

071604T4AUT

AUTOMOTIVE TECHNOLOGY LEVEL 4

ENG/OS/AUT/CR/6/4

SERVICE VEHICLE BRAKING SYSTEM

July/August 2024



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

WRITTEN ASSESSMENT

TIME: 2 HOURS

INSTRUCTIONS TO THE CANDIDATE

1. This paper consists of **TWO** sections; **A** and **B**
2. Attempt **ALL** questions in both sections.
3. Marks for each question are indicated.
4. You are provided with a separate answer booklet.
5. Do not write on the question paper.

This paper consists of FOUR (4) printed pages
Candidates should check the question paper to ascertain that all pages are printed as
indicated and that no question is missing.

Turn over

SECTION A: (10 MARKS)

Attempt all questions in this section. Each question carries 1 Mark.

1. What is the function of braking system?
 - A. Start the vehicle
 - B. Change direction of the vehicle
 - C. Stop the vehicle
 - D. Source of power
2. Which one of the following is not necessarily worn when servicing braking system?
 - A. Safety boots
 - B. Helmet
 - C. Overall
 - D. Gloves
3. All of the following factors can lead to brake failure, except?
 - A. Overheating of brake components
 - B. Worn brake pads
 - C. Excessive brake pedal pressure
 - D. Over filling brake fluid in the master cylinder
4. What is the purpose of brake pads in disc brake system?
 - A. To provide friction against the disc so as to slow down the vehicle
 - B. To amplify the force applied by the brake pedal
 - C. To convert kinetic energy into heat energy
 - D. To cool the brake disc
5. Select the component of the braking system that converts hydraulic pressure of the fluid into mechanical force to stop the vehicle.
 - A. Brake pads
 - B. Master cylinder
 - C. Brake calliper
 - D. Piston
6. The following are components of a drum brake. Which one is not?
 - A. Linings
 - B. Adjuster

- C. Caliper
 - D. Wheel cylinder
7. Three of the choices mentioned below are brake faults, choose the odd one out.
- A. Spongy brakes
 - B. Fluid leakage
 - C. Brake fade
 - D. Brake booster
8. The hand brake is also known as _____
- A. Parking brake
 - B. Stopping brake
 - C. Brake support
 - D. Brake servo
9. Which component transfers hydraulic pressure from the master cylinder to the brake shoes in a drum brake assembly?
- A. Wheel cylinder
 - B. Brake pads
 - C. Brake shoe
 - D. Brake calliper
10. _____ cannot be inspected for wear in disc brakes.
- A. Brake pads
 - B. Brake disc
 - C. Brake caliper
 - D. Piston seals

SECTION B: (40 MARKS)***Attempt ALL questions in this section***

11. State **four** advantages of disc over drum brakes. (4 Marks)
12. Outline any **four** quality requirements of a good brake fluid to be used in a vehicle. (4 Marks)
13. A vehicle has been brought to your workshop for brake adjustments, highlight any **three** safety precautions to be observed when working on the vehicle braking system. (3 Marks)
14. Outline any **four** areas that should be checked when servicing brakes. (4 Marks)
15. A disc brake employs frictional pads rubbing against a disc which is attached to the wheel. State any **five** signs of worn-out disc brakes. (5 Marks)
16. Highlight at least **four** possible causes of a vehicle with a hard brake pedal. (4 Marks)
17. State **five** components of drum brakes. (5 Marks)
18. A car is brought to the workshop with loss of brake fluid. Outline any **two** causes and their possible remedies. (4 Marks)
19. List four causes of the brake pedal reaching the floor when fully pressed. (4 Marks)
20. Drums brakes are commonly used in rear wheels of most vehicles. State **three** conditions that the brake linings should meet. (3 Marks)

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