



Technical, Entrepreneurship and Vocational Education and Training Authority (TEVETA)

**CRAFT CERTIFICATE IN AUTOMOTIVE MECHANICS
(YEAR II)**

Record of Practical Assessment

Learner's Name: _____

Learner's NRC No.: _____

Learner's TEVETA No.: _____

Institution Name: _____

Institution TVA No.: _____

Assessment Period: _____

PREFACE

The Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) is an institution created under the Technical Education, Vocational and Entrepreneurship Training Act Number 13 of 1998, as amended by the Technical Education, Vocational and Entrepreneurship Training (Amendment) Act Number 11 of 2005.

The Act among other things provides that TEVETA shall:

- (a) regulate and conduct national examinations and assessments relating to technical education, vocational and entrepreneurship training;
- (b) charge and collect fees in respect of examinations, assessments and other services provided by the Authority;
- (c) award certificates to persons who succeed in examinations and assessments undertaken under this Act
- (d) do all such things connected with or incidental to the functions of the Authority under this Act.

Through this mandate, the Assessment and Qualifications Division of TEVETA has developed Practical Assessment Tool Kits to enable learners achieve the competences that are congruent with the demand of the workplace tasks. These tool kits in part are also intended to ensure that similar conditions under which all students in TEVET are assessed and examined apply wherever the course is undertaken in Zambia.

The Trainers shall work with the Learners to collect evidence of competence, using the benchmarks provided by the unit standards. During the year, the Learners shall be required to undertake a series of practical assessment tasks. It is the sum of all these assessments tasks that deems a Learner to be competent (or not).

This approach to assessment is not a one-off event but one that gives learners many opportunities to demonstrate skill and allow for the capturing and recording of these demonstrations.

For the Learner to be deemed competent, they must demonstrate competency in every aspect of the practical tasks being undertaken. It must however be understood by the Trainer that Competency does not mean expert. It means that the candidate has attained sufficient skill and knowledge to perform the activity or service to a degree and quality that is acceptable to the industry and the customer in a time within which a competent person at the level could reasonably be expected to perform the task.

While this will be undertaken at institutional level, it is therefore envisaged that the Assessment principles of VALIDITY, RELIABILITY, FAIRENESS and FLEXIBILITY shall at all times be adhered to.

Pre-Assessment

Assessment process explained to the Trainee (✓ if Yes).	<input type="checkbox"/>
Any appeal relating to the outcome of the assessment or the way in which the assessment was conducted shall be made through the TEVETA <u>fair treatment policy</u> as explained to the Trainee (✓ if Yes).	<input type="checkbox"/>

Learner/Trainee Learner/Trainee name: (Print) Learner/Trainee comments:	Assessor/Examiner Assessor/Examiner name: (Print) Assessor/Examiner comments:
I fully understand the assessment and appeals process.	Theory assessment sighted and checked as satisfactory. <input type="checkbox"/>
Signature: Date:	Signature: Date:

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TASK 1: BLEEDING BRAKE SYSTEM

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidate demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidate should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Brake fluid ○ Mutton cloth ○ Spanner/socket wrenches 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) Procedure of bleeding brakes</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Filling the reservoir with brake fluid (remember to check levels) ○ Connecting one end of the Vinyl tube to the bleed valve ○ Suspending the other end of vinyl tube into a transparent container, partly immersed into brake fluid ○ Starting bleeding from far wheel from master cylinder and finishing with the nearest. ○ Fully depressing brake pedal several times ○ With brake pedal depressed, open air bleeder valve to release air. ○ Closing air bleed valve ○ Releasing brake pedal slowly ○ Repeating steps 5 through to 8 until clear brake fluid comes out of air bleeder valve ○ Removing the transparent container ○ Removing the vinyl tube from the bleeder valve ○ Topping up the reservoir with brake fluid ○ Testing the brakes 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Examiner's comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 2: OVERHAULING OF BRAKE MATRER CYLINDER

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
	1	2	3	1	2	3
During observation of work activities, the candidates demonstrated that they can:						
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing work suit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Necessary spanners ○ Screw driver ○ Circlip pliers ○ Combination pliers 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) Removing brake master cylinder</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Disconnecting the pipes connected to the brake master cylinder. ○ Removing the nuts holding the brake master cylinder. ○ Removing the brake master cylinder from the vehicle. ○ Cleaning the brake master cylinder 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>d) Disassembling master cylinder</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Removing piston stopper bolts ○ Removing piston snap rings ○ Removing pistons 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>e) Inspecting/Checking for master cylinder parts</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Piston wear ○ Cylinder wear ○ Seal wear 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>f) Lubricating and installing cylinder parts</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Piston springs ○ Piston in the cylinder ○ Snap rings ○ Stopper bolts ○ Check valves 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

g) Fitting back the master cylinder This could include: <ul style="list-style-type: none"> ○ Putting pistons ○ putting piston snap rings ○ putting piston stopper bolts ○ Connecting the pipes to the master cylinder ○ Tightening the nuts to secure the master cylinder. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Examiner`s comments:

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Examiner Name/Sign:

Learner`s Name/sign:

Date:

Date

TASK 3: BRAKE SINGLE ACTUATING PISTON

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety boots ○ Wearing work suit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This should include: <ul style="list-style-type: none"> ○ Personal tool box ○ Set of spanners/set of socket wrenches ○ Mutton cloth ○ Paraffin ○ Flat screw driver 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) procedure and pre operational checks of single actuating piston assembly</p> <p>This should include:</p> <ul style="list-style-type: none"> ○ Cleaning brake chamber ○ Pulling the push rod ○ Clamp it in the bench vice ○ Removing the clamps holding the upper and lower housing ○ Removing the upper housing ○ Removing the diaphragm ○ Leasing the push rod clamping it from the bench vice 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>d) Assembling the single piston actuator</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Assembling the brake actuator ○ Pulling and clamping the push rod ○ Fitting back the diaphragm ○ Fitting back the upper housing ○ Fitting back the clamps ○ Tightening bolts holding the upper and lower housing ○ Unclamping it from the bench vice 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner's comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 4: BRAKE BOOSTER (TRUCK)

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Necessary spanners ○ Screw driver flat 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disassembling brake booster This should include: <ul style="list-style-type: none"> ○ Draining the air from the system ○ Disconnecting the pipe from the brake booster ○ Disconnecting all the connections from the brake booster ○ Removing the rubbers from the brake booster ○ Inspecting the components and worn out parts and rubbers 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner's comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 5: RECIRCULATING BALL STEERING

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
	1	2	3	1	2	3
During observation of work activities, the candidates demonstrated that they can:						
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ necessary spanners ○ Screw driver ○ Circlip pliers ○ Combination pliers 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) Disassembling of the recirculating ball steering type</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Loosening the lock nut on the end of the shaft ○ Turning the lash adjuster counter clock wise ○ Loosening the worm bearing adjuster and turn the sector housing ○ Removing the side cover attaching the bolts ○ Withdrawing the ball nut gear on rack and worm 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>d) Assembling the recirculating ball</p> <p>This should include:</p> <ul style="list-style-type: none"> ○ Placing the worm bearing in the worm shaft and install the adjuster ○ Rotating the worm shaft until the ball nut or gear rack is in the centre of its travel ○ Placing the sector shaft in the position, meshing it in the centre of the nut gear rack ○ Tightening the cover nuts 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner's comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 6: STEERING ADJUSTMENT

Activity/operation	Attempts					
	Satisfactory			Not Satisfactory		
	1	2	3	1	2	3
During observation of work activities, the candidates demonstrated that they can:						
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This should include: <ul style="list-style-type: none"> ○ Personal tool box ○ Necessary spanner ○ Bench vice ○ Set of spanners/sockets ○ Tyre lever 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disassembling the steering system This could include: <ul style="list-style-type: none"> ○ Removing the battery ground cable ○ Raising the vehicle the front wheels in the straight ahead position ○ Removing the pitmans shaft and the washer ○ Marking the pitmans shaft and align ○ Rotate the worm shaft fully ○ Turning the worm shaft about half a revolution ○ Connecting the torque wrench ○ Determining the specified torque adjustment 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

d) Assembling the steering system This could include: <ul style="list-style-type: none"> ○ Putting back the pits man shaft on the sector shaft ○ Aligning the marks together ○ Putting back the worm shaft ○ Torqueing the shaft accordingly. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner`s comments:

Signed:

Examiner Name/Sign:

Learner`s Name/sign:

Date:

Date:

TASK 7: BLEEDING STEERING SYSTEM

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Set of spanners/set of socket wrenches ○ Mutton cloth ○ Automatic transmission fluid ○ Draining pan ○ Choke block 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) Bleeding steering system</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Choking the vehicle ○ Applying hand brake ○ Adding power steering fluid to the reservoir ○ Opening the bleed valve ○ Checking the fluid that is coming out into the drain ○ If you notice air bubbles repeat the procedure ○ If there are no bubbles coming out close the bleed valve ○ Wipe the drain plug and test the vehicle ○ If necessary top up steering fluid. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Examiner's comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 8: RACK AND PINION

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Necessary spanners ○ Screw driver ○ Pliers ○ Combination pliers ○ Mutton cloth 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

c) Disassembling the rack and pinion This could include: <ul style="list-style-type: none"> ○ Removing the rod end from the rack ○ Removing the rubber bolt from both ends ○ Removing the pinion by untightening bolts holding it to the housing ○ Removing the rack from the housing ○ Cleaning the parts 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Assembling rack and pinion This could include: <ul style="list-style-type: none"> ○ Fitting back the rack in the housing(use grease) ○ Fitting back the pinion and tighten bolts holding it to the housing ○ Fitting back the rubber boots ○ Tightening the tire rod ends to the rack and pinion ○ Adjusting back lash and pinion height 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner's comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 9: AIR BAG SERVICING

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Necessary spanners ○ Screw driver flat ○ Ball pein hammer ○ Clamps 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>b) Disassembling air bag servicing</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Removing the air pipe connecting the air bag ○ Removing the connections of air bag to the chassis ○ Removing the air bag from its mountings ○ Removing the bolts holding the air bags 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>c) Assembling air bag servicing</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Cleaning the points supporting the air bag ○ Fitting the bolts that hold the air bag ○ Fitting the air bag in its right position ○ Loading the air bag with compressed air ○ Checking for any linkages 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner's comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 10: REPLACEMENT OF SHOCK ABSORBER

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
	1	2	3	1	2	3
During observation of work activities, the candidates demonstrated that they can:						
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing of Safety shoes/boots ○ Wearing of worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Necessary spanners ○ Screw driver flat ○ Ball peen hammer ○ Clamps 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) Disassembling the shock absorber</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Choking the vehicle from all the four wheels. ○ Loosening and removing of the bolts holding the shock absorber. ○ Removing the shock absorber. ○ Testing the shock absorber for performance 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>d) assembling and Fitting back of the shock absorber</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ clamp the shock springs in the G clamps ○ Fit back the shock absorber correctly by releasing the g clamps 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner`s comments:

Signed:

Examiner Name/Sign:

Learner`s Name/sign:

Date:

Date:

TASK 11: LEAF SPRING

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
	1	2	3	1	2	3
During observation of work activities, the candidates demonstrated that they can:						
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ necessary spanners ○ Screw driver 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Procedure of dismantling the leaf spring This could include: <ul style="list-style-type: none"> ○ Blocking the vehicle ○ Removing the wheel ○ Removing the shock absorber ○ Loosening the U bolts ○ Removing the swinging shackle ○ Removing the spring assembly from the axle 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>d) Assembling the leaf spring</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Putting back the spring on the axle ○ Fitting back the swinging shackle ○ Tightening the U bolts ○ Fitting back the shock absorber ○ fitting back the wheel 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Examiner's comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 12: REMOVING THE FRONT WHEEL HUB

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing work suit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Set of spanners/set of socket wrenches ○ Mutton cloth ○ Water pump pliers ○ Jack ○ Axle stand 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) Removing rear wheel hub</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Choking the vehicle ○ Loosening the wheel nuts ○ Jacking up the vehicle ○ Putting the vehicle on the axle stands ○ Removing the wheel nuts and the front wheels ○ Removing the screws holding the wheel drum ○ Removing the wheel drum ○ Removing the cotter pin ○ Loosening the nut and remove it ○ Removing the washer ○ Removing the outer taper roller bearing ○ Removing rear wheel hub together with the inner taper roller bearing ○ Inspecting the taper roller bearings for wear ○ Assembling is the reverse of disassembling 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Examiner's comments:

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TASK 13: REMOVING THE FRONT WHEEL HUB (SMALL VEHICLE)

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing work suit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Set of spanners/set of socket wrenches ○ Mutton cloth ○ Water pump pliers ○ Jack ○ Axle stand 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) Removing front wheel hub</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Choking the vehicle ○ Loosening the wheel nuts ○ Jacking up the vehicle ○ Removing the wheel nuts and the front wheels ○ Removing the cap ○ Removing the grease around the nut ○ Removing the cotter pin ○ Loosening the nut and remove it ○ Removing the washer ○ Removing the outer taper roller bearing ○ Removing rear wheel hub/disc together with the inner taper roller bearing ○ Inspecting the taper roller bearings for wear ○ Assembling is the reverse of disassembling 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Examiner's comments:

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TASK 14: BALL JOINT SERVICE

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ necessary spanners ○ Screw driver flat ○ Jack ○ Axle stands 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Removing the ball joint This could include: <ul style="list-style-type: none"> ○ Choking the vehicle ○ Loosening the front wheel nuts ○ Jacking up the front part of the vehicle ○ Fitting the axle stands ○ Removing the front wheel ○ Loosen the nut securing the ball joint ○ Using the ball joint remover remove the ball joint ○ Removing the tie rod (ball joint) 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>d) Fitting back the ball joint</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Fitting the new tie rod end ,taking note of the original length of the tie rod ○ Fitting the ball joint ○ Tightening the nut ○ Fitting back the road wheels ○ Jacking up the vehicle ○ Removing the axle stands 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Examiner`s comments:

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TASK 15: FOUR WAY DISTRIBUTION VALVE (DISTRIBUTION VALVE)

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ necessary spanners ○ Screw driver flat ○ Pliers 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Removing the four way valve This could include: <ul style="list-style-type: none"> ○ Disconnecting the pipes to the four way valve ○ Removing the four way valve from its mounting ○ Disconnecting the nuts connecting the circuit ○ Removing the kits / seals from the circuits 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>d) Fitting back of the four way valve</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Cleaning the components using paraffin and water ○ Taking the components for blowing with compressed air. ○ Fitting the kits/seals to the circuits. ○ Connecting the lower and upper parts together ○ Fitting the components back to its mounting ○ Connecting the pipes 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Learner's Name/sign:

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TASK 16: SERVICING THE COMPRESSOR

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Necessary spanners ○ Screw driver flat 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disassembling the compressor This could include: <ul style="list-style-type: none"> ○ Disconnecting the pipes from the compressor ○ Removing the compressor from the engine block ○ Removing the ring from the compressor ○ Inspecting the worn out parts and replacing where necessary 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Assembling the compressor This could include: <ul style="list-style-type: none"> ○ Replacing new parts such as seals ○ Fitting the piston in the cylinder and housing ○ Fitting the compressor to the cylinder block 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

○ Connecting the pipes to the compressor.						
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Examiner`s comments:

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Learner`s Name/sign:

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TASK 17: SERVICING THE FLY WHEEL

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Necessary spanners ○ Screw driver flat ○ Ball pein hammer ○ Clamps 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disassembling the flywheel This could include: <ul style="list-style-type: none"> ○ Removing the fly wheel from the flange ○ Cleaning the fly wheel ○ Heating the ring gear(it will expand) ○ Removing the ring gear 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Assembling flywheel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>This could include:</p> <ul style="list-style-type: none"> ○ Heating the ring gear using gas cylinder ○ The ring gear will expand ○ Fitting it on the fly wheel ○ Letting it cool down ○ It will be contracting after cooling down 						
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Examiner`s comments:

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Learner`s Name/sign:

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TASK 18: CLUTCH SLAVE CYLINDER SERVICING

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe the safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Necessary spanners ○ Screw driver flat ○ Clutch aligner ○ Circlip pliers 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Clutch slave cylinder servicing This could include: <ul style="list-style-type: none"> ○ Removing the slave cylinder from the vehicle ○ Cleaning the slave with cleaning detergent and water ○ Blowing the slave cylinder with compressed air ○ Removing the Circlip from the back of the slave 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

cylinder <ul style="list-style-type: none"> ○ Removing the pistons, followed by the piston kits ○ Cleaning the pistons, springs and slave cylinder housing 						
d) Assembling the slave cylinder This could include: <ul style="list-style-type: none"> ○ Fitting the kits to the pistons ○ Fitting the springs in the housing for the slave cylinder ○ Fitting the piston into the slave cylinder fit the rod, Circlip, and finally the whole assembly to the bell housing 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner`s comments:

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Examiner Name/Sign:

Learner`s Name/sign:

Date:

Date

TASK 19: CLUTCH SERVICING

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ necessary spanners ○ Screw driver flat ○ Clutch aligner ○ Circlip pliers 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Procedure of Removing clutch from the Vehicle This could include: <ul style="list-style-type: none"> ○ Cleaning the clutch housing using the compressed air ○ Removing the bolts holding the clutch ○ Inspecting the clutch plate pressure plate and thrust bearing 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>d) Procedures of assembling the clutch</p> <p>This should include:</p> <ul style="list-style-type: none"> ○ Fitting the clutch plate pressure plate using the clutch aligning tool ○ Fitting back the fly wheel ○ Tightening the clutch plate pressure plate and thrust bearing ○ Making sure that the clutch unit is properly aligned when tightening the pressure plate to the fly wheel. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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Examiner`s comments:

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TASK 20: GEAR BOX

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Set of spanners/set of socket wrenches ○ Mutton cloth ○ Paraffin ○ Tyre lever ○ Ball peen hammer ○ Flat screw driver ○ Pin punches 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) Disassembling the gear box</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Cleaning the gear box ○ Loosening the bell housing bolts ○ Removing the front and rear bearings for the lay shaft ○ Removing the input shaft ○ Removing the output shaft ○ Disassemble all the gears on the output shaft 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>d) Assembling of the gear box</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Assembling the gears on the out put shaft, input shaft and the layshaft and fitting back on the gear box ○ Fitting back the bell housing on the gearbox ○ Fitting back the locker ○ Fitting the gear lever back on the gear box. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner's comments:

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Examiner Name/Sign:

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TASK 21: TRANSFER CASE

Activity/operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Spanners/Socket wrenches ○ Mutton cloth ○ Ball pein hammer 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disassembling Transfer case This could include: <ul style="list-style-type: none"> ○ Cleaning the transfer case cover ○ Removing the top cover ○ Removing the input shaft of the crankcase ○ Dropping the lay shaft by removing the bearing supporting the lay shaft ○ Removing the gears from the main shaft 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Assembling transfer case	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>This should include:</p> <ul style="list-style-type: none"> ○ Cleaning the components /parts ○ Assembling gears of the main shaft ○ Fitting the lay shaft in the casing and insuring that the bearings are holding properly ○ Fitting the main shaft in the casing ○ Fitting the input shaft and insuring that gears are rotating properly ○ Fitting the top cover and do all the necessary connections 						
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TASK 22: DISASSEMBLE AND ASSEMBLE A TORQUE CONVERTER

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Set of spanners/set of socket wrenches ○ Mutton cloth ○ Water pump pliers ○ Vice 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) Disassembling torque convertor</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Securing torque converter in a vice ○ Undoing and removing mounting bolts securing drive plate and impeller housing ○ Separating the drive plate from impeller housing ○ Removing the stator from the torque converter ○ Removing the output shaft ○ Removing the turbine 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>d) Subject related questions</p> <p>This could include:</p> <p>Explaining the operation of the torque converter during:</p> <ul style="list-style-type: none"> ○ Coupling point ○ Torque multiplication 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>e) Assembling Torque convertor</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Installing turbine ○ Installing output shaft ○ Correcting Installation of the stator ○ Aligning threaded holes on the impeller housing with the hole on the drive plate. ○ Inserting and tightening all mounting bolts to the specified torque. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner`s comments:

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TASK 23: CHANGING AUTOMATIC TRANSMISSION FLUID FILTER ON THE TRANSMISSION

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
d) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing work suit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Set of spanners/set of socket wrenches ○ Mutton cloth ○ Jack 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>f) Removing of the filter</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Using a suitable jack support the vehicle so that work can be done easily on the bottom of the transmission ○ Draining the transmission fluid into a suitable container by loosening the oil pan and letting the transmission fluid drain out ○ If drain plug or filler tube are connected these can be removed ○ Removing the oil filter and replacing it with a new one ○ Replacing the oil filter and gaskets in their proper positions ○ To reassemble reverse the preceding procedure 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Examiner`s comments:

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TASK 24: AUTOMATIC TRANSMISSION SERVICE –FRONT SEAL REPLACEMENT

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
g) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing work suit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Set of spanners/set of socket wrenches ○ Mutton cloth ○ Flat screw driver ○ Jack ○ Axle stands 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>i) Removing the front seal</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Disconnecting the ground cable on the battery ○ Removing the transmission dipstick ○ Jacking up the vehicle ○ Supporting the vehicle on axle stands ○ Removing the drive shaft from between the transmission and the differential. On front wheel drive vehicles remove the front axles. ○ Removing the shift linkage connected to the transmission ○ Removing and marking all electrical connections to the transmission ○ Removing the transmission cooler lines ○ Removing the speedometer cable ○ Removing any vacuum connections to the transmission and mark for assembly. ○ Removing the drain the fluid from the transmission ○ Removing the flywheel under cover ○ Removing the bolts holding the torque converter to the flywheel. ○ Marking the flywheel and converter for reference during installation ○ Jacking up the rear of the engine using a suitable jack ○ Removing the .transmission mount from the transmission 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<ul style="list-style-type: none"> ○ Placing a transmission stand under the transmission to support it once it has been disconnected from the engine block ○ Supporting the engine while the transmission is removed from the engine ○ Lowering the engine slowly until the bolts between the transmission torque converter housing and the block of the engine can be removed ○ Slowly lowering the transmission jack stand and the transmission away from the engine 						
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Examiner`s comments:

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Learner`s Name/sign:

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TASK 25: PROPELLER SHAFT

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Necessary spanners ○ Screw driver flat ○ Ball pein hammer ○ Circlip pliers 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Procedure of removing propeller shaft from the Vehicle This could include: <ul style="list-style-type: none"> ○ Choking the vehicle to prevent it from moving. ○ Marking the propeller shaft so that it is returned on the same position. ○ Loosening and removing the bolts holding the propeller shaft. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<ul style="list-style-type: none"> ○ Removing the propeller shaft ○ Cleaning the propeller shaft. 						
d) Servicing the universal joint This could include: <ul style="list-style-type: none"> ○ Removing the universal joint ○ Checking the York and the spider ○ Lubricating all the universal joint parts ○ Fitting back the universal joint to the propeller shaft 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) procedures and pre operational checks of assembling the propeller shaft This could include: <ul style="list-style-type: none"> ○ Fitting back the propeller to the vehicle following the marks. ○ Checking/inspecting for wear of the universal joints. ○ Identifying the other parts of the propeller shaft such as the sliding joint, universal joint. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner's comments:

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Examiner Name/Sign:

Learner`s Name/sign:

Date:

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TASK 26: DIFFERENTIAL UNIT

Activity/ operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This should include: <ul style="list-style-type: none"> ○ Personal tool box ○ Dual indicator ○ Spring balance ○ Bench vice ○ Set of spanners/sockets 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disassembling of the differential Unit This could include: <ul style="list-style-type: none"> ○ Cleaning the differential unit ○ Removing the nuts on the pinion casing ○ Removing the pinion ○ Removing the sun gears 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

d) Assembling of the differential unit This could include: <ul style="list-style-type: none"> ○ Cleaning the components ○ Assembling the sun gears ○ Assembling the pinion to the casing ○ Tightening the nut on the pinion ○ Fitting back the nuts on the pinion and assemble the main differential unit. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Examiner's comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 27: REMOVING THE HALF SHAFTS AND DIFFERENTIAL UNIT FROM A FULLY FLOATING AXLE

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing work suit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Set of spanners/set of socket wrenches ○ Mutton cloth ○ Water pump pliers 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) Dismantling Procedure</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Choke the vehicle ○ Loosen the bolts securing the half shafts ○ Remove the bolts and pull out the half shafts ○ Remove the bolts securing the propeller shaft ○ Remove the bolts securing the centre bearing ○ Remove the centre bearing ○ Remove the propeller shaft from the vehicle ○ Loosen the bolts securing the differential unit ○ Remove the differential unit ○ Inspect the half shafts and the differential unit for wear. ○ To install the transmission, reverse the removal process. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Examiner`s comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 28: FULL FLAOTING REAR HUB ASSEMBLY

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidates demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing Safety shoes/boots ○ Wearing work suit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidates should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Set of spanners/set of socket wrenches ○ Mutton cloth ○ Paraffin ○ Tyre lever ○ Ball peen hammer ○ Flat screw driver ○ Torque wrench 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>c) Disassembling of the rear hub assembly</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Removing the nuts holding the axle flange to the wheel hub ○ Removing the locker nut and plate ○ Removing the bearing adjusting nut and washer ○ Identifying the type of axle and trace the path weight ○ Cleaning each and every part 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>d) Reassembling of the rear hub assembly</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Fitting back the bearing adjusting nut and washer ○ Fitting back the locker nut and plate ○ Fitting back the axle and the nuts holding the flange of the wheel hub ○ Fitting back the wheel assembly 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner's comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 29: SERVICING WHEEL ASSEMBLY

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidate demonstrated that they can:	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidate should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Wheel spanner ○ Jack ○ Axle stands ○ Chock blocks 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

c) Procedure of removing the wheel This could include: <ul style="list-style-type: none"> ○ Choking the vehicle from all the four wheels ○ Loosening the wheel nuts of the wheel to be removed. Follow correct procedure. Loosening them diagonally. ○ Jacking up the vehicle, side to be removed only. ○ Fitting the axle stand. ○ Removing the wheel nuts completely. ○ Removing the wheel. ○ Checking the threads on the wheel sheds and the nuts. If they are worn out replace them. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Tube inspection This could include: <ul style="list-style-type: none"> ○ Removing the tube from wheel 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Fitting back the wheel assembly This could include: <ul style="list-style-type: none"> ○ Tightening the wheel nuts diagonally ○ Jacking up the vehicle and remove the axle stand. ○ Removing the jack and tighter the wheel nuts again to the correct specification. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Examiner's comments:

Signed:

Examiner Name/Sign:

Learner's Name/sign:

Date:

Date:

TASK 30: REMOVING AND FITTING WHEEL ASSEMBLY- DYNAMIC BALANCING

Activity/Operation	Attempts					
	Satisfactory			Not Satisfactory		
During observation of work activities, the candidate demonstrated that they can	1	2	3	1	2	3
a) Observe safety This should include: <ul style="list-style-type: none"> ○ Wearing safety shoes/boots ○ Wearing worksuit or overall 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Candidate should prepare appropriate tools/equipment This could include: <ul style="list-style-type: none"> ○ Personal tool box ○ Balancing machine ○ Balancing weights ○ Wheel spanner ○ Jack ○ Brake fluid ○ Axle stands ○ Chock blocks 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Carrying out the required start-up procedures and pre-operational checks. This should include: <ul style="list-style-type: none"> ○ Preparation of work area ○ Appropriate use of tools/equipment ○ Preparation of tools and measuring equipment 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>d) Procedure of removing the Wheel</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Choking the vehicle from all the four wheels ○ Loosening the wheel nuts of the wheel to be removed. Follow correct procedure. Loosen them diagonally. ○ Jacking up the vehicle, side to be removed only. ○ Fitting the axle stand. ○ Removing the wheel nuts completely. ○ Removing the wheel. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>e) Wheel balancing procedure</p> <p>This could include:</p> <ul style="list-style-type: none"> ○ Checking tyre pressure ○ Mounting wheel on the balancing machine ○ Switching on the machine to spin the wheel in order to calculate where the imbalances are: (heavy spots) ○ Switching off the machine ○ The wheel machine will show/indicate where to put balancing weight. (either clipping onto the edge of the rim or stuck on the rim) ○ After putting the weights, run the machine again ○ Removing the wheel when the reading shows zero ○ Removing the wheel from the machine 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

f) Fitting back the wheel assembly This could include: <ul style="list-style-type: none"> ○ Tightening the wheel nuts diagonally ○ Jacking up the vehicle and remove the axle stand. ○ Removing the jack and tighter the wheel nuts again to the correct specification. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Examiner`s comments:

Signed:

Examiner Name/Sign:

Learner`s Name/sign:

Date:

Date:

FINAL PRACTICAL ASSESSMENT SUMMARY

TASK NO.	TASK NAME	SATISFACTORY	NOT SATISFACTORY
1	BLEEDING BRAKES	<input type="checkbox"/>	<input type="checkbox"/>
2	MASTER CYLINDER SERVICING	<input type="checkbox"/>	<input type="checkbox"/>
3	BRAKE SINGLE ACTUATOR	<input type="checkbox"/>	<input type="checkbox"/>
4	BRAKE BOOSTER	<input type="checkbox"/>	<input type="checkbox"/>
5	RECIRCULATING BALL SERVICING	<input type="checkbox"/>	<input type="checkbox"/>
6	STEERING ADJUSTMENT	<input type="checkbox"/>	<input type="checkbox"/>
7	BLEEDING STEERING SYSTEM	<input type="checkbox"/>	<input type="checkbox"/>
8	RACK AND PINION	<input type="checkbox"/>	<input type="checkbox"/>
9	AIR BAG SERVICING	<input type="checkbox"/>	<input type="checkbox"/>
10	SHOCK ABSORBER	<input type="checkbox"/>	<input type="checkbox"/>
11	LEAF SPRING	<input type="checkbox"/>	<input type="checkbox"/>
12	REMOVE FRONT WHEEL HUB (HEAVY VEHICLES)	<input type="checkbox"/>	<input type="checkbox"/>
13	REMOVE FRONT WHEEL HUB (SMALL CARS)	<input type="checkbox"/>	<input type="checkbox"/>
14	BALL JOINT SERVICE	<input type="checkbox"/>	<input type="checkbox"/>
15	FOUR WAY DISTRIBUTOR VALVE (DISTRIBUTOR VALVE)	<input type="checkbox"/>	<input type="checkbox"/>
16	COMPRESSOR SERVICING	<input type="checkbox"/>	<input type="checkbox"/>
17	SERVICING THE FLY WHEEL	<input type="checkbox"/>	<input type="checkbox"/>
18	CLUTCH SLEEVE CYLINDER	<input type="checkbox"/>	<input type="checkbox"/>
19	CLUTCH SERVICE	<input type="checkbox"/>	<input type="checkbox"/>
20	GEAR BOX SERVICING	<input type="checkbox"/>	<input type="checkbox"/>
21	TRANSFER CASE	<input type="checkbox"/>	<input type="checkbox"/>
22	TORQUE CONVERTOR	<input type="checkbox"/>	<input type="checkbox"/>
23	CHANGING AUTOMATIC TRANSMISSION FLUID	<input type="checkbox"/>	<input type="checkbox"/>
24	AUTOMATIC TRANSMISSION FRONT SEAL REPLACEMENT	<input type="checkbox"/>	<input type="checkbox"/>
25	PROPELLER SHAFT SERVICING	<input type="checkbox"/>	<input type="checkbox"/>
26	DIFFERENTIAL UNIT	<input type="checkbox"/>	<input type="checkbox"/>
27	REMOVING HALF SHAFT	<input type="checkbox"/>	<input type="checkbox"/>
28	FULLY FLOATING HUB	<input type="checkbox"/>	<input type="checkbox"/>
29	WHEEL ASSEMBLY	<input type="checkbox"/>	<input type="checkbox"/>
30	WHEEL BALANCING	<input type="checkbox"/>	<input type="checkbox"/>

Assessor/Examiners comments:

ASSESSMENT OUTCOME

Competent ☒
Not Competent ☐

Learner/Trainee	Assessor/Examiner
Learner/Trainee name: _____ (Print)	Assessor/Examiner name: _____ (Print)
Learner/Trainee comments:	Assessor/Examiner comments:
Signature: _____ Date: _____	Signature: _____ Date: _____

VALIDATION OF THE ASSESSMENT

NAME:.....

DATE:.....

POSITION: **PRINCIPAL/HEAD OF INSTITUTION** SIGNATURE:.....

NAME INSTITUTION:.....

STAMP:

