

071606T4AMT

AUTOMOTIVE MECHATRONICS TECHNOLOGY LEVEL 6

ENG/OS/AMT/CR/09/6/A

MAINTAIN VEHICLE ELECTRONICS AND TRANSDUCERS

July/Aug 2025



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

PRACTICAL ASSESMENT GUIDE

OBSERVATION CHECKLIST

Candidate's Name & Registration No.			
Assessor's Name & Reg. code			
Unit(s) of Competency			
Venue of Assessment			
Date of Assessment			
Items to be evaluated: <i>(Award appropriate marks for each item evaluated)</i>	Marks available	Marks obtained	Comments
TASK 1: Carry Out Engine Diagnosis And Retrieve Stored Codes.			
1. Wore protective clothing i. Safety boots ii. Apron <i>(Award 1 mark or 0 for each correctly worn PPE)</i>	2		
2. Connected OBD II port with the diagnostic tool with the ignition switch in off position. <i>(Award 2 marks or 0)</i>	2		

3. Turned on the vehicle after connecting the diagnostic tool with the OBD II port. <i>(Award 2 marks or 0)</i>	2		
4. Paired the diagnostic tool with vehicle ECM. <i>(Award 2 marks or 0)</i>	2		
5. Retrieved the stored diagnostic trouble codes. <i>(Award 2 marks or 0)</i>	2		
6. Checked the meaning of retrieved diagnostic trouble codes. <i>(Award 2 marks or 0)</i>	2		
SUB TOTAL	12		
TASK 2: Inspect The Variable Timing Oil Control Valve (OCV) Electrical Circuit			
7. Performed visual inspection on the OCV wire harness <i>(Award 2 marks or 0)</i>	2		
8. Identified the loosely connected wire harness connector <i>(Award 2 marks or 0)</i>	2		
9. Determined the voltage across the OCV wire harness connector using the multimeter <i>(Award 2 marks or 0)</i>	2		
10. Compared the obtained voltage measurements with the service manual <i>(Award 2 marks or 0)</i>	2		
11. Determined the wave pattern of the OCV actuating signal across the wire harness connector using the oscilloscope to <i>(Award 3 marks or 0 for correct procedure)</i>	3		
12. Compared the generated wave pattern with the one in the service manual <i>(Award 2 marks or 0)</i>	2		
Sub Total	13		
TASK 3: Inspect And Service The Variable Timing Oil Control Valve (Ocv).			
13. Switched ignition OFF and disconnected vehicle battery <i>(Award 2 marks or 0)</i>	2		

14. Removed the OCV from the vehicle <i>(Award 2 marks or 0)</i>	2		
15. Inspected the OCV oil ring for wear <i>(Award 2 marks or 0)</i>	2		
16. Tested the OCV solenoid for resistance using a digital multimeter <i>(Award 3 marks or 0 for correct procedure)</i>	3		
17. Compared the obtained resistance reading with the service manual <i>(Award 2 marks or 0)</i>	2		
18. Connected the 12v power to OCV terminals and checked for smooth movement of the plunger <i>(Award 2 marks or 0)</i>	2		
19. Removed the OCV oil filter from the vehicle <i>(Award 3 marks or 0 for correct procedure)</i>	3		
20. Cleaned the OCV oil filter <i>(Award 2 marks)</i>	2		
21. Reinstalled the OCV to the vehicle. <i>(Award 2 marks or 0)</i>	2		
22. Reinstalled the cleaned OCV oil filter to the vehicle. <i>(Award 2 marks or 0)</i>	2		
23. Reconnected the OCV wire harness connector. <i>(Award 2 marks or 0)</i>	2		
24. Reconnected the vehicle battery and Powered on the vehicle <i>(Award 1 mark or 0)</i>	2		
25. Cleared the diagnostic trouble codes. <i>(Award 2 marks or 0)</i>	2		
Sub Total	28		
Total Marks	53		
Grand Total $\frac{X}{53} \times 100$			
ASSESSMENT 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 the Candidate:	
Feedback to the Candidate:	
Candidate Signature	Date:
Assessor's Signature	Date