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AUTOMOTIVE MECHATRONICS

ASSESSMENT PACKAGE

National Vocational Certificate Level 4

Version 1 - November, 2019

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AUTOMOTIVE MECHATRONICS

ASSESSMENT PACKAGE

National Vocational Certificate Level 4

Version 1 - November, 2019

Title of Qualification: Automotive Mechatronics	CS Code: 071400963	Level: 4	Version:
Competency Standard Title: **Perpetuate Controlled Electrical & Electronics System-II**	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** 1. **Assessment Task 1:** Select appropriate tools and equipment to perform service of wiper motors, wiper arms, washer lines and nozzles. 2. **Assessment Task 2:** Select appropriate tools and equipment to repair Electronic Power steering System (EPS) with the help of OBD – II scanner. 3. **Assessment Task 3:** Select appropriate tools and equipment to diagnose the faults of sensors by using OBD – II scanner. **And complete:** 4. **Knowledge assessment test (Written or Oral)** 5. **Portfolios at the time of assessment**
aMinimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Remove and fit wiper motors and wiper arms Performance Criteria 4: Remove and fit washer lines and washer nozzles Performance Criteria 5: Remove and fit combination switch
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Preform diagnosing of faults in electronic power steering system (EPS) Performance Criteria 4: Remove and fit electronic power steering rack Performance Criteria 5: Remove and fit Engine controlling unit (ECU)
	Assessment Task 3 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Remove and fit sensors Performance Criteria 4: Perform function of sensors.
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1	**Description of assessment task 1:** Select appropriate tools and equipment to perform service of wiper motors, wiper arms, washer lines and nozzles.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Removed and fit wiper motors and wiper arms			
4	Performance Criteria 4: Removed and fit washer lines and washer nozzles			
5	Performance Criteria 5: Removed and fit combination switch			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2	**Description of assessment task 2:** Select appropriate tools and equipment to repair Electronic Power steering System (EPS) with the help of OBD – II scanner.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Preformed diagnosing of faults in electronic power steering system (EPS)			
4	Performance Criteria 4: Removed and fit electronic power steering rack			
5	Performance Criteria 5: Removed and fit Engine controlling unit (ECU)			
Competent ☐		Not Yet Competent ☐		

Assessment Task 3	**Description of assessment task 3:** Select appropriate tools and equipment to diagnose the faults of sensors by using OBD – II scanner.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Removed and fit sensors			
4	Performance Criteria 4: Performed function of sensors.			
Competent ☐		Not Yet Competent ☐		

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Perpetuate Controlled Electrical & Electronics System-II**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: Perpetuate Controlled Electrical & Electronics System-II	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	**Candidate's answer**
1. What is the function of wiper in a vehicle?	
2. What is windscreen washer system?	
3. Define rain sensor?	
4. Explain combination switch?	
5. Explain electric power steering (EPS)?	
6. What is the function of oxygen sensor?	
7. What is the position of crank position sensors?	
8. Explain the function of cam sensor?	

Question	Candidate's answer
9. What is function of throttle position sensors?	

Title of Qualification: Automotive Mechatronics	CS Code: 071400961	Level: 4	Version:
Competency Standard Title: **Conserve Power Transmission-II**	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** **6. Assessment Task 1:** Select appropriate tools and equipment to perform and diagnosis of continuous variable transmission (CVT) with the help of OBD – II scanner. **7. Assessment Task 2:** Select appropriate tools and equipment to perform maintenance of continuous variable transmission (CVT). **8. Assessment Task 3:** Perform continuous variable transmission (CVT) test by lift up/ road test drive as per instruction. **And complete:** **9. Knowledge assessment test (Written or Oral)** **10. Portfolios at the time of assessment**
Minimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Identify faults of continuous variable transmission (CVT) with the help of OBD – II scanner Performance Criteria 4: Check function of sensors Performance Criteria 5: Perform replacement of faulty sensors
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Preform inspection of all continuous variable transmission (CVT) sensors with the help of OBD – II scanner Performance Criteria 4: Check and replacement of continuous variable transmission (CVT) oil Performance Criteria 5: Perform belt replacement of continuous variable transmission (CVT) Performance Criteria 6: Perform and replacement of continuous variable transmission (CVT) oil seal Performance Criteria 7: Check and inspection of primary, secondary & manual valve body performance Performance Criteria 8: Perform replacement of shaft bearings

	Assessment Task 3 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Preform lift up/ road test of continuous variable transmission (CVT)
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1	**Description of assessment task 1** Select appropriate tools and equipment to perform and diagnosis of continuous variable transmission (CVT) with the help of OBD – II scanner.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Identified faults of continuous variable transmission (CVT) with the help of OBD – II scanner			
4	Performance Criteria 4: Checked function of sensors			
5	Performance Criteria 5: Performed replacement of faulty sensors			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2	**Description of assessment task 2** Select appropriate tools and equipment to perform maintenance of continuous variable transmission (CVT).

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Preformed inspection of all continuous variable transmission (CVT) sensors with the help of OBD – II scanner			
4	Performance Criteria 4: Checked and replacement of continuous variable transmission (CVT) oil			
5	Performance Criteria 5: Performed belt replacement of continuous variable transmission (CVT)			
6	Performance Criteria 6: Performed and replacement of continuous variable transmission (CVT) oil seal			
7	Performance Criteria 7: Checked and inspection of primary, secondary & manual valve body performance			
8	Performance Criteria 8: Performed replacement of shaft bearings			

Competent ☐	Not Yet Competent ☐

Assessment Task 3	**Description of assessment task 3** Perform continuous variable transmission (CVT) test by lift up/ road test drive as per instruction.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Preformed lift up/ road test of continuous variable transmission (CVT)			

Competent ☐	Not Yet Competent ☐

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Conserve Power Transmission-II**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Conserve Power Transmission-II**	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	Candidate's answer
1. A continuous variable transmission (CVT) also known as_____	1. **Shiftless transmission** 2. Shift gear transmission
2. The belt use in continuous variable transmission (CVT) is made up of___	1. Rubber belt 2. **Steel belt** 3. Leather belt 4. None of these
3. What component in continuous variable transmission (CVT) is used to switch the rotation direction?	1. Dry pulley 2. Driven pulley 3. **Planetary gear assembly** 4. Secondary driven gear
4. Start clutch is located in a place which allow the pulleys and the steel belt to be isolated from the wheels when the start clutch is not engaged?	**True/**False
5. The ATF pump in continuous variable transmission (CVT) is driven by___	1. **Input shaft** 2. Output shaft 3. None of these
6. The forward clutch engaged and disengaged the___	1. Ring gear 2. **Sun gear** 3. Pinion gear 4. None of these
7. Continuous variable transmission (CVT) contains how many parallel shafts?	1. 1 2. 2 3. 3 4. **4**
8. Which direction does the steel belt turn when driving in forward and reverse?	In reverse the steel belt turns in the opposite direction as in forward.

Question	Candidate's answer
9. Explain continuous variable transmission (CVT)?	Continuous variable transmission is an automatic transmission that can change seamlessly through a continuous range of effective gear ratios.
10. Write down the components name of continuous variable transmission (CVT)?	The components of continuous variable transmission (CVT) are as follows: Steel belt, planetary gear assembly, forward clutch, reverse brake, start clutch, fly wheel, parking mechanism, ATF pump, hydraulic valve unit and Power control unit (PCU).

Title of Qualification: Automotive Mechatronics	CS Code: 071400960	Level: 4	Version:
Competency Standard Title: **Maintain Emission Control System**	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** **11. Assessment Task 1:** Select appropriate tools and equipment to perform operation and diagnose faults of exhaust gases. **12. Assessment Task 2:** Select appropriate tools and equipment to perform operation and diagnose faults of Exhaust gas recirculation (EGR) system. **13. Assessment Task 3:** Select appropriate tools and equipment to operate and demonstrate re generation process of diesel EFI system by using OBD – II scanner. **And complete:** **14. Knowledge assessment test (Written or Oral)** **15. Portfolios at the time of assessment**
Minimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Identify faults of catalytic converter for chocked and damages Performance Criteria 4: Identify and diagnose faults of charcoal canister & purge valve Performance Criteria 5: Identify and diagnose faults of positive crankcase & ventilation (PCV) valve Performance Criteria 6: Perform inspection of fuel tank and lid gasket sealing Performance Criteria 7: Perform inspection of exhaust gas recirculation (EGR) valve with the help of vacuum gauge Performance Criteria 8: Perform inspection and fault diagnose of oxygen sensors with the help of OBD – II scanner
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Preform inspection of exhaust gas recirculation (EGR) valve with the help of OBD – II scanner Performance Criteria 4: Perform service of exhaust gas recirculation (EGR) valve

	Assessment Task 3 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Preform inspection of regeneration process in diesel EFI system with the help of OBD – II scanner Performance Criteria 4: Preform service of regeneration process in diesel EFI system
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1	**Description of assessment task 1** Select appropriate tools and equipment to perform operation and diagnose faults of exhaust gases.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Identified faults of catalytic converter for chocked and damages			
4	Performance Criteria 4: Identified and diagnose faults of charcoal canister & purge valve			
5	Performance Criteria 5: Identified and diagnose faults of positive crankcase & ventilation (PCV) valve			
6	Performance Criteria 6: Performed inspection of fuel tank and lid gasket sealing			
7	Performance Criteria 7: Performed inspection of exhaust gas recirculation (EGR) valve with the help of vacuum gauge			
8	Performance Criteria 8: Performed inspection and fault diagnose of oxygen sensors with the help of OBD – II scanner			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2	**Description of assessment task 2** Select appropriate tools and equipment to perform operation and diagnose faults of Exhaust gas recirculation (EGR) system.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Preformed inspection of exhaust gas recirculation (EGR) valve with the help of OBD – II scanner			
4	Performance Criteria 4: Performed service of exhaust gas recirculation (EGR) valve			
Competent ☐		Not Yet Competent ☐		

Assessment Task 3	**Description of assessment task 3** Select appropriate tools and equipment to operate and demonstrate re generation process of diesel EFI system by using OBD – II scanner.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Preformed inspection of regeneration process in diesel EFI system with the help of OBD – II scanner			
4	Performance Criteria 4: Preformed service of regeneration process in diesel EFI system			
Competent ☐		Not Yet Competent ☐		

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Emission Control System**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Emission Control System**	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	**Candidate's answer**
1. What is emission control system?	
2. What are the main components of emission control system?	
3. What is the function of catalytic converter?	
4. What is the function of Exhaust gases recirculation (EGR) valve?	
5. What is AD Blue?	
6. What is diesel particulate filter (DPF)?	

Title of Qualification: Automotive Mechatronics	CS Code: 071400959	Level: 4	Version:
Competency Standard Title: **Maintain Fuel Control System-II**	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** 16. **Assessment Task 1:** Select appropriate tools and equipment to perform maintenance of gasoline direct injection (GDI). 17. **Assessment Task 2:** Select appropriate tools and equipment to perform maintenance of common rail direct injection (CRDI). 18. **Assessment Task 3:** Select appropriate tools and equipment to perform maintenance of eco-idle system. **And complete:** 19. **Knowledge assessment test (Written or Oral)** 20. **Portfolios at the time of assessment**
Minimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Check the engine parameters with the help of OBD – II scanner Performance Criteria 4: Perform test low and high pressure pump control circuit
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Check low pump pressure test by using pressure gauge Performance Criteria 4: Check high pump pressure test by using pressure gauge Performance Criteria 5: Check pressure control valve

	Assessment Task 3 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Check all parameters (Battery, Temperature, starter motor, coolant, etc.) Performance Criteria 4: Check function of eco-idle system
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1	Description of assessment task 1 Select appropriate tools and equipment to perform maintenance of gasoline direct injection (GDI).

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Checked the engine parameters with the help of OBD – II scanner			
4	Performance Criteria 4: Performed test low and high pressure pump control circuit			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2	Description of assessment task 2 Select appropriate tools and equipment to perform maintenance of common rail direct injection (CRDI).

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Checked low pump pressure test by using pressure gauge			
4	Performance Criteria 4: Checked high pump pressure test by using pressure gauge			
5	Performance Criteria 5: Checked pressure control valve			
Competent ☐		Not Yet Competent ☐		

Assessment Task 3	Description of assessment task 3 Select appropriate tools and equipment to perform maintenance of eco-idle system.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Checked all parameters (Battery, Temperature, starter motor, coolant, etc.)			
4	Performance Criteria 4: Checked function of eco-idle system			
Competent ☐		Not Yet Competent ☐		

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Fuel Control System-II**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Fuel Control System – II**	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	Candidate's answer
7. What is gasoline direct injection (GDI)?	The Gasoline is highly pressurized, and injected directly into the combustion chamber of each cylinder via common rail fuel line as oppose to conventional multipoint fuel injection that injects fuel into the intake cylinder port.
8. What is CRDI stands for?	CRDI stands for common rail direct injection.
9. How common rail direct injection (CRDI) works?	CRDI directly inject fuel into the cylinders of a diesel engine through a single common line known as the common rail.
10. What is the difference between CRDI and TDI engine?	TDI is the turbo diesel engine while the CRDI is common rail direct injection engine.
11. What is echo-idle system?	An echo-idle system is starts stop system in automobiles.
12. What is the working of pressure control valve?	Pressure control valve is a relieve valve or safety valve used to control or limit the pressure in the system.

Title of Qualification: Automotive Mechatronics	CS Code: 071400964	Level: 4	Version:
Competency Standard Title: **Maintain Network System**	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** **21. Assessment Task 1:** Select appropriate tools and equipment to check the operation of navigation system. **22. Assessment Task 2:** Select appropriate tools and equipment to perform maintenance of control area network (CAN) system. **23. Assessment Task 3:** Select appropriate tools and equipment to demonstrate the electric parking system. **And complete:** **24. Knowledge assessment test (Written or Oral)** **25. Portfolios at the time of assessment**
Minimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Identify the location of navigation device & antenna Performance Criteria 4: Perform removal and fitting of LCD from dashboard. Performance Criteria 5: Check function of navigation card
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Identify the location of control area network (CAN) connector. Performance Criteria 4: Remove and refit of control area network (CAN) connector.

	Assessment Task 3 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Identify the location and function of ABS modulator Performance Criteria 4: Identify the location and function of electric parking brake motors Performance Criteria 5: Perform function of OBD – II scanner to release the electric parking brake motors
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1	Description of assessment task 1 Select appropriate tools and equipment to check the operation of navigation system.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Identified the location of navigation device & antenna			
4	Performance Criteria 4: Performed removal and fitting of LCD from dashboard.			
5	Performance Criteria 5: Checked function of navigation card			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2	Description of assessment task 2 Select appropriate tools and equipment to perform maintenance of control area network (CAN) system.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Identified the location of control area network (CAN) connector.			
4	Performance Criteria 4: Removed and refit of control area network (CAN) connector.			
Competent ☐		Not Yet Competent ☐		

Assessment Task 3	Description of assessment task 3 Select appropriate tools and equipment to demonstrate the electric parking system.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Identified the location and function of ABS modulator			
4	Performance Criteria 4: Identified the location and function of electric parking brake motors			
5	Performance Criteria 5: Performed function of OBD – II scanner to release the electric parking brake motors			
Competent ☐		Not Yet Competent ☐		

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Network System**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Network System**	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	Candidate's answer
11. Define navigation system?	Navigation system is a system that aids in navigation.
12. Types of navigation system?	5. Automotive navigation system 6. Marine navigation system 7. Satellite navigation system 8. Surgical navigation system 9. Inertial guidance system 10. Robotic mapping
13. What is the best navigation system?	Global positioning system (GPS) is the best navigation system.
14. Explain control area network (CAN)?	Control area network (CAN) is a robust vehicle bus standard design to allow microcontroller and devices to communicate with each other in application without a host computer.
15. Explain the application of control area network (CAN)?	1. Passenger vehicles 2. Trucks 3. Buses 4. Gasoline vehicle 5. Electrical vehicles 6. Elevators 7. Escalators 8. Medical instruments & equipments
16. What is hill assist system?	Hill assist system control the car when you have stopped on an incline and want to start moving again.
17. What is ABS modulator?	ABS modulator is a device which electronically control ABS brakes from brake locking up status.

Title of Qualification: Automotive Mechatronics	CS Code: 071400962	Level: 4	Version:
Competency Standard Title: Service Comfort & Safety System-II	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** **26. Assessment Task 1:** Select appropriate tools and equipment to perform operation and diagnose cruise control system by using OBD – II Scanner. **27. Assessment Task 2:** Select appropriate tools and equipment to demonstrate and diagnose supplementary Restraint System (SRS) by using OBD – II Scanner. **And complete:** **28. Knowledge assessment test (Written or Oral)** **29. Portfolios at the time of assessment (if any)**
Minimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Understand and working principal of cruise control system. Performance Criteria 4: Identify the faults in cruise control system with the help of OBD – II scanner
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Install supplementary Restraint System (SRS) Performance Criteria 4: Install seat belts assembly Performance Criteria 5: Install Air bag module assembly
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1	**Description of assessment task 1** Select appropriate tools and equipment to perform operation and diagnose cruise control system by using OBD – II Scanner

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance criteria 2: Selected tools and equipment for the given task			
3	Performance criteria 3: Installed supplementary Restraint System (SRS)			
4	Performance Criteria 4: Identified the faults in cruise control system with the help of OBD – II scanner			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2	**Description of assessment task 2** Select appropriate tools and equipment to demonstrate and diagnose supplementary Restraint System (SRS) by using OBD – II Scanner

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 4: Installed seat belts assembly			
4	Performance Criteria 4: Installed seat belts assembly			
5	Performance Criteria 5: Installed Air bag module assembly			

Competent ☐	Not Yet Competent ☐

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Service Comfort & Safety System-II**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Service Comfort & Safety System-II**	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	Candidate's answer
18. All cruise control system being turned off when the driver__	
19. If supplementary restraint system (SRS) light is eliminated on your dashboard this safety feature in your vehicle has been active__	
20. What is the purpose of the air bag installed in the motor vehicle/	
21. Write down the component of supplementary restraint system (SRS) system?	
22. What is cruise control system?	
23. Explain the mechanism of cruise control system?	
24. What is the mean of supplementary restraint system (SRS) system?	

Title of Qualification: Automotive Mechatronics	CS Code: 071400963	Level: 4	Version:
Competency Standard Title: **Perpetuate Controlled Electrical & Electronics System-II**	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** **30. Assessment Task 1:** Select appropriate tools and equipment to perform service of wiper motors, wiper arms, washer lines and nozzles. **31. Assessment Task 2:** Select appropriate tools and equipment to repair Electronic Power steering System (EPS) with the help of OBD – II scanner. **32. Assessment Task 3:** Select appropriate tools and equipment to diagnose the faults of sensors by using OBD – II scanner. **And complete:** **33. Knowledge assessment test (Written or Oral)** **34. Portfolios at the time of assessment**
Minimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Remove and fit wiper motors and wiper arms Performance Criteria 4: Remove and fit washer lines and washer nozzles Performance Criteria 5: Remove and fit combination switch
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Preform diagnosing of faults in electronic power steering system (EPS) Performance Criteria 4: Remove and fit electronic power steering rack Performance Criteria 5: Remove and fit Engine controlling unit (ECU)

	Assessment Task 3 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Remove and fit sensors Performance Criteria 4: Perform function of sensors.
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1	**Description of assessment task 1:** Select appropriate tools and equipment to perform service of wiper motors, wiper arms, washer lines and nozzles.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Removed and fit wiper motors and wiper arms			
4	Performance Criteria 4: Removed and fit washer lines and washer nozzles			
5	Performance Criteria 5: Removed and fit combination switch			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2	**Description of assessment task 2:** Select appropriate tools and equipment to repair Electronic Power steering System (EPS) with the help of OBD – II scanner.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Preformed diagnosing of faults in electronic power steering system (EPS)			
4	Performance Criteria 4: Removed and fit electronic power steering rack			
5	Performance Criteria 5: Removed and fit Engine controlling unit (ECU)			
Competent ☐		Not Yet Competent ☐		

Assessment Task 3	**Description of assessment task 3:** Select appropriate tools and equipment to diagnose the faults of sensors by using OBD – II scanner.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Removed and fit sensors			
4	Performance Criteria 4: Performed function of sensors.			
Competent ☐		Not Yet Competent ☐		

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Perpetuate Controlled Electrical & Electronics System-II**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: Perpetuate Controlled Electrical & Electronics System-II	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	Candidate's answer
10. What is the function of wiper in a vehicle?	
11. What is windscreen washer system?	
12. Define rain sensor?	
13. Explain combination switch?	
14. Explain electric power steering (EPS)?	
15. What is the function of oxygen sensor?	
16. What is the position of crank position sensors?	
17. Explain the function of cam sensor?	

Question	Candidate's answer
18. What is function of throttle position sensors?	

Title of Qualification: Automotive Mechatronics	CS Code: 071400961	Level: 4	Version:
Competency Standard Title: **Conserve Power Transmission-II**	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** **35. Assessment Task 1:** Select appropriate tools and equipment to perform and diagnosis of continuous variable transmission (CVT) with the help of OBD – II scanner. **36. Assessment Task 2:** Select appropriate tools and equipment to perform maintenance of continuous variable transmission (CVT). **37. Assessment Task 3:** Perform continuous variable transmission (CVT) test by lift up/ road test drive as per instruction. **And complete:** **38. Knowledge assessment test (Written or Oral)** **39. Portfolios at the time of assessment**
Minimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Identify faults of continuous variable transmission (CVT) with the help of OBD – II scanner Performance Criteria 4: Check function of sensors Performance Criteria 5: Perform replacement of faulty sensors
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Preform inspection of all continuous variable transmission (CVT) sensors with the help of OBD – II scanner Performance Criteria 4: Check and replacement of continuous variable transmission (CVT) oil Performance Criteria 5: Perform belt replacement of continuous variable transmission (CVT) Performance Criteria 6: Perform and replacement of continuous variable transmission (CVT) oil seal Performance Criteria 7: Check and inspection of primary, secondary & manual valve body performance Performance Criteria 8: Perform replacement of shaft bearings

	Assessment Task 3 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Preform lift up/ road test of continuous variable transmission (CVT)
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor:..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)					
Assessment Task 1	**Description of assessment task 1** Select appropriate tools and equipment to perform and diagnosis of continuous variable transmission (CVT) with the help of OBD – II scanner.				
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task				
2	Performance Criteria 2: Selected tools and equipment for the given task				
3	Performance Criteria 3: Identified faults of continuous variable transmission (CVT) with the help of OBD – II scanner				
4	Performance Criteria 4: Checked function of sensors				
5	Performance Criteria 5: Performed replacement of faulty sensors				
Competent ☐		Not Yet Competent ☐			

Assessment Task 2	**Description of assessment task 2** Select appropriate tools and equipment to perform maintenance of continuous variable transmission (CVT).

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Preformed inspection of all continuous variable transmission (CVT) sensors with the help of OBD – II scanner			
4	Performance Criteria 4: Checked and replacement of continuous variable transmission (CVT) oil			
5	Performance Criteria 5: Performed belt replacement of continuous variable transmission (CVT)			
6	Performance Criteria 6: Performed and replacement of continuous variable transmission (CVT) oil seal			
7	Performance Criteria 7: Checked and inspection of primary, secondary & manual valve body performance			
8	Performance Criteria 8: Performed replacement of shaft bearings			

Competent ☐	Not Yet Competent ☐

Assessment Task 3	**Description of assessment task 3** Perform continuous variable transmission (CVT) test by lift up/ road test drive as per instruction.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Preformed lift up/ road test of continuous variable transmission (CVT)			

Competent ☐	Not Yet Competent ☐

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Conserve Power Transmission-II**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Conserve Power Transmission-II**	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	**Candidate's answer**
25. A continuous variable transmission (CVT) also known as_____	3. **Shiftless transmission** 4. Shift gear transmission
26. The belt use in continuous variable transmission (CVT) is made up of___	11. Rubber belt 12. **Steel belt** 13. Leather belt 14. None of these
27. What component in continuous variable transmission (CVT) is used to switch the rotation direction?	5. Dry pulley 6. Driven pulley 7. **Planetary gear assembly** 8. Secondary driven gear
28. Start clutch is located in a place which allow the pulleys and the steel belt to be isolated from the wheels when the start clutch is not engaged?	**True/**False
29. The ATF pump in continuous variable transmission (CVT) is driven by___	4. **Input shaft** 5. Output shaft 6. None of these
30. The forward clutch engaged and disengaged the___	5. Ring gear 6. **Sun gear** 7. Pinion gear 8. None of these
31. Continuous variable transmission (CVT) contains how many parallel shafts?	5. 1 6. 2 7. 3 8. **4**
32. Which direction does the steel belt turn when driving in forward and reverse?	In reverse the steel belt turns in the opposite direction as in forward.

Question	Candidate's answer
33. Explain continuous variable transmission (CVT)?	Continuous variable transmission is an automatic transmission that can change seamlessly through a continuous range of effective gear ratios.
34. Write down the components name of continuous variable transmission (CVT)?	The components of continuous variable transmission (CVT) are as follows: Steel belt, planetary gear assembly, forward clutch, reverse brake, start clutch, fly wheel, parking mechanism, ATF pump, hydraulic valve unit and Power control unit (PCU).

Title of Qualification: Automotive Mechatronics	CS Code: 071400960	Level: 4	Version:
Competency Standard Title: **Maintain Emission Control System**	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** **40. Assessment Task 1:** Select appropriate tools and equipment to perform operation and diagnose faults of exhaust gases. **41. Assessment Task 2:** Select appropriate tools and equipment to perform operation and diagnose faults of Exhaust gas recirculation (EGR) system. **42. Assessment Task 3:** Select appropriate tools and equipment to operate and demonstrate re generation process of diesel EFI system by using OBD – II scanner. **And complete:** **43. Knowledge assessment test (Written or Oral)** **44. Portfolios at the time of assessment**
Minimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Identify faults of catalytic converter for chocked and damages Performance Criteria 4: Identify and diagnose faults of charcoal canister & purge valve Performance Criteria 5: Identify and diagnose faults of positive crankcase & ventilation (PCV) valve Performance Criteria 6: Perform inspection of fuel tank and lid gasket sealing Performance Criteria 7: Perform inspection of exhaust gas recirculation (EGR) valve with the help of vacuum gauge Performance Criteria 8: Perform inspection and fault diagnose of oxygen sensors with the help of OBD – II scanner
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Preform inspection of exhaust gas recirculation (EGR) valve with the help of OBD – II scanner Performance Criteria 4: Perform service of exhaust gas recirculation (EGR) valve

	Assessment Task 3 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Preform inspection of regeneration process in diesel EFI system with the help of OBD – II scanner Performance Criteria 4: Preform service of regeneration process in diesel EFI system
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1	**Description of assessment task 1** Select appropriate tools and equipment to perform operation and diagnose faults of exhaust gases.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Identified faults of catalytic converter for chocked and damages			
4	Performance Criteria 4: Identified and diagnose faults of charcoal canister & purge valve			
5	Performance Criteria 5: Identified and diagnose faults of positive crankcase & ventilation (PCV) valve			
6	Performance Criteria 6: Performed inspection of fuel tank and lid gasket sealing			
7	Performance Criteria 7: Performed inspection of exhaust gas recirculation (EGR) valve with the help of vacuum gauge			
8	Performance Criteria 8: Performed inspection and fault diagnose of oxygen sensors with the help of OBD – II scanner			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2	**Description of assessment task 2** Select appropriate tools and equipment to perform operation and diagnose faults of Exhaust gas recirculation (EGR) system.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Preformed inspection of exhaust gas recirculation (EGR) valve with the help of OBD – II scanner			
4	Performance Criteria 4: Performed service of exhaust gas recirculation (EGR) valve			
Competent ☐		Not Yet Competent ☐		

Assessment Task 3	**Description of assessment task 3** Select appropriate tools and equipment to operate and demonstrate re generation process of diesel EFI system by using OBD – II scanner.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Preformed inspection of regeneration process in diesel EFI system with the help of OBD – II scanner			
4	Performance Criteria 4: Preformed service of regeneration process in diesel EFI system			
Competent ☐		Not Yet Competent ☐		

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Emission Control System**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Emission Control System**	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	**Candidate's answer**
13. What is emission control system?	
14. What are the main components of emission control system?	
15. What is the function of catalytic converter?	
16. What is the function of Exhaust gases recirculation (EGR) valve?	
17. What is AD Blue?	
18. What is diesel particulate filter (DPF)?	

Title of Qualification: Automotive Mechatronics	CS Code: 071400959	Level: 4	Version:
Competency Standard Title: **Maintain Fuel Control System-II**	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** **45. Assessment Task 1:** Select appropriate tools and equipment to perform maintenance of gasoline direct injection (GDI). **46. Assessment Task 2:** Select appropriate tools and equipment to perform maintenance of common rail direct injection (CRDI). **47. Assessment Task 3:** Select appropriate tools and equipment to perform maintenance of eco-idle system. **And complete:** **48. Knowledge assessment test (Written or Oral)** **49. Portfolios at the time of assessment**
Minimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Check the engine parameters with the help of OBD – II scanner Performance Criteria 4: Perform test low and high pressure pump control circuit
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Check low pump pressure test by using pressure gauge Performance Criteria 4: Check high pump pressure test by using pressure gauge Performance Criteria 5: Check pressure control valve

	Assessment Task 3 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Check all parameters (Battery, Temperature, starter motor, coolant, etc.) Performance Criteria 4: Check function of eco-idle system
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1	Description of assessment task 1 Select appropriate tools and equipment to perform maintenance of gasoline direct injection (GDI).

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Checked the engine parameters with the help of OBD – II scanner			
4	Performance Criteria 4: Performed test low and high pressure pump control circuit			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2	Description of assessment task 2 Select appropriate tools and equipment to perform maintenance of common rail direct injection (CRDI).

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Checked low pump pressure test by using pressure gauge			
4	Performance Criteria 4: Checked high pump pressure test by using pressure gauge			
5	Performance Criteria 5: Checked pressure control valve			
Competent ☐		Not Yet Competent ☐		

Assessment Task 3	Description of assessment task 3 Select appropriate tools and equipment to perform maintenance of eco-idle system.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Checked all parameters (Battery, Temperature, starter motor, coolant, etc.)			
4	Performance Criteria 4: Checked function of eco-idle system			
Competent ☐		Not Yet Competent ☐		

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Fuel Control System-II**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Fuel Control System – II**	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	Candidate's answer
19. What is gasoline direct injection (GDI)?	The Gasoline is highly pressurized, and injected directly into the combustion chamber of each cylinder via common rail fuel line as oppose to conventional multipoint fuel injection that injects fuel into the intake cylinder port.
20. What is CRDI stands for?	CRDI stands for common rail direct injection.
21. How common rail direct injection (CRDI) works?	CRDI directly inject fuel into the cylinders of a diesel engine through a single common line known as the common rail.
22. What is the difference between CRDI and TDI engine?	TDI is the turbo diesel engine while the CRDI is common rail direct injection engine.
23. What is echo-idle system?	An echo-idle system is starts stop system in automobiles.
24. What is the working of pressure control valve?	Pressure control valve is a relieve valve or safety valve used to control or limit the pressure in the system.

Title of Qualification: Automotive Mechatronics	CS Code: 071400964	Level: 4	Version:
Competency Standard Title: **Maintain Network System**	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** **50. Assessment Task 1:** Select appropriate tools and equipment to check the operation of navigation system. **51. Assessment Task 2:** Select appropriate tools and equipment to perform maintenance of control area network (CAN) system. **52. Assessment Task 3:** Select appropriate tools and equipment to demonstrate the electric parking system. **And complete:** **53. Knowledge assessment test (Written or Oral)** **54. Portfolios at the time of assessment**
Minimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Identify the location of navigation device & antenna Performance Criteria 4: Perform removal and fitting of LCD from dashboard. Performance Criteria 5: Check function of navigation card
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Identify the location of control area network (CAN) connector. Performance Criteria 4: Remove and refit of control area network (CAN) connector.

	Assessment Task 3 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Identify the location and function of ABS modulator Performance Criteria 4: Identify the location and function of electric parking brake motors Performance Criteria 5: Perform function of OBD – II scanner to release the electric parking brake motors
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1	Description of assessment task 1 Select appropriate tools and equipment to check the operation of navigation system.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Identified the location of navigation device & antenna			
4	Performance Criteria 4: Performed removal and fitting of LCD from dashboard.			
5	Performance Criteria 5: Checked function of navigation card			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2	Description of assessment task 2 Select appropriate tools and equipment to perform maintenance of control area network (CAN) system.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Identified the location of control area network (CAN) connector.			
4	Performance Criteria 4: Removed and refit of control area network (CAN) connector.			
Competent ☐		Not Yet Competent ☐		

Assessment Task 3	Description of assessment task 3 Select appropriate tools and equipment to demonstrate the electric parking system.

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 3: Identified the location and function of ABS modulator			
4	Performance Criteria 4: Identified the location and function of electric parking brake motors			
5	Performance Criteria 5: Performed function of OBD – II scanner to release the electric parking brake motors			
Competent ☐		Not Yet Competent ☐		

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Network System**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Maintain Network System**	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	Candidate's answer
35. Define navigation system?	Navigation system is a system that aids in navigation.
36. Types of navigation system?	15. Automotive navigation system 16. Marine navigation system 17. Satellite navigation system 18. Surgical navigation system 19. Inertial guidance system 20. Robotic mapping
37. What is the best navigation system?	Global positioning system (GPS) is the best navigation system.
38. Explain control area network (CAN)?	Control area network (CAN) is a robust vehicle bus standard design to allow microcontroller and devices to communicate with each other in application without a host computer.
39. Explain the application of control area network (CAN)?	9. Passenger vehicles 10. Trucks 11. Buses 12. Gasoline vehicle 13. Electrical vehicles 14. Elevators 15. Escalators 16. Medical instruments & equipments
40. What is hill assist system?	Hill assist system control the car when you have stopped on an incline and want to start moving again.
41. What is ABS modulator?	ABS modulator is a device which electronically control ABS brakes from brake locking up status.

Title of Qualification: Automotive Mechatronics	CS Code: 071400962	Level: 4	Version:
Competency Standard Title: Service Comfort & Safety System-II	**Assessment Date (DD/MM/YY):**		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** **55. Assessment Task 1:** Select appropriate tools and equipment to perform operation and diagnose cruise control system by using OBD – II Scanner. **56. Assessment Task 2:** Select appropriate tools and equipment to demonstrate and diagnose supplementary Restraint System (SRS) by using OBD – II Scanner. **And complete:** **57. Knowledge assessment test (Written or Oral)** **58. Portfolios at the time of assessment (if any)**
Minimum Evidence Required	**During a practical assessment, under observation by an assessor, you will complete:** **Assessment Task 1** Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Understand and working principal of cruise control system. Performance Criteria 4: Identify the faults in cruise control system with the help of OBD – II scanner
	Assessment Task 2 Performance Criteria 1: Apply relevant health and safety requirements during completion of task Performance Criteria 2: Select tools and equipment for the given task Performance Criteria 3: Install supplementary Restraint System (SRS) Performance Criteria 4: Install seat belts assembly Performance Criteria 5: Install Air bag module assembly
	Portfolios required at the time of assessment (if any) for Performance criteria 1 for the evaluation of portfolio : Submit note book or practical activity journal, completed during this specific module, for relevant activity with drawing/illustration

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:..... .....
Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:..... .....

Assessment Summary (to be filled by the assessor)							
Activity	**Method**					**Result**	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1	**Description of assessment task 1** Select appropriate tools and equipment to perform operation and diagnose cruise control system by using OBD – II Scanner

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance criteria 2: Selected tools and equipment for the given task			
3	Performance criteria 3: Installed supplementary Restraint System (SRS)			
4	Performance Criteria 4: Identified the faults in cruise control system with the help of OBD – II scanner			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2	**Description of assessment task 2** Select appropriate tools and equipment to demonstrate and diagnose supplementary Restraint System (SRS) by using OBD – II Scanner

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1: Applied relevant health and safety requirements during completion of task			
2	Performance Criteria 2: Selected tools and equipment for the given task			
3	Performance Criteria 4: Installed seat belts assembly			
4	Performance Criteria 4: Installed seat belts assembly			
5	Performance Criteria 5: Installed Air bag module assembly			

Competent ☐	Not Yet Competent ☐

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Service Comfort & Safety System-II**	**Assessment Date (DD/MM/YY):**		

Guidance for Candidate	**To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.**

Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:..... .....
Written Assessment Outcome	COMPETENT ☐ NOT YET COMPETENT ☐ Name of the Assessor: ..... Assessor's code: Signature of the Assessor:..... .....

Title of Qualification: Automotive Mechatronics	CS Code:	Level: 4	Version:
Competency Standard Title: **Service Comfort & Safety System-II**	**Assessment Date (DD/MM/YY):**		

WRITTEN ASSESSMENT

Question	Candidate's answer
42. All cruise control system being turned off when the driver__	
43. If supplementary restraint system (SRS) light is eliminated on your dashboard this safety feature in your vehicle has been active__	
44. What is the purpose of the air bag installed in the motor vehicle/	
45. Write down the component of supplementary restraint system (SRS) system?	
46. What is cruise control system?	
47. Explain the mechanism of cruise control system?	
48. What is the mean of supplementary restraint system (SRS) system?	

National Vocational and Technical Training Commission (NAVTTC)

Plot 38, Kirthar Road, Sector H-9/4, Islamabad, Pakistan
+92 51 9044 322
+92 51 9044 322
info@navttc.org
www.navttc.org