication		
▪ Identify and clarify with team the duties, responsibilities, authorities, objectives and task requirements		
▪ Perform tasks in accordance with organizational and team requirements, specifications and workplace procedures		
▪ Make team member's support with other members to ensure team achieves goals, awareness and requirements		
▪ Follow agreed reporting lines using standard operating procedure		

▪ Identify current and potential problems faced by team		
▪ Identify a solution to the problem		
▪ Solve problems effectively and the outcome of the implemented solution is evaluated		
• Sketch basic shapes and objects		
• Demonstrate ability to properly use manual drafting equipment		
• Create geometrical shapes utilizing manual drafting equipment		
• Demonstrate manual lettering in accordance with workplace standard.		
▪ Identify and accessed appropriate manuals		
▪ Check version and date of the manual to ensure up-to-date specifications, tools, equipment, materials and procedures		
▪ Recognize correctly relevant drawings and specifications from manuals, designs and plans		
▪ Recognize terms and abbreviations		
▪ Interpret signs and symbols		
▪ Collect and pack manuals, designs and plans		
▪ Store manuals, designs and plans to prevent damage, and ready access and updating of information when required		
▪ Select appropriate tools		
▪ Determine application of tools to job requirements		
▪ Check and verify usability of tools		
▪ Prepare hand and power tools		
▪ Identify sources of power supply for power tools		
▪ Use appropriate hand tool for the job		
▪ Apply proper and safe use/operation in the different types of hand tools		
▪ Observe safety precautions when using hand tools		
▪ Identify and mark unsafe or faulty tools for repair		
▪ Inspect and confirm safe for use power supply outlet and electrical cord in accordance with established workplace safety requirements		
▪ Apply proper sequence of operation in using power tools to produce results		
▪ Use power tools safely in accordance to manufacturer's specification		
▪ Remove dust and foreign matters from power tools and instrument in accordance to workplace standard		
▪ Check condition of tools after use		

▪ Apply appropriate lubricant after use and prior to storage		
▪ Check and calibrate measuring tools		
▪ Inspect and correct defective tools, instruments, power tools and accessories		
▪ Select appropriate measuring device for the job		
▪ Determine application of tools to job requirements		
▪ Check and verify usability of tools		
▪ Prepare measuring device		
▪ Obtain measurements using appropriate measuring device		
▪ Identify systems of measurements and converted where necessary		
▪ Confirm and record results		
▪ Execute simple calculations involving four basic mathematical operations		
▪ Use other operations to complete tasks in construction works		
▪ Select appropriate formulas for calculating quantities of materials		
▪ Perform and verify calculations		
▪ Calculate material quantities		
▪ Interpret and communicate results to authority		
▪ Check condition of instrument		
▪ Apply appropriate lubricant after use and prior to storage		
▪ Check and calibrate measuring instruments		
▪ Store instrument in accordance to workplace procedure		
▪ Receive job assignment from immediate superior based on work priority		
▪ Receive details about job assignment through appropriate means in accordance with company practices		
▪ Recognize symbols and abbreviations for steel work based on applicable construction drawings/plans.		
▪ Interpret detailed work specifications in accordance with applicable construction drawings and plans		
▪ Identify ducting materials from design specifications		
▪ Arrange work area in accordance with work requirements and OHS guidelines and procedures		
▪ Remove unused/excess materials, debris and other obstacles in accordance with workplace and safety requirements		
▪ Identify and gather hand tools and equipment in accordance with workplace procedures		

▪ Check hand tools, equipment and PPEs in accordance with manufacturer's guidelines		
▪ Maintain and store hand tools and equipment in compliance with OHS requirements		
▪ Identify and interpret plan and specification for work requirements		
▪ Read and clarify job instructions where needed		
▪ Inspect and prepare work area as per job requirement		
▪ Identify and employ signage and barricade as per requirements		
▪ Identify and select personal protective equipment (PPE) as needed		
▪ Identify, check tools and equipment for serviceability		
▪ Identify required materials as per job requirements		
▪ Review job requirement to ensure that tasks to be performed timely, safe and efficient manner		
▪ Complete and submit compliance documentation to appropriate authority		
▪ Identify and interpret work requirements to ensure quality requirements		
▪ Read and clarify job instructions if necessary		
▪ Plan and sequence work tasks to ensure safety		
▪ Inspect and prepare work area as per job requirement		
▪ Identify ducting system requirements as per job specification		
▪ Identify and select type and quantity of ducting system components		
▪ Calculate and determine allowances for fabrication and assembly		
▪ Check components and materials for compliance and quality as per standard operating procedure		
▪ Record and return faulty, damaged or unacceptable components and materials		
▪ Identify and interpret building drawings and duct fitting plan		
▪ Identify, inspect and mark lines of encroachment		
▪ Identify and adjust obstructions and limitations along line of encroachment		
▪ Complete layout for access and encroachment work		
▪ Cut concrete wall and floor to create pipe/conduit access in accordance with plans and specifications		
▪ Inspect and check completed work to ensure quality and compliance with job specifications		
▪ Clean, maintain and store tools and equipment		
▪ Clean and maintain work area and disposed of waste materials		

▪ Record and report defective or faulty tools and equipment		
▪ Identify, collect and check tools and equipment for serviceability as per job requirement		
▪ Collect appropriate personal protective equipment (PPE) as per job requirement		
▪ Identify, order and collect ducting materials as per job requirement		
▪ Check and inspect ducting materials to ensure quality and compliance with job requirement		
▪ Prepare ducting materials for installation as per standard operating procedure		
▪ Set-out ducting for air conditioning and ventilation system as per plans and specifications		
▪ Position ducting supports and fixings as per manufacturer specifications		
▪ Install ducting as per plans and specifications		
▪ Assemble and seal circumferential joints		
▪ Fit and fix insulation materials		
▪ Install diffusers and terminal devices		
▪ Apply sustainability principles throughout installation		
▪ Clean, maintain and store tools and equipment		
▪ Clean and maintain work area and disposed of waste materials		
▪ Record and report defective or faulty tools and equipment		
▪ Identify work tasks for leak testing		
▪ Determine maximum test pressure		
▪ Identify proper leak testing method		
▪ Check and inspect duct fitting connection integrity		
▪ Isolate and shut-off devices, fixtures, fittings and components		
▪ Identify, collect and check tools and equipment for leak testing		
▪ Collect personal protective equipment (PPE) for leak testing		
▪ Identify, order and collect leak testing materials are as per job requirement		
▪ Determine test requirements from ducting plans and specifications		
▪ Identify and select testing equipment for required leak tests		
▪ Test ducting system under maximum test pressure		
▪ Carry out leak tests and identify source of leaks		
▪ Repair or replace identified leak or leaks, if necessary		

▪ Record testing results in supplied format		
▪ Clean, maintain and store leak testing tools and equipment		
▪ Clean and maintain work area and disposed of waste materials		
▪ Record and report defective or faulty leak testing tools and equipment		
▪ Identify, collect and check tools and equipment for erection and dismantling of scaffolding work		
▪ Collect personal protective equipment (PPE) for erection and dismantling of scaffolding work		
▪ Identify, order and collect scaffolding materials as per job requirement		
▪ Confirm job requirement and identify work tasks		
▪ Determine loading on scaffolding and support structures		
▪ Identify site access and egress routes for scaffolding		
▪ Identify and select scaffolding and components		
▪ Select sole board/base plate as per manufacturer's specifications		
▪ Set out and erect scaffolding as per standard operating procedure and manufacturer's specifications		
▪ Erect and install static lines		
▪ Assemble and erect lifting device		
▪ Isolate scaffolding and sign & barricade to ensure safe dismantling		
▪ Dismantle scaffolding using reverse erection procedure		
▪ Inventor scaffolding components and return to storage area as per standard operating procedure		
▪ Clean, maintain and store tools and equipment used in scaffolding		
▪ Clean and maintain work area and disposed of waste materials		
▪ Record and report defective or faulty tools and equipment		
I agree to undertake assessment in the knowledge that information gathered will only be used for 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 – Duct Fitting for Air-Conditioning and Ventilation

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 Duct Fitting for Air-Conditioning and Ventilation, you must demonstrate competence in the following units, as established in the assessment agreement:

CODE	UNIT OF COMPETENCY
Generic Competencies	
SEIP-CON-DFA-01-G	Carry out workplace interaction
SEIP-CON-DFA-02-G	Operate in a team environment
SEIP-CON-DFA-03-G	Carry out calculations and measurements
Sector-specific Competencies	
SEIP-CON-DFA-01-S	Apply occupational health and safety (OHS) practice in the workplace
SEIP-CON-DFA-02-S	Read and interpret sketches and drawings
SEIP-CON-DFA-03-S	Use hand and power tools
Occupation-specific Competencies	
SEIP-CON-DFA-01-O	Plan and prepare for duct fitting
SEIP-CON-DFA-02-O	Perform access cutting and encroachment work
SEIP-CON-DFA-03-O	Prepare ducting materials
SEIP-CON-DFA-04-O	Install ducting
SEIP-CON-DFA-05-O	Perform leak testing
SEIP-CON-DFA-06-O	Erect and dismantle scaffolding

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

Assessment Agreement	
Occupation:	Duct Fitting for Air-Conditioning and Ventilation
Assessment Centre:	
Candidate Name:	
Assessor Name:	
Unit of Competency	
Generic Competencies	
SEIP-CON-DFA-01-G	Carry out workplace interaction
SEIP-CON-DFA-02-G	Operate in a team environment
SEIP-CON-DFA-03-G	Carry out calculations and measurements
Sector-specific Competencies	
SEIP-CON-DFA-01-S	Apply occupational health and safety (OHS) practice in the workplace
SEIP-CON-DFA-02-S	Read and interpret sketches and drawings
SEIP-CON-DFA-03-S	Use hand and power tools
Occupation-specific Competencies	
SEIP-CON-DFA-01-O	Plan and prepare for duct fitting
SEIP-CON-DFA-02-O	Perform access cutting and encroachment work
SEIP-CON-DFA-03-O	Prepare ducting materials
SEIP-CON-DFA-04-O	Install ducting
SEIP-CON-DFA-05-O	Perform leak testing
SEIP-CON-DFA-06-O	Erect and dismantle scaffolding
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, and 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 Duct Fitting for Air-Conditioning and Ventilation, will result in the candidate being 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 Signature:

Date:

Assessor Signature:

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:
 - Erection and dismantling of timber scaffolding
 - Perform access cutting and encroachment work
 - Set B:
 - Erection and dismantling of steel scaffolding
 - Installation of ducting
 - Set C:
 - Erection and dismantling of bamboo scaffolding
 - Perform leak testing
 - provide the candidate with the copy of the specific instruction to candidate
 - allow each practical demonstration to be performed within one (1) hour 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 (contained in one set):
 - (i) Practical Demonstration 1 (2 hours)
 - (ii) 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:
- Set A – Practical Demonstration 1 page 40-41
 - Set A – Practical Demonstration 2: page 46-47
 - Set B – Practical Demonstration 1: page 52-53
 - Set B – Practical Demonstration 2: page 58-59
 - Set C – Practical Demonstration 1: page 64-65
 - Set C – Practical Demonstration 2: page 70-71

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 Duct Fitting for Air-Conditioning and Ventilation. 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 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:
 - Erection and dismantling of timber scaffolding
 - Perform access cutting and encroachment work
 - Set B:
 - Erection and dismantling of steel scaffolding
 - Installation of ducting
 - Set C:
 - Erection and dismantling of bamboo scaffolding
 - Perform leak testing
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 Duct Fitting for Air-Conditioning and Ventilation.
 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 Duct Fitting for Air-Conditioning and Ventilation
Unit of Competency	
Generic Competencies	
SEIP-CON-DFA-01-G	Carry out workplace interaction
SEIP-CON-DFA-02-G	Operate in a team environment
SEIP-CON-DFA-03-G	Carry out calculations and measurements
Sector-specific Competencies	
SEIP-CON-DFA-01-S	Apply occupational health and safety (OHS) practice in the workplace
SEIP-CON-DFA-02-S	Read and interpret sketches and drawings
SEIP-CON-DFA-03-S	Use hand and power tools
Occupation-specific Competencies	
SEIP-CON-DFA-01-O	Plan and prepare for duct fitting
SEIP-CON-DFA-02-O	Perform access cutting and encroachment work
SEIP-CON-DFA-03-O	Prepare ducting materials
SEIP-CON-DFA-04-O	Install ducting
SEIP-CON-DFA-05-O	Perform leak testing
SEIP-CON-DFA-06-O	Erect and dismantle scaffolding
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 Duct Fitting for Air-Conditioning and Ventilation ▪ 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 500 is 125?	a. 15% b. 25% c. 40% d. 50%
2.	What are the possible obstructions and limitations along the line of encroachment generally found in a ducting system?	a. Columns b. Beams c. Doors d. Cabinets e. All of the above
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 type of hacksaw blade consisting of 14 TPI it is suitable for cutting?	a. Machine steel b. Cast iron c. Bronze d. Conduit
5.	Which line is used to show the visible shape of an object?	a. Chain b. Object c. Section d. Extension
6.	In scaffolding, which is not include as component?	a. Bracing b. Lock pins c. Allen key d. Ladder
7.	Which is/are the component(s) used for a ducting system?	a. Diffusers b. Insulation c. Joints d. Terminal devices e. All of the above

8.	Which one is not a component of a building structure?	a. Foundation b. Scaffolding c. Wall d. Stairs
9.	The following are examples of “struck-by” hazards in the construction sector except for:	a. Heavy equipment and vehicles, like trucks and cranes b. Falling or flying objects, like tools and flying particles c. The microorganism found in the hands of the workers d. Concrete or masonry walls that are being constructed
10.	Ways to build relationships within a team include?	a. Discuss team member work styles b. Define “team personality” c. Discuss individual goals, hopes, concerns d. All of the above

True or False Quiz

Tick (√) the box corresponding to the correct answer.

11.	Excessive noise can cause permanent hearing loss.	True <input type="checkbox"/> False <input type="checkbox"/>
12.	Safety vests are used to increase the visibility of a construction worker.	True <input type="checkbox"/> False <input type="checkbox"/>
13.	A humidifier is used to reduce the humidity of air.	True <input type="checkbox"/> False <input type="checkbox"/>
14.	High ultraviolet ray is used to disinfect air.	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.

15.	_____ is used on construction sites to protect the head from injury due to falling objects.
16.	_____ is used to protect the user working at heights.

Short Answer

Write a short answer in the space provided (not to exceed more than approximately twenty-five (25) words).

17.	What are the side effects of an air handling unit?	
-----	--	--

18.	What are types of levelling devices used in construction?	
19.	Why is a safety net used in construction?	
20.	What are the types of lifting devices used in construction?	
21.	How can you check the squareness of a duct?	
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 500 is 125?	<ul style="list-style-type: none"> a. 15% b. 25% c. 40% d. 50%
2.	What are the possible obstructions and limitations along the line of encroachment generally found in a ducting system?	<ul style="list-style-type: none"> a. Columns b. Beams c. Doors d. Cabinets e. All of the above
3.	What are the advantages of a self-directed team?	<ul style="list-style-type: none"> 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 type of hacksaw blade consisting of 14 TPI it is suitable for cutting?	<ul style="list-style-type: none"> a. Machine steel b. Cast iron c. Bronze d. Conduit
5.	Which line is used to show the visible shape of an object?	<ul style="list-style-type: none"> a. Bracing b. Lock pins c. Allen key d. Ladder
6.	In scaffolding, which is not include as component?	<ul style="list-style-type: none"> a. Diffusers b. Insulation c. Joints d. Terminal devices e. All of the above
7.	Which is/are the component(s) used for a ducting system?	<ul style="list-style-type: none"> a. Foundation b. Scaffolding c. Wall d. Stairs
8.	Which one is not a component of a building structure?	<ul style="list-style-type: none"> a. Heavy equipment and vehicles, like trucks and cranes

		<p>b. Falling or flying objects, like tools and flying particles</p> <p>c. The microorganism found in the hands of the workers</p> <p>d. Concrete or masonry walls that are being constructed</p>
9.	The following are examples of “struck-by” hazards in the construction sector except for:	<p>a. Discuss team member work styles</p> <p>b. Define “team personality”</p> <p>c. Discuss individual goals, hopes, concerns</p> <p>d. All of the above</p>
10.	Ways to build relationships within a team include?	<p>a. Discuss team member work styles</p> <p>b. Define “team personality”</p> <p>c. Discuss individual goals, hopes, concerns</p> <p>d. All of the above</p>
True or False Quiz		
11.	Excessive noise can cause permanent hearing loss.	True <input checked="" type="checkbox"/> False <input type="checkbox"/>
12.	Safety vests are used to increase the visibility of a construction worker.	True <input checked="" type="checkbox"/> False <input type="checkbox"/>
13.	A humidifier is used to reduce the humidity of air.	True <input type="checkbox"/> False <input checked="" type="checkbox"/>
14.	High ultraviolet ray is used to disinfect air.	True <input checked="" type="checkbox"/> False <input type="checkbox"/>
Fill in the Missing Blanks		
15.	Safety helmet is used on construction sites to protect the head from injury due to falling objects.	
16.	Safety belt or harness is used to protect the user working at heights.	
Short Answer		
17.	What are the side effects of an air handling unit?	<ul style="list-style-type: none"> ▪ Vibration ▪ Noise
18.	What are types of levelling devices used in construction?	<ul style="list-style-type: none"> ▪ Water ▪ Spirit ▪ Digital ▪ Optical ▪ Automatic ▪ Laser
19.	Why is a safety net used in construction?	To protect people from injury and for arresting falling or flying objects for the safety of people beyond or below the net.

20.	What are the types of lifting devices used in construction?	<ul style="list-style-type: none"> ▪ Forklift ▪ Hoist ▪ Pulley ▪ Derrick ▪ Truck crane ▪ Tower crane
21.	How can you check the squareness of a duct?	<ul style="list-style-type: none"> ▪ Measuring the angles ▪ Diagonal measurements

Set A: Practical Demonstration 1

PRACTICAL DEMONSTRATION 1	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation
Task:	Erect and dismantle scaffolding using timber
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 Duct Fitting for Air-conditioning and Ventilation ▪ 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. Visit worksite and make plan to erect scaffolding using timber. 3. Inspect worksite for hazards and implement appropriate controls (if necessary). 4. Identify and collect appropriate PPE. 5. Identify, collect and inspect all necessary tools and equipment required to perform task. 6. Calculate quantity of scaffolding components and materials required. 7. Collect scaffolding components and materials as per job specification. 8. Ensure signage and barricades are put in place as required. 9. Check, select and cut scaffolding components as per job specification. 10. Set-out and erect scaffolding components as per job specification. 11. Erect and install static line as per standard operating procedure and OHS requirements. 12. Assemble and erect lifting device. 13. Check alignment and stability of erected scaffolding and correct (if required). 14. Dismantle scaffolding using reverse erection procedure. 15. Check, clean and store tools, equipment and materials. 16. Record and report any defective or faulty tools, equipment or materials. 17. Clean and maintain work area. 18. Dispose of waste materials. 	

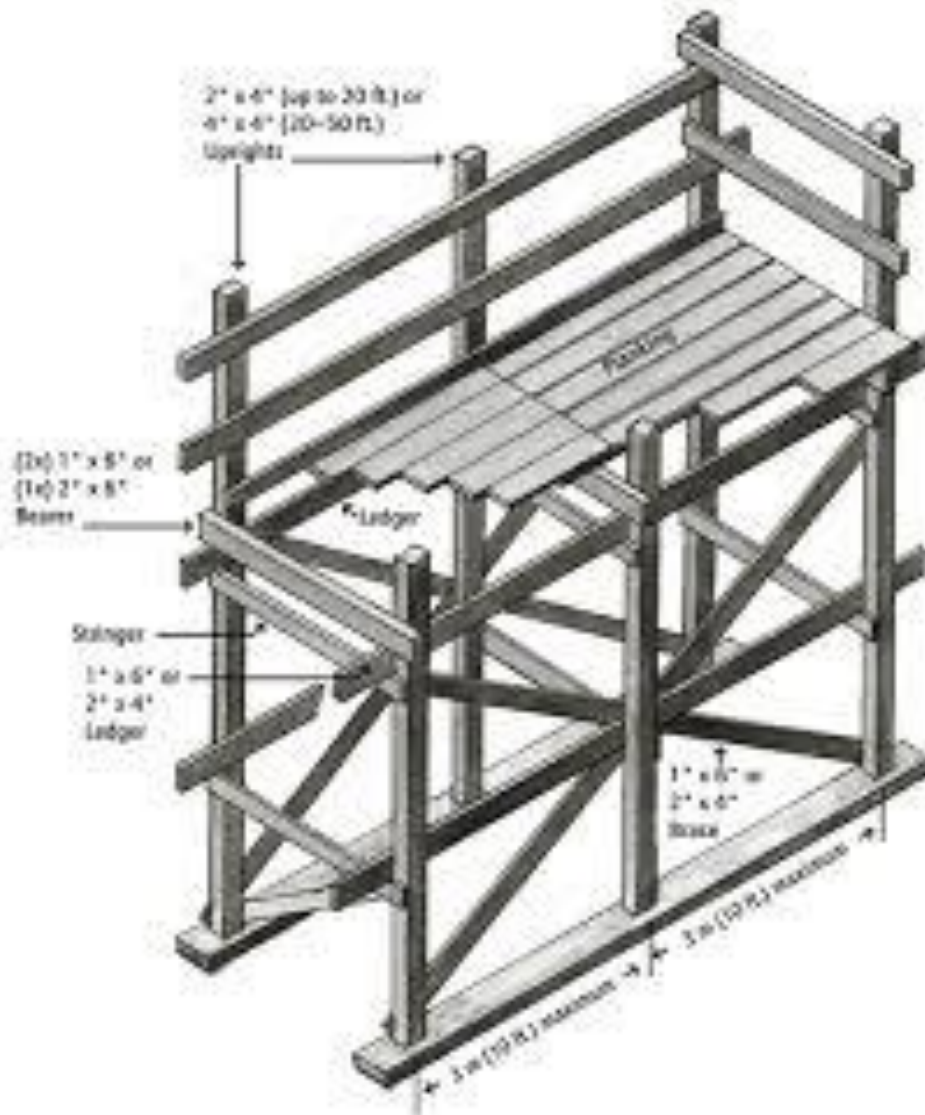
Drawing, Plan, Diagram or Sketch:

The illustration below is the blueprint of the task to be performed. During the erection and dismantling of timber scaffolding, you are to ensure:

- alignment
- spacing of components
- height
- loading
- stability

Length of scaffolding should not be less than 2.5m.

Width of scaffolding should not be less than 1m.



Resources Required:

Tools:	Measuring tape (15m) Steel rule Cold chisel Hammer Combination pliers Hacksaw Hand saw Steel wire twisting tool Spirit level Plumb bob
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	String Pencil Crowbar
Equipment:	Portable drilling machine Power saw Safety net Static line Ladder
Machinery:	N/A
Materials:	Wooden boards Squared timber Various wooden wedges Nails of different sizes Bamboo Ropes and ties
PPE:	Safety helmet Safety glasses Ear plugs Mask Apron/vest Hand gloves Safety shoes

Set A: Practical Demonstration 1 – Observation Checklist

PRACTICAL DEMONSTRATION 1 – OBSERVATION CHECKLIST		
Candidate Name:		
Assessor Name:		
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation	
Task:	Erect and dismantle scaffolding using timber	
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 tick (√) to show if evidence has been demonstrated competently	
	Yes	No
Workplace codes of conduct are interpreted as per organisational guidelines.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate manuals for work activity are identified and collected.	<input type="checkbox"/>	<input type="checkbox"/>
Information and specifications in the manuals are interpreted and applied.	<input type="checkbox"/>	<input type="checkbox"/>
Workplace documents are interpreted correctly.	<input type="checkbox"/>	<input type="checkbox"/>
Relevant sketches and drawings are identified for job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Key terms and abbreviations are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Schedules, dimensions, sketches, drawings and specifications are correctly read and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Visual information/symbols/signages are understood correctly and followed.	<input type="checkbox"/>	<input type="checkbox"/>
Specific and relevant information are accessed from appropriate sources.	<input type="checkbox"/>	<input type="checkbox"/>
Identified and followed safety signs and symbols.	<input type="checkbox"/>	<input type="checkbox"/>
OHS policies and procedures are applied in the workplace.	<input type="checkbox"/>	<input type="checkbox"/>

Identified and selected appropriate personal protective equipment (PPE).	<input type="checkbox"/>	<input type="checkbox"/>
Common safety issues are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Hazards and risks are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Materials to be measured are identified as per job specification.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate measuring method and device is identified and selected based on materials to be measured.	<input type="checkbox"/>	<input type="checkbox"/>
Measurements are obtained, calculated and confirmed using appropriate device in accordance with job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Material quantities are calculated, confirmed and recorded within tolerances.	<input type="checkbox"/>	<input type="checkbox"/>
Selected appropriate hand and power tools.	<input type="checkbox"/>	<input type="checkbox"/>
Usability of hand and power tools is checked and verified.	<input type="checkbox"/>	<input type="checkbox"/>
Unsafe or faulty hand tools are identified and marked for repair.	<input type="checkbox"/>	<input type="checkbox"/>
Applied proper and safe use/operation of hand and power tools in accordance to manufacturer's operating specification.	<input type="checkbox"/>	<input type="checkbox"/>
Determined loading on scaffolding and support structures.	<input type="checkbox"/>	<input type="checkbox"/>
Identified site access and egress routes.	<input type="checkbox"/>	<input type="checkbox"/>
Identified and selected scaffolding and components.	<input type="checkbox"/>	<input type="checkbox"/>
Selected sole board/base plate as per manufacturer's specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Set out and erected scaffolding as per standard operating procedure and manufacturer's specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Erected and installed static lines.	<input type="checkbox"/>	<input type="checkbox"/>
Assembled and erected lifting devices.	<input type="checkbox"/>	<input type="checkbox"/>
Isolated and appropriately signed and barricaded scaffolding to ensure safe dismantling.	<input type="checkbox"/>	<input type="checkbox"/>
Dismantled scaffolding using reverse erection procedure.	<input type="checkbox"/>	<input type="checkbox"/>
Inventoried and returned scaffolding components to storage area as per standard operating procedure.	<input type="checkbox"/>	<input type="checkbox"/>
Removed dust and foreign matters from hand and power tools in accordance to workplace standard.	<input type="checkbox"/>	<input type="checkbox"/>
Checked condition of hand and power tools after use.	<input type="checkbox"/>	<input type="checkbox"/>
Applied appropriate lubricant after use and prior to storage.	<input type="checkbox"/>	<input type="checkbox"/>
Checked and calibrated measuring tools.	<input type="checkbox"/>	<input type="checkbox"/>
Tools and equipment are cleaned, maintained and stored.	<input type="checkbox"/>	<input type="checkbox"/>
Recorded and reported defective or faulty tools and equipment.	<input type="checkbox"/>	<input type="checkbox"/>
Cleaned and maintained work area, and disposed of waste materials.	<input type="checkbox"/>	<input type="checkbox"/>
Roles and responsibilities of team members are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>

Reporting relationships are interpreted within team and external to team.	<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"/>
Appropriate medium is used to transfer information and ideas.	<input type="checkbox"/>	<input type="checkbox"/>
Active participation is ensured, opinions are expressed and heard.	<input type="checkbox"/>	<input type="checkbox"/>
Inputs are provided and interpreted in line with the meeting purpose.	<input type="checkbox"/>	<input type="checkbox"/>
Inappropriate and conflicting situations are avoided.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate lines of communication are maintained with supervisors and colleagues.	<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:

Set A: Practical Demonstration 2

PRACTICAL DEMONSTRATION 2	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation
Task:	Perform access cutting and encroachment works
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 Duct Fitting for Air-conditioning and Ventilation ▪ 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 and other workplace documents. 2. Read and identify building drawings and duct fitting plan. 3. Visit worksite and inspect for access cutting and encroachment works. 4. Identify, inspect and clearly mark lines of encroachment. 5. Identify and work adjust for obstructions and limitations along the line of encroachment. 6. Inspect worksite for hazards and implement appropriate controls (if necessary). 7. Identify and collect appropriate PPE. 8. Identify, collect and inspect all necessary tools and equipment required to perform task. 9. Calculate quantity of materials required. 10. Collect materials as per job specification. 11. Ensure signage and barricades are put in place (as required). 12. Lay out for access and encroachment works. 13. Cut wall and floor to create pipe/conduit access in accordance with job specifications. 14. Inspect and check completed work to ensure quality and compliance with job specifications. 15. Check, clean and store tools, equipment and materials. 16. Record and report any defective or faulty tools, equipment or materials. 17. Clean and maintain work area. 18. Dispose of waste materials. 	

Drawing, Plan, Diagram or Sketch:

The illustration below is the blueprint of the **task** to be performed. During access cutting and encroachment work, you are to ensure:

- size of holes considering tolerance
- measurements

Size of hole (circular) will be 150mm in diameter.

Size of hole (square) will be 150mm x 150mm.

**Resources Required:**

Tools:	Measuring tape (15m) Steel rule Cold chisel Hammer Combination pliers Hacksaw Hand saw Steel wire twisting tool Spirit level Plumb bob String Pencil Crowbar Slide wrench
Equipment:	Portable drilling machine Power saw
Machinery:	N/A
Materials:	Cement Sand Water

	Sealing materials
PPE:	Safety helmet Safety glasses Ear plugs Mask Apron/vest Hand gloves Safety shoes

Set A: Practical Demonstration 2 – Observation Checklist

PRACTICAL DEMONSTRATION 2 – OBSERVATION CHECKLIST		
Candidate Name:		
Assessor Name:		
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation	
Task:	Perform access cutting and encroachment works	
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 tick (√) to show if evidence has been demonstrated competently	
	Yes	No
Workplace codes of conduct are interpreted as per organisational guidelines.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate manuals for work activity are identified and collected.	<input type="checkbox"/>	<input type="checkbox"/>
Information and specifications in the manuals are interpreted and applied.	<input type="checkbox"/>	<input type="checkbox"/>
Workplace documents are interpreted correctly.	<input type="checkbox"/>	<input type="checkbox"/>
Relevant sketches and drawings are identified for job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Key terms and abbreviations are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Schedules, dimensions, sketches, drawings and specifications are correctly read and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Visual information/symbols/signages are understood correctly and followed.	<input type="checkbox"/>	<input type="checkbox"/>
Specific and relevant information are accessed from appropriate sources.	<input type="checkbox"/>	<input type="checkbox"/>
Identified and followed safety signs and symbols.	<input type="checkbox"/>	<input type="checkbox"/>
OHS policies and procedures are applied in the workplace.	<input type="checkbox"/>	<input type="checkbox"/>

Identified and selected appropriate personal protective equipment (PPE).	<input type="checkbox"/>	<input type="checkbox"/>
Common safety issues are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Hazards and risks are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Materials to be measured are identified as per job specification.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate measuring method and device is identified and selected based on materials to be measured.	<input type="checkbox"/>	<input type="checkbox"/>
Measurements are obtained, calculated and confirmed using appropriate device in accordance with job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Material quantities are calculated, confirmed and recorded within tolerances.	<input type="checkbox"/>	<input type="checkbox"/>
Selected appropriate hand and power tools.	<input type="checkbox"/>	<input type="checkbox"/>
Usability of hand and power tools is checked and verified.	<input type="checkbox"/>	<input type="checkbox"/>
Unsafe or faulty hand tools are identified and marked for repair.	<input type="checkbox"/>	<input type="checkbox"/>
Applied proper and safe use/operation of hand and power tools in accordance to manufacturer's operating specification.	<input type="checkbox"/>	<input type="checkbox"/>
Completed the layout for access and encroachment work.	<input type="checkbox"/>	<input type="checkbox"/>
Cut wall and floor to create pipe/conduit access in accordance with plans and specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Inspected and checked the completed work to ensure quality and compliance with job specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Roles and responsibilities of team members are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Reporting relationships are interpreted within team and external to team.	<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"/>
Appropriate medium is used to transfer information and ideas.	<input type="checkbox"/>	<input type="checkbox"/>
Active participation is ensured, opinions are expressed and heard.	<input type="checkbox"/>	<input type="checkbox"/>
Inputs are provided and interpreted in line with the meeting purpose.	<input type="checkbox"/>	<input type="checkbox"/>
Inappropriate and conflicting situations are avoided.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate lines of communication are maintained with supervisors and colleagues.	<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:	

Set B: Practical Demonstration 1

PRACTICAL DEMONSTRATION 1	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation
Task:	Erect and dismantle scaffolding using steel frame
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 Duct Fitting for Air-conditioning and Ventilation ▪ 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"> 19. Identify, read and interpret job specifications, drawings and other workplace documents. 20. Visit worksite and make plan to erect scaffolding using steel frame. 21. Inspect worksite for hazards and implement appropriate controls (if necessary). 22. Identify and collect appropriate PPE. 23. Identify, collect and inspect all necessary tools and equipment required to perform task. 24. Calculate quantity of scaffolding components and materials required. 25. Collect scaffolding components and materials as per job specification. 26. Ensure signage and barricades are put in place as required. 27. Check, select and cut scaffolding components as per job specification. 28. Set-out and erect scaffolding components as per job specification. 29. Erect and install static line as per standard operating procedure and OHS requirements. 30. Assemble and erect lifting device. 31. Check alignment and stability of erected scaffolding and correct (if required). 32. Dismantle scaffolding using reverse erection procedure. 33. Check, clean and store tools, equipment and materials. 34. Record and report any defective or faulty tools, equipment or materials. 35. Clean and maintain work area. 36. Dispose of waste materials. 	

Drawing, Plan, Diagram or Sketch:

The illustration below is the blueprint of the task to be performed. During the erection and dismantling of steel frame scaffolding, you are to ensure:

- alignment
- spacing of components
- height
- loading
- stability

Length of scaffolding should not be less than 2.5m.

Width of scaffolding should not be less than 1m.



Resources Required:

Tools:	Measuring tape (15m) Steel rule Cold chisel Hammer Combination pliers Hacksaw Steel wire twisting tool Spirit level Plumb bob String Pencil Crowbar Slide wrench Pipe wrench
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Equipment:	Portable drilling machine Power saw
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	Safety net Static line Ladder
Machinery:	N/A
Materials:	Steel pipes Fixing clamps Panel/board
PPE:	Safety helmet Safety glasses Ear plugs Mask Apron/vest Hand gloves Safety shoes

Set B: Practical Demonstration 1 – Observation Checklist

PRACTICAL DEMONSTRATION 1 – OBSERVATION CHECKLIST		
Candidate Name:		
Assessor Name:		
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation	
Task:	Erect and dismantle scaffolding using steel frame	
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 tick (√) to show if evidence has been demonstrated competently	
	Yes	No
Workplace codes of conduct are interpreted as per organisational guidelines.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate manuals for work activity are identified and collected.	<input type="checkbox"/>	<input type="checkbox"/>
Information and specifications in the manuals are interpreted and applied.	<input type="checkbox"/>	<input type="checkbox"/>
Workplace documents are interpreted correctly.	<input type="checkbox"/>	<input type="checkbox"/>
Relevant sketches and drawings are identified for job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Key terms and abbreviations are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Schedules, dimensions, sketches, drawings and specifications are correctly read and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Visual information/symbols/signages are understood correctly and followed.	<input type="checkbox"/>	<input type="checkbox"/>
Specific and relevant information are accessed from appropriate sources.	<input type="checkbox"/>	<input type="checkbox"/>
Identified and followed safety signs and symbols.	<input type="checkbox"/>	<input type="checkbox"/>
OHS policies and procedures are applied in the workplace.	<input type="checkbox"/>	<input type="checkbox"/>

Identified and selected appropriate personal protective equipment (PPE).	<input type="checkbox"/>	<input type="checkbox"/>
Common safety issues are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Hazards and risks are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Materials to be measured are identified as per job specification.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate measuring method and device is identified and selected based on materials to be measured.	<input type="checkbox"/>	<input type="checkbox"/>
Measurements are obtained, calculated and confirmed using appropriate device in accordance with job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Material quantities are calculated, confirmed and recorded within tolerances.	<input type="checkbox"/>	<input type="checkbox"/>
Selected appropriate hand and power tools.	<input type="checkbox"/>	<input type="checkbox"/>
Usability of hand and power tools is checked and verified.	<input type="checkbox"/>	<input type="checkbox"/>
Unsafe or faulty hand tools are identified and marked for repair.	<input type="checkbox"/>	<input type="checkbox"/>
Applied proper and safe use/operation of hand and power tools in accordance to manufacturer's operating specification.	<input type="checkbox"/>	<input type="checkbox"/>
Determined loading on scaffolding and support structures.	<input type="checkbox"/>	<input type="checkbox"/>
Identified site access and egress routes.	<input type="checkbox"/>	<input type="checkbox"/>
Identified and selected scaffolding and components.	<input type="checkbox"/>	<input type="checkbox"/>
Selected sole board/base plate as per manufacturer's specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Set out and erected scaffolding as per standard operating procedure and manufacturer's specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Erected and installed static lines.	<input type="checkbox"/>	<input type="checkbox"/>
Assembled and erected lifting devices.	<input type="checkbox"/>	<input type="checkbox"/>
Isolated and appropriately signed and barricaded scaffolding to ensure safe dismantling.	<input type="checkbox"/>	<input type="checkbox"/>
Dismantled scaffolding using reverse erection procedure.	<input type="checkbox"/>	<input type="checkbox"/>
Inventoried and returned scaffolding components to storage area as per standard operating procedure.	<input type="checkbox"/>	<input type="checkbox"/>
Removed dust and foreign matters from hand and power tools in accordance to workplace standard.	<input type="checkbox"/>	<input type="checkbox"/>
Checked condition of hand and power tools after use.	<input type="checkbox"/>	<input type="checkbox"/>
Applied appropriate lubricant after use and prior to storage.	<input type="checkbox"/>	<input type="checkbox"/>
Checked and calibrated measuring tools.	<input type="checkbox"/>	<input type="checkbox"/>
Tools and equipment are cleaned, maintained and stored.	<input type="checkbox"/>	<input type="checkbox"/>
Recorded and reported defective or faulty tools and equipment.	<input type="checkbox"/>	<input type="checkbox"/>
Cleaned and maintained work area, and disposed of waste materials.	<input type="checkbox"/>	<input type="checkbox"/>
Roles and responsibilities of team members are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>

Reporting relationships are interpreted within team and external to team.	<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"/>
Appropriate medium is used to transfer information and ideas.	<input type="checkbox"/>	<input type="checkbox"/>
Active participation is ensured, opinions are expressed and heard.	<input type="checkbox"/>	<input type="checkbox"/>
Inputs are provided and interpreted in line with the meeting purpose.	<input type="checkbox"/>	<input type="checkbox"/>
Inappropriate and conflicting situations are avoided.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate lines of communication are maintained with supervisors and colleagues.	<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:

Set B: Practical Demonstration 2

PRACTICAL DEMONSTRATION 2	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation
Task:	Install ducting
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 Duct Fitting for Air-conditioning and Ventilation ▪ 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. Visit worksite and make plan for installation of ducting. 3. Inspect worksite for hazards and implement appropriate controls (if necessary). 4. Identify and collect appropriate PPE. 5. Identify, collect and inspect all necessary tools and equipment required to perform task. 6. Identify and calculate quantity of ducting materials required. 7. Check and inspect ducting materials to ensure quality and compliance with job specifications. 8. Prepare ducting materials for installation as per standard operating procedure. 9. Ensure signage and barricades are put in place as required. 10. Set-out ducting for air conditioning and ventilation system as per plan and job specifications. 11. Position ducting supports and fixings as per manufacturer specifications. 12. Install ducting as per plan and job specifications. 13. Assemble and seal circumferential joints (as required). 14. Fit and fix insulation materials. 15. Install diffusers and terminal devices. 16. Finish and ensure sustainability principles have been applied. 17. Check, clean and store tools, equipment and materials. 18. Record and report any defective or faulty tools, equipment or materials. 19. Clean and maintain work area. 	

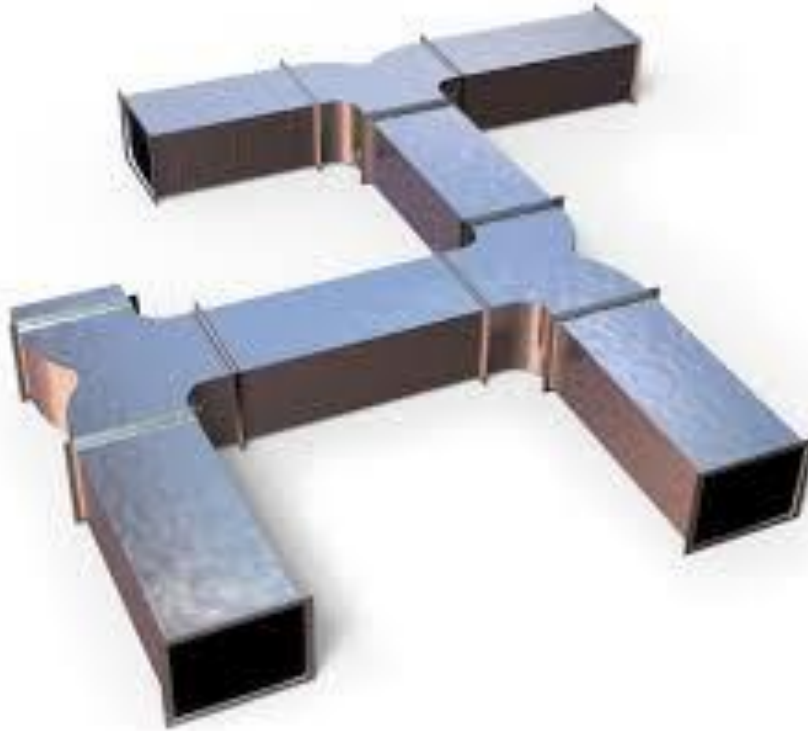
20. Dispose of waste materials.

Drawing, Plan, Diagram or Sketch:

The illustration below is the blueprint of the task to be performed. During installation of ducting for air-conditioning and ventilation, you are to remember that:

- ducts must be sufficiently airtight to ensure economical and quiet performance of the system
- airtightness in ducts cannot, and need not, be absolute (as it must be in a water piping system)
- codes normally require that ducts be reasonably airtight

Length and size of duct will be instructed by the Assessor.



Resources Required:

Tools:	Duct lifter Fire dampers Noise attenuation fittings Volume control dampers Chain blocks Measuring tape Ladders Try square Spirit level
Equipment:	Lifting equipment Elevated work platform Trolleys Rollers Scaffold Manometers
Machinery:	Electric drill machine with drill bits
Materials:	Acoustic and non-acoustic materials Fiberglass tissue

	Aluminium laminate fabric Perforated double-sided Aluminium foil Perforated zinc anneals Resin-bonded mineral wool PVC Thermal insulation Sheet metal Ducting
PPE:	Safety helmet Safety glasses Ear plugs Mask Apron/vest Hand gloves Safety shoes Safety harness

Set B: Practical Demonstration 2 – Observation Checklist

PRACTICAL DEMONSTRATION 2 – OBSERVATION CHECKLIST		
Candidate Name:		
Assessor Name:		
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation	
Task:	Install ducting	
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 tick (√) to show if evidence has been demonstrated competently	
	Yes	No
Workplace codes of conduct are interpreted as per organisational guidelines.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate manuals for work activity are identified and collected.	<input type="checkbox"/>	<input type="checkbox"/>
Information and specifications in the manuals are interpreted and applied.	<input type="checkbox"/>	<input type="checkbox"/>
Workplace documents are interpreted correctly.	<input type="checkbox"/>	<input type="checkbox"/>
Relevant sketches and drawings are identified for job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Key terms and abbreviations are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Schedules, dimensions, sketches, drawings and specifications are correctly read and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Visual information/symbols/signages are understood correctly and followed.	<input type="checkbox"/>	<input type="checkbox"/>
Specific and relevant information are accessed from appropriate sources.	<input type="checkbox"/>	<input type="checkbox"/>
Identified and followed safety signs and symbols.	<input type="checkbox"/>	<input type="checkbox"/>
OHS policies and procedures are applied in the workplace.	<input type="checkbox"/>	<input type="checkbox"/>

Identified and selected appropriate personal protective equipment (PPE).	<input type="checkbox"/>	<input type="checkbox"/>
Common safety issues are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Hazards and risks are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Materials to be measured are identified as per job specification.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate measuring method and device is identified and selected based on materials to be measured.	<input type="checkbox"/>	<input type="checkbox"/>
Measurements are obtained, calculated and confirmed using appropriate device in accordance with job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Material quantities are calculated, confirmed and recorded within tolerances.	<input type="checkbox"/>	<input type="checkbox"/>
Selected appropriate hand and power tools.	<input type="checkbox"/>	<input type="checkbox"/>
Usability of hand and power tools is checked and verified.	<input type="checkbox"/>	<input type="checkbox"/>
Unsafe or faulty hand tools are identified and marked for repair.	<input type="checkbox"/>	<input type="checkbox"/>
Applied proper and safe use/operation of hand and power tools in accordance to manufacturer's operating specification.	<input type="checkbox"/>	<input type="checkbox"/>
Prepared ducting materials for installation as per standard operating procedure.	<input type="checkbox"/>	<input type="checkbox"/>
Set-out ducting for air conditioning and ventilation system as per plan and job specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Positioned ducting supports and fixings as per manufacturer specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Installed ducting as per plans and specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Assembled and sealed circumferential joints.	<input type="checkbox"/>	<input type="checkbox"/>
Fitted and fixed insulation materials.	<input type="checkbox"/>	<input type="checkbox"/>
Installed diffusers and terminal devices.	<input type="checkbox"/>	<input type="checkbox"/>
Applied sustainability principles throughout installation.	<input type="checkbox"/>	<input type="checkbox"/>
Removed dust and foreign matters from hand and power tools in accordance to workplace standard.	<input type="checkbox"/>	<input type="checkbox"/>
Checked condition of hand and power tools after use.	<input type="checkbox"/>	<input type="checkbox"/>
Applied appropriate lubricant after use and prior to storage.	<input type="checkbox"/>	<input type="checkbox"/>
Checked and calibrated measuring tools.	<input type="checkbox"/>	<input type="checkbox"/>
Tools and equipment are cleaned, maintained and stored.	<input type="checkbox"/>	<input type="checkbox"/>
Recorded and reported defective or faulty tools and equipment.	<input type="checkbox"/>	<input type="checkbox"/>
Cleaned and maintained work area, and disposed of waste materials.	<input type="checkbox"/>	<input type="checkbox"/>
Roles and responsibilities of team members are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Reporting relationships are interpreted within team and external to team.	<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"/>
Appropriate medium is used to transfer information and ideas.	<input type="checkbox"/>	<input type="checkbox"/>
Active participation is ensured, opinions are expressed and heard.	<input type="checkbox"/>	<input type="checkbox"/>
Inputs are provided and interpreted in line with the meeting purpose.	<input type="checkbox"/>	<input type="checkbox"/>
Inappropriate and conflicting situations are avoided.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate lines of communication are maintained with supervisors and colleagues.	<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:

Set C: Practical Demonstration 1

PRACTICAL DEMONSTRATION 1	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation
Task:	Erect and dismantle scaffolding using bamboo
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 Duct Fitting for Air-conditioning and Ventilation ▪ 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. Visit worksite and make plan to erect scaffolding using bamboo. 3. Inspect worksite for hazards and implement appropriate controls (if necessary). 4. Identify and collect appropriate PPE. 5. Identify, collect and inspect all necessary tools and equipment required to perform task. 6. Calculate quantity of scaffolding components and materials required. 7. Collect scaffolding components and materials as per job specification. 8. Ensure signage and barricades are put in place as required. 9. Check, select and cut scaffolding components as per job specification. 10. Set-out and erect scaffolding components as per job specification. 11. Erect and install static line as per standard operating procedure and OHS requirements. 12. Assemble and erect lifting device. 13. Check stability of erected scaffolding and correct (if required). 14. Dismantle scaffolding using reverse erection procedure. 15. Check, clean and store tools, equipment and materials. 16. Record and report any defective or faulty tools, equipment or materials. 17. Clean and maintain work area. 18. Dispose of waste materials. 	

Drawing, Plan, Diagram or Sketch:

The illustration below is the blueprint of the task to be performed. During the erection and dismantling of bamboo scaffolding, you are to ensure:

- alignment
- spacing of components
- height
- loading
- stability

Length of scaffolding should not be less than 2.5m.

Erect common type of double scaffold (width 1m).

Use bamboo for standards, ledgers, brace and transoms.



Resources Required:

Tools:	Measuring tape (15m) Steel rule Cold chisel Hammer Combination pliers Hacksaw Hand saw Steel wire twisting tool Spirit level Plumb bob String Pencil Crowbar
Equipment:	Portable drilling machine Power saw/wood saw Safety net Static line Ladder

Machinery:	N/A
Materials:	Bamboo Wooden panel/board Nails of different sizes Ropes and ties
PPE:	Safety helmet Safety glasses Ear plugs Mask Apron/vest Hand gloves Safety shoes Safety harness

Set C: Practical Demonstration 1 – Observation Checklist

PRACTICAL DEMONSTRATION 1 – OBSERVATION CHECKLIST		
Candidate Name:		
Assessor Name:		
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation	
Task:	Erect and dismantle scaffolding using bamboo	
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 tick (√) to show if evidence has been demonstrated competently	
	Yes	No
Workplace codes of conduct are interpreted as per organisational guidelines.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate manuals for work activity are identified and collected.	<input type="checkbox"/>	<input type="checkbox"/>
Information and specifications in the manuals are interpreted and applied.	<input type="checkbox"/>	<input type="checkbox"/>
Workplace documents are interpreted correctly.	<input type="checkbox"/>	<input type="checkbox"/>
Relevant sketches and drawings are identified for job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Key terms and abbreviations are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Schedules, dimensions, sketches, drawings and specifications are correctly read and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Visual information/symbols/signages are understood correctly and followed.	<input type="checkbox"/>	<input type="checkbox"/>
Specific and relevant information are accessed from appropriate sources.	<input type="checkbox"/>	<input type="checkbox"/>
Identified and followed safety signs and symbols.	<input type="checkbox"/>	<input type="checkbox"/>
OHS policies and procedures are applied in the workplace.	<input type="checkbox"/>	<input type="checkbox"/>

Identified and selected appropriate personal protective equipment (PPE).	<input type="checkbox"/>	<input type="checkbox"/>
Common safety issues are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Hazards and risks are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Materials to be measured are identified as per job specification.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate measuring method and device is identified and selected based on materials to be measured.	<input type="checkbox"/>	<input type="checkbox"/>
Measurements are obtained, calculated and confirmed using appropriate device in accordance with job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Material quantities are calculated, confirmed and recorded within tolerances.	<input type="checkbox"/>	<input type="checkbox"/>
Selected appropriate hand and power tools.	<input type="checkbox"/>	<input type="checkbox"/>
Usability of hand and power tools is checked and verified.	<input type="checkbox"/>	<input type="checkbox"/>
Unsafe or faulty hand tools are identified and marked for repair.	<input type="checkbox"/>	<input type="checkbox"/>
Applied proper and safe use/operation of hand and power tools in accordance to manufacturer's operating specification.	<input type="checkbox"/>	<input type="checkbox"/>
Determined loading on scaffolding and support structures.	<input type="checkbox"/>	<input type="checkbox"/>
Identified site access and egress routes.	<input type="checkbox"/>	<input type="checkbox"/>
Identified and selected scaffolding and components.	<input type="checkbox"/>	<input type="checkbox"/>
Selected sole board/base plate as per manufacturer's specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Set out and erected scaffolding as per standard operating procedure and manufacturer's specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Erected and installed static lines.	<input type="checkbox"/>	<input type="checkbox"/>
Assembled and erected lifting devices.	<input type="checkbox"/>	<input type="checkbox"/>
Isolated and appropriately signed and barricaded scaffolding to ensure safe dismantling.	<input type="checkbox"/>	<input type="checkbox"/>
Dismantled scaffolding using reverse erection procedure.	<input type="checkbox"/>	<input type="checkbox"/>
Inventoried and returned scaffolding components to storage area as per standard operating procedure.	<input type="checkbox"/>	<input type="checkbox"/>
Removed dust and foreign matters from hand and power tools in accordance to workplace standard.	<input type="checkbox"/>	<input type="checkbox"/>
Checked condition of hand and power tools after use.	<input type="checkbox"/>	<input type="checkbox"/>
Applied appropriate lubricant after use and prior to storage.	<input type="checkbox"/>	<input type="checkbox"/>
Checked and calibrated measuring tools.	<input type="checkbox"/>	<input type="checkbox"/>
Tools and equipment are cleaned, maintained and stored.	<input type="checkbox"/>	<input type="checkbox"/>
Recorded and reported defective or faulty tools and equipment.	<input type="checkbox"/>	<input type="checkbox"/>
Cleaned and maintained work area, and disposed of waste materials.	<input type="checkbox"/>	<input type="checkbox"/>
Roles and responsibilities of team members are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>

Reporting relationships are interpreted within team and external to team.	<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"/>
Appropriate medium is used to transfer information and ideas.	<input type="checkbox"/>	<input type="checkbox"/>
Active participation is ensured, opinions are expressed and heard.	<input type="checkbox"/>	<input type="checkbox"/>
Inputs are provided and interpreted in line with the meeting purpose.	<input type="checkbox"/>	<input type="checkbox"/>
Inappropriate and conflicting situations are avoided.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate lines of communication are maintained with supervisors and colleagues.	<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:

Set C: Practical Demonstration 2

PRACTICAL DEMONSTRATION 2	
Candidate Name:	
Assessor Name:	
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation
Task:	Perform leak testing
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 Duct Fitting for Air-conditioning and Ventilation ▪ 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. Visit worksite and make plan to conduct leak test. 3. Inspect worksite for hazards and implement appropriate controls (if necessary). 4. Identify and collect appropriate PPE. 5. Identify, collect and inspect all necessary tools and equipment required to perform task. 6. Ensure signage and barricades are put in place as required. 7. Determine the maximum test pressure. 8. Check and inspect duct fitting connection integrity. 9. Isolate and shut-off devices, fixtures, fittings and components. 10. Determine test requirements from ducting plan and job specifications. 11. Identify and select testing equipment. 12. Seal duct where and as specified before leak testing. 13. Select test pressure not in excess of the pressure class rating of the duct. 14. Test ducting system under maximum test pressure. 15. Carry out leak tests and identify source of leaks 16. Repair or replace identified leak or leaks, as necessary. 17. Remove temporary blanks and seals. 18. Check, clean and store tools, equipment and materials. 19. Record and report any defective or faulty tools, equipment or materials. 20. Clean and maintain work area. 	

21. Dispose of waste materials.

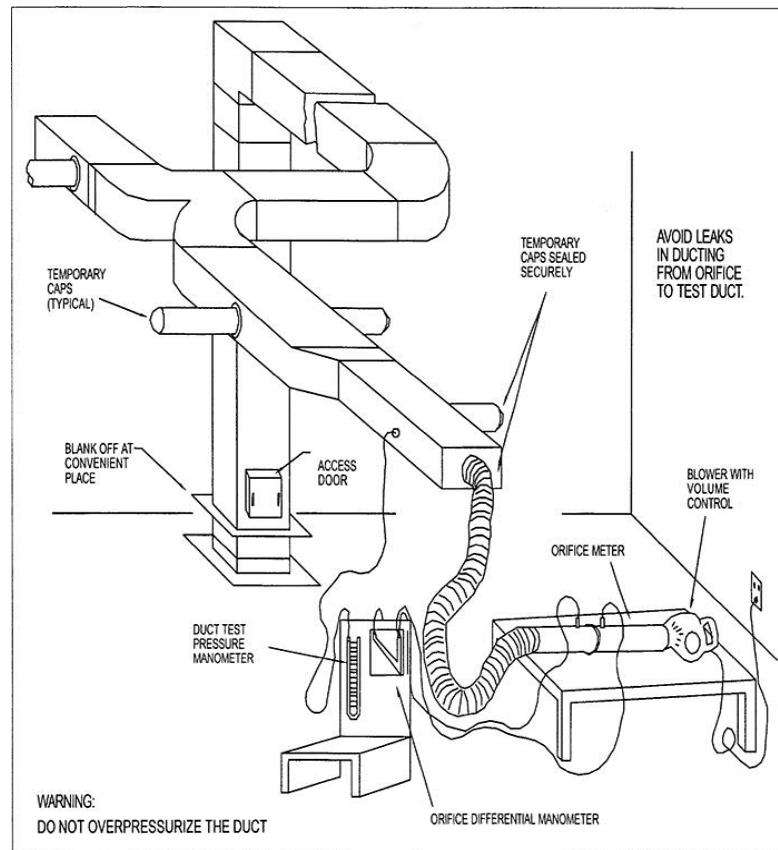
Drawing, Plan, Diagram or Sketch:

The illustration below is the blueprint of the task to be performed. During performing leak testing, you are to ensure:

- capacity of the test apparatus is suitable for the amount of duct to be tested
- consider acquiring experience with leakage rates in the type of construction used before formally conducting field tests
- isolate equipment (fans, in-line flanged coils, volume test regulating boxes, etc.) from tested ductwork
- do not over pressurize ducts
- do not test uncured seals
- conduct required tests before external insulation is applied and before ducts are concealed by building enclosures



Duct leakage testing equipment



Resources Required:

Tools:	Duct lifter Fire dampers Noise attenuation fittings Volume control dampers Chain blocks Manometers Measuring tape Ladders
Equipment:	Duct leakage testing equipment Pressure and flow gauge
Machinery:	N/A

Materials:	Acoustic and non-acoustic materials Fiberglass tissue Aluminium laminate fabric Perforated double-sided Aluminium foil Perforated zinc anneals Resin-bonded mineral wool PVC Thermal insulation Sheet metal Ducting
PPE:	Safety helmet Safety glasses Ear plugs Mask Apron/vest Hand gloves Safety shoes Safety harness

Set C: Practical Demonstration 2 – Observation Checklist




PRACTICAL DEMONSTRATION 2 – OBSERVATION CHECKLIST		
Candidate Name:		
Assessor Name:		
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation	
Task:	Perform leak testing	
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 tick (√) to show if evidence has been demonstrated competently	
	Yes	No
Workplace codes of conduct are interpreted as per organisational guidelines.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate manuals for work activity are identified and collected.	<input type="checkbox"/>	<input type="checkbox"/>
Information and specifications in the manuals are interpreted and applied.	<input type="checkbox"/>	<input type="checkbox"/>
Workplace documents are interpreted correctly.	<input type="checkbox"/>	<input type="checkbox"/>
Relevant sketches and drawings are identified for job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Key terms and abbreviations are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Schedules, dimensions, sketches, drawings and specifications are correctly read and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>
Visual information/symbols/signages are understood correctly and followed.	<input type="checkbox"/>	<input type="checkbox"/>
Specific and relevant information are accessed from appropriate sources.	<input type="checkbox"/>	<input type="checkbox"/>
Identified and followed safety signs and symbols.	<input type="checkbox"/>	<input type="checkbox"/>
OHS policies and procedures are applied in the workplace.	<input type="checkbox"/>	<input type="checkbox"/>

Identified and selected appropriate personal protective equipment (PPE).	<input type="checkbox"/>	<input type="checkbox"/>
Common safety issues are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Hazards and risks are identified.	<input type="checkbox"/>	<input type="checkbox"/>
Materials to be measured are identified as per job specification.	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate measuring method and device is identified and selected based on materials to be measured.	<input type="checkbox"/>	<input type="checkbox"/>
Measurements are obtained, calculated and confirmed using appropriate device in accordance with job requirement.	<input type="checkbox"/>	<input type="checkbox"/>
Material quantities are calculated, confirmed and recorded within tolerances.	<input type="checkbox"/>	<input type="checkbox"/>
Selected appropriate hand and power tools.	<input type="checkbox"/>	<input type="checkbox"/>
Usability of hand and power tools is checked and verified.	<input type="checkbox"/>	<input type="checkbox"/>
Unsafe or faulty hand tools are identified and marked for repair.	<input type="checkbox"/>	<input type="checkbox"/>
Applied proper and safe use/operation of hand and power tools in accordance to manufacturer's operating specification.	<input type="checkbox"/>	<input type="checkbox"/>
Used leak testing equipment safely in accordance to manufacturer's operating specification.	<input type="checkbox"/>	<input type="checkbox"/>
Determined maximum test pressure.		
Identified appropriate leak testing method.	<input type="checkbox"/>	<input type="checkbox"/>
Checked and inspected duct fitting connection integrity.	<input type="checkbox"/>	<input type="checkbox"/>
Isolated and shut-off devices, fixtures, fittings and components.	<input type="checkbox"/>	<input type="checkbox"/>
Determined test requirements from ducting plan. and job specifications.	<input type="checkbox"/>	<input type="checkbox"/>
Identified and selected testing equipment for required tests.	<input type="checkbox"/>	<input type="checkbox"/>
Tested ducting system under maximum test pressure.	<input type="checkbox"/>	<input type="checkbox"/>
Carried out leak tests and identified source of leaks.	<input type="checkbox"/>	<input type="checkbox"/>
Repaired or replaced identified leak or leaks, as needed.	<input type="checkbox"/>	<input type="checkbox"/>
Recorded testing results in appropriate format.	<input type="checkbox"/>	<input type="checkbox"/>
Removed dust and foreign matters from hand and power tools in accordance to workplace standard.	<input type="checkbox"/>	<input type="checkbox"/>
Checked condition of hand and power tools after use.	<input type="checkbox"/>	<input type="checkbox"/>
Applied appropriate lubricant after use and prior to storage.	<input type="checkbox"/>	<input type="checkbox"/>
Checked and calibrated measuring tools.	<input type="checkbox"/>	<input type="checkbox"/>
Tools and equipment are cleaned, maintained and stored.	<input type="checkbox"/>	<input type="checkbox"/>
Recorded and reported defective or faulty tools and equipment.	<input type="checkbox"/>	<input type="checkbox"/>
Cleaned and maintained work area, and disposed of waste materials.	<input type="checkbox"/>	<input type="checkbox"/>
Roles and responsibilities of team members are identified and interpreted.	<input type="checkbox"/>	<input type="checkbox"/>

Reporting relationships are interpreted within team and external to team.	<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"/>
Appropriate medium is used to transfer information and ideas.	<input type="checkbox"/>	<input type="checkbox"/>
Active participation is ensured, opinions are expressed and heard.	<input type="checkbox"/>	<input type="checkbox"/>
Inputs are provided and interpreted in line with the meeting purpose.	<input type="checkbox"/>	<input type="checkbox"/>
Inappropriate and conflicting situations are avoided.	<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 Duct Fitting for Air-Conditioning and Ventilation
Unit of Competency	
Generic Competencies	
SEIP-CON-DFA-01-G	Carry out workplace interaction
SEIP-CON-DFA-02-G	Operate in a team environment
SEIP-CON-DFA-03-G	Carry out calculations and measurements
Sector-specific Competencies	
SEIP-CON-DFA-01-S	Apply occupational health and safety (OHS) practice in the workplace
SEIP-CON-DFA-02-S	Read and interpret sketches and drawings
SEIP-CON-DFA-03-S	Use hand and power tools
Occupation-specific Competencies	
SEIP-CON-DFA-01-O	Plan and prepare for duct fitting
SEIP-CON-DFA-02-O	Perform access cutting and encroachment work
SEIP-CON-DFA-03-O	Prepare ducting materials
SEIP-CON-DFA-04-O	Install ducting
SEIP-CON-DFA-05-O	Perform leak testing
SEIP-CON-DFA-06-O	Erect and dismantle scaffolding
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 Duct Fitting for Air-conditioning and Ventilation ▪ 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 is the meaning of air-conditioning?	<input type="checkbox"/>	<input type="checkbox"/>
2.	What is the purpose of ventilation?	<input type="checkbox"/>	<input type="checkbox"/>
3.	What are the most common air ducts used to distribute air throughout a building or to exhaust air outside of a building?	<input type="checkbox"/>	<input type="checkbox"/>
4.	What is the difference between a nozzle and a diffuser?	<input type="checkbox"/>	<input type="checkbox"/>
5.	What is insulation?	<input type="checkbox"/>	<input type="checkbox"/>
6.	Why is insulation used?	<input type="checkbox"/>	<input type="checkbox"/>
7.	What are common types of materials used for insulation?	<input type="checkbox"/>	<input type="checkbox"/>
8.	What is a fastener?	<input type="checkbox"/>	<input type="checkbox"/>
9.	What is the function of louvers?	<input type="checkbox"/>	<input type="checkbox"/>
10.	Interpret the following visual information: 	<input type="checkbox"/>	<input type="checkbox"/>
11.	What does the following sign mean? 	<input type="checkbox"/>	<input type="checkbox"/>
12.	Interpret the following technical drawing: 	<input type="checkbox"/>	<input type="checkbox"/>
13.	What are the ways to find duct leakage?	<input type="checkbox"/>	<input type="checkbox"/>
14.	Why is pre-heating done?	<input type="checkbox"/>	<input type="checkbox"/>
15.	What are the braces?	<input type="checkbox"/>	<input type="checkbox"/>
16.	What is the function of sole board/base plate?	<input type="checkbox"/>	<input type="checkbox"/>


17.	Why is scaffolding dismantled using reverse erection or installation procedure?	<input type="checkbox"/>	<input type="checkbox"/>
18.	What are the safety requirements you should consider while performing ducting works?	<input type="checkbox"/>	<input type="checkbox"/>
19.	Why is tri-ethylene glycol spray nozzle used?	<input type="checkbox"/>	<input type="checkbox"/>
20.	What are your duties and responsibilities as a Duct Fitter for Air-conditioning and Ventilation?	<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 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 is the meaning of air-conditioning?	<i>Air-conditioning is the process of removing heat and moisture from the interior of an occupied space to improve the comfort of occupants.</i>
2.	What is the purpose of ventilation?	<i>Ventilation is the intentional introduction of ambient air into a space and is mainly used to control indoor air quality by diluting and displacing indoor pollutants; it can also be used for purposes of thermal comfort or dehumidification.</i>
3.	What are the most common air ducts used to distribute air throughout a building or to exhaust air outside of a building?	<ul style="list-style-type: none"> ▪ <i>sheet metal</i> ▪ <i>fiberglass lined</i> ▪ <i>fibreboard</i> ▪ <i>flex-line air ducts</i>
4.	What is the difference between a nozzle and a diffuser?	<i>A nozzle increases the velocity of a fluid, while a diffuser decreases the velocity of a fluid.</i>
5.	What is insulation?	<i>The act of covering something to stop heat, sound or electricity from escaping or entering, or the fact that something is covered is called insulation.</i>
6.	Why is insulation used?	<i>Insulation is used to stop heat, sound or electricity from escaping or entering an area and to provide protection from something harmful.</i>
7.	What are common types of materials used for insulation?	<ul style="list-style-type: none"> ▪ <i>cellulose</i> ▪ <i>fiberglass mineral wool</i> ▪ <i>polyurethane foam</i> ▪ <i>Styrofoam</i>
8.	What is a fastener?	<i>A fastener or fastening is a hardware device that mechanically joins or affixes two or more objects together.</i>
9.	What is the function of louvers?	<i>Allow fresh air into fixing chamber.</i>
10.	Interpret the following visual information: 	No entrance

11.	<p>What does the following sign mean?</p> 	<p>High voltage electricity hazard</p>
12.	<p>Interpret the following technical drawing:</p> 	<p>This is a four-way square ceiling diffuser which will give equal supply in all directions in an air-conditioning and ventilation system.</p>
13.	<p>What are the ways to find duct leakage?</p>	<ul style="list-style-type: none"> ▪ using a duct leakage tester and blower door together (the most common method) ▪ using a flow hood ▪ using a blower door and pressure pan (for diagnostic purposes only) ▪ using a blower door only (not recommended)
14.	<p>Why is pre-heating done?</p>	<p>To control moisture and heating air inside the room.</p>
15.	<p>What are the braces?</p>	<p>Braces are the diagonal members that are connected with standards to stiffen the scaffold.</p>
16.	<p>What is the function of sole board/base plate?</p>	<p>In scaffolding, sole board/base plates are used to support the load on soft ground.</p>
17.	<p>Why is scaffolding dismantled using reverse erection or installation procedure?</p>	<p>Scaffolding is dismantled using reverse erection or installation procedure only to avoid an accident.</p>
18.	<p>What are the safety requirements you should consider while performing ducting works?</p>	<ul style="list-style-type: none"> ▪ wearing of PPE ▪ installing safety barrier lines/guards ▪ first aid box
19.	<p>Why is tri-ethylene glycol spray nozzle used?</p>	<p>To disinfect air.</p>
20.	<p>What are your duties and responsibilities as a Duct Fitter for Air-conditioning and Ventilation?</p>	<ul style="list-style-type: none"> ▪ awareness of and practice of safety in the workplace ▪ awareness on the proper use of the supplies and materials ▪ perform ducting activities such as (but not limited to): cutting, setting and installation. ▪ responsible in the proper use of the tools and equipment

Assessment Evidence Summary Sheet

EVIDENCE SUMMARY SHEET			
Candidate Name:			
Assessor Name:			
Qualification:	Certificate in Duct Fitting for Air-Conditioning and Ventilation		
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 (Set)	<input type="checkbox"/>	<input type="checkbox"/>
	Practical Demonstration 2 (Set)	<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 Statement of Achievement (<i>indicate title of SOA, 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 evidence/standard?			<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 Duct Fitting for Air-Conditioning and Ventilation		
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 SOA (<i>indicate title of SOA 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 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-CON-DFA-01-G – Carry out workplace interaction		
Element	Assessment Evidence Method			
	Written	Practical	Oral	
1. Interpret workplace communication and etiquette.		A1, A2, B1, B2, C1, C2		
2. Read and understand workplace documents.		A1, A2, B1, B2, C1, C2		
3. Participate in workplace meetings and discussions.	9	A1, A2, B1, B2, C1, C2		
4. Apply professional ethics at work.		A1, A2, B1, B2, C1, C2		
Unit of Competency:		SEIP-CON-DFA-02-G - Operate in a team environment		
Element	Assessment Evidence Method			
	Written	Practical	Oral	
1. Identify team goals and work processes.		A1, A2, B1, B2, C1, C2		
2. Identify own role and responsibilities within team.		A1, A2, B1, B2, C1, C2	20	
3. Communicate and co-operate with team members.	10	A1, A2, B1, B2, C1, C2		
4. Practice problem solving within the team.		A1, A2, B1, B2, C1, C2		
Unit of Competency:		SEIP-CON-DFA-03-G – Carry out measurements and calculations		

Element		Assessment Evidence Method		
		Written	Practical	Oral
1. Plan and prepare.			A1, A2, B1, B2, C1, C2	
2. Obtain measurements.		21	A1, A2, B1, B2, C1, C2	
3. Perform calculations.		1	A1, A2, B1, B2, C1, C2	
Unit of Competency:	SEIP-CON-DFA-01-S – Apply occupational health and safety (OHS) practice in the workplace			
Element		Assessment Evidence Method		
		Written	Practical	Oral
1. Identify OHS policies and procedures.		18	A1, A2, B1, B2, C1, C2	10, 11
2. Apply personal health and safety practices.		12, 13, 15, 16	A1, A2, B1, B2, C1, C2	18
3. Report hazards and risks.		9, 11	A1, A2, B1, B2, C1, C2	
4. Respond to emergencies.			A1, A2, B1, B2, C1, C2	
Unit of Competency:	SEIP-CON-DFA-02-S – Read and interpret sketches and drawings			
Element		Assessment Evidence Method		
		Written	Practical	Oral
1. Interpret information and specifications.		5	A1, A2, B1, B2, C1, C2	
2. Read and interpret sketches and drawings.		2	A1, A2, B1, B2, C1, C2	12
Unit of Competency:	SEIP-CON-DFA-03-S – Use hand and power tools			
Element		Assessment Evidence Method		

		Written	Practical	Oral
1.	Identify and inspect hand and power tools.	4	A1, A2, B1, B2, C1, C2	
2.	Use hand tools properly and safely.		A1, A2, B1, B2, C1, C2	
3.	Operate power tools properly and safely.	5	A1, A2, B1, B2, C1, C2	
4.	Clean and maintain hand and power tools.		A1, A2, B1, B2, C1, C2	
Unit of Competency:	SEIP-CON-DFA-01-O – Plan and prepare for duct fitting			
Element	Assessment Evidence Method			
	Written	Practical	Oral	
1.	Plan and prepare for work.	8	A1, A2, B1, B2, C1, C2	1
2.	Identify system requirements.	17	A1, A2, B1, B2, C1, C2	2, 4
Unit of Competency:	SEIP-CON-DFA-02-O – Perform access cutting and encroachment work			
Element	Assessment Evidence Method			
	Written	Practical	Oral	
1.	Inspect encroachment area.	2	A2	
2.	Collect tools, equipment and materials.		A2	
3.	Carry out access cutting.		A2	9
4.	Clean and maintain work area.		A2	
Unit of Competency:	SEIP-CON-DFA-03-O – Prepare ducting materials			
Element	Assessment Evidence Method			
	Written	Practical	Oral	
1.	Collect tools, equipment and materials.	7	B2	7
2.	Prepare ducting materials for installation.		B2	5, 6, 19
Unit of Competency:	SEIP-CON-DFA-04-O – Install ducting			

Element		Assessment Evidence Method		
		Written	Practical	Oral
1. Collect tools, equipment and materials.		18, 20	B2	
2. Install ducting.		7, 14	B2	3, 14
3. Clean and maintain work area.			B2	
Unit of Competency:	SEIP-CON-DFA-05-O – Perform leak testing			
Element		Assessment Evidence Method		
		Written	Practical	Oral
1. Prepare for leak testing.			C2	
2. Collect tools, equipment and materials.			C2	
3. Test ducting system.			C2	13
4. Clean and maintain work area			C2	
Unit of Competency:	SEIP-CON-DFA-06-O – Erect and dismantle scaffolding			
Element		Assessment Evidence Method		
		Written	Practical	Oral
1. Collect tools, equipment and materials.		19	A1, B1, C1	8
2. Erect scaffolding.		6	A1, B1, C1	15, 16
3. Dismantle scaffolding.		6	A1, B1, C1	17
4. Clean and maintain work area.			A1, B1, C1	