

071305T4 RAC

REFRIGERATION AND AIR CONDITIONING LEVEL 5

ENG/OS/RAC/CR/03/5

Install Air Conditioning (A/C) Units

July/August 2025



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL CDACC)**

PRACTICAL ASSESSMENT

INSTRUCTIONS TO ASSESSOR

1. Assess the candidate as the practical progresses observing the critical areas
2. You are required to mark the practical as the candidate perform the tasks
3. You are required to take video clips at critical points
4. Ensure the candidate has a name tag and registration code at the back and front

OBSERVATION CHECKLIST

Candidate's name			
Registration Code			
Assessor's name & Registration Code			
Venue of Assessment			
Date of assessment			
Items to be evaluated: <i>Award marks as appropriate. Give a brief comment on your observation.</i>	Marks available	Marks obtained	Comments
1. Wore appropriate PPE as per the job requirements • Overall/dust coats • Goggles/Face shield • Safety boots • Gloves <i>(Award marks as indicated or zero)</i>	1 1 1 1 04		
2. Handled tools and equipment as per w procedure • Used of tools and equipment Correctly • Observed safety when using tools and equipment. <i>(Award marks as indicated or zero)</i>	2 2 04		

3. Pumped down the split air conditioning unit • Turned off indoor unit • Connected the gauges set service ports. • Located the service valves • Opened both valves fully • Turned the Ac unit to cooling mode • Closed the liquid line first • Monitored suction pressure gauge as unit runs. • Turned off unit when pressure is near zero (0) psi and closed the suction valve. • Disconnected gauges • Re-caped service valves securely. <i>(Award marks as indicated or zero)</i>	1 1 2 2 2 1 1 2 1 1 14		
4. Replaced the flare nuts of the outdoor unit • Checked all the valves are tightly closed • Released the flare nuts using spanners • Inspected the copper tubes carefully for cracks and damage • Cut the tube holding flare nut using tube cutter • Replaced the new flare nuts • Flared the copper tubes • Reconnected the flared nut • Tightened the flare nut <i>(Award marks as indicated or zero)</i>	2 2 2 2 3 2 2 3 18		
5. Carried out pressure testing on the system			

- Set-up pressure testing equipment - Checked the reading of the pressure at the manifold gauge - Pressurized the system to 150psi - Monitored the pressure by closing the valves. - Checked for leakage at the flared joint - Repaired leaking joints, if necessary <i>(Award marks as indicated or zero)</i>	2		
	2		
	2		
	2		
	1		
	1		
	10		
6. Performed evacuation process - Connected the vacuum pump correctly - Monitored the evacuation process - Stopped the process as per the SOPs <i>(Award marks as indicated or zero)</i>	3		
	2		
	2		
	07		
7. Back seated the suction and discharge valves at the condensing unit - Back seated the suction valve using AI - Back seated the discharge valve using Allen key <i>(Award marks as indicated or zero)</i>	2		
	2		
	04		
8. Monitored system performance as per workplace procedures. - Switched on the unit - Checked for vibration - Examined cool air from evaporator - Charged the unit as per the SOPs - Checked functionality of thermostat <i>Award marks as indicated or zero)</i>			
	2		
	2		
	2		
	2		
	2		
	10		
9. Performed housekeeping as per workplace policy - Cleared the work station, - Cleaned and stored tools and equipment	1		
	1		

- Cleaned the air conditioning system - Disposed of any waste. <i>(Award marks as indicated or zero)</i>	1		
	1		
	04		
10. Commissioned the unit as per standard operating procedures - Checked for superheat - Checked for cooling of indoor unit - Inspected vibration on outdoor unit - Checked fan motor functionality (indoor and outdoor unit) <i>(Award marks as indicated or zero)</i>	1		
	1		
	1		
	1		
	04		
11. Prepared a service report in line with workplace procedures.	05		
TOTA	84		
ASSES OUTCOME			
The candidate was found to be: Competent ☐ Not yet competent ☐ <i>(Please tick as appropriate)</i> <i>(The candidate is competent if the candidate obtains at least 50%)</i>			
Feedback from candidate:			
Feedback to candidate:			
Candidate's Signature		Date	
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Assessor's Signature		Date	
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