

# Unit 9 - Week 8

## Course outline

How does an NPTEL online course work?

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Components of a Brake System and Drum Brake - Part 01

Components of a Brake System and Drum Brake - Part 02

Disc Brake and Introduction to Hydraulic Brake - Part 01

Disc Brake and Introduction to Hydraulic Brake - Part 02

Hydraulic Brake System - Part 01

Hydraulic Brake System - Part 02

Quiz : Assignment 8

Week 8 Feedback

Solution - Assignment 8

Week 9

Week 10

Week 11

Week 12

Lecture Material

Download Videos

## Assignment 8

The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.

**Due on 2020-03-25, 23:59 IST.**

1) Which one of the following is not a source of energy in automotive brake systems? 1 point

- Human effort.
- Mechanical links.
- Compressed air.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Mechanical links.

2) Which energy transmitting medium is predominantly used in a heavy truck brake system? 1 point

- Incompressible brake fluid.
- Compressed air.
- Mechanical links.
- Electric current.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Compressed air.

3) Which one of the following is a significant positive attribute of a drum brake system? 1 point

- Self energization.
- Brake drum expansion.
- Higher sensitivity to brake lining friction coefficient.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Self energization.

4) The relationship between the brake factor of a drum brake and its brake lining friction coefficient is 1 point

- linear.
- nonlinear.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
nonlinear.

5) The brake factor of a duo servo drum brake is 1 point

- higher than that of a leading-trailing shoe brake and lower than that of a two-leading shoe brake.
- lower than that of a leading-trailing shoe brake and higher than that of a two-leading shoe brake.
- higher than both that of a leading-trailing shoe brake and a two-leading shoe brake.
- lower than both that of a leading-trailing shoe brake and a two-leading shoe brake.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
higher than that of a leading-trailing shoe brake and lower than that of a two-leading shoe brake.

6) Which one of the following is a limitation of a disc brake when compared with a drum brake? 1 point

- It has lower sensitivity to brake lining friction coefficient.
- It has better heat dissipation characteristics.
- It is less sensitive to temperature increase.
- It requires more actuation force to obtain a desired brake force.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
It requires more actuation force to obtain a desired brake force.

7) What among the following is not a reason for choosing a disc brake in the front wheels of most passenger cars? 1 point

- More normal load is available on the front wheels.
- More potential brake force is available on the front wheels.
- Disc brake has a lower brake factor.
- The output brake force from a disc brake varies less with friction lining coefficient.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Disc brake has a lower brake factor.

8) The component of a hydraulic brake system where the mechanical force is converted to a fluid pressure is the 1 point

- vacuum booster.
- master cylinder.
- metering valve.
- proportioning valve.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
master cylinder.

9) In a hydraulic brake system, the force input provided by the driver is augmented by a 1 point

- vacuum booster.
- wheel cylinder.
- master cylinder.
- proportioning valve.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
vacuum booster.

10) The component that alerts the driver if there is a loss of pressure in either circuit of a hydraulic brake system is the 1 point

- Proportioning valve.
- Metering valve.
- Pressure differential switch.
- Wheel cylinder.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Pressure differential switch.

11) Which one of the following is not a desirable property of brake fluids? 1 point

- High boiling point.
- High compressibility.
- Low toxicity.
- Good lubricating property.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
High compressibility.

12) Which one of the following statements is true? 1 point

- Glycol based brake fluids have low compressibility and non-hygroscopic.
- Glycol based brake fluids have high compressibility and non-hygroscopic.
- Silicone based brake fluids are hygroscopic and have low compressibility.
- Silicone based brake fluids are non-hygroscopic and have high compressibility.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Silicone based brake fluids are non-hygroscopic and have high compressibility.

13) The component of a brake lining that provides rigidity and strength to it is the 1 point

- filler.
- fiber.
- friction modifier.
- binder.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
fiber.

14) Which one of the following is not used as filler in brake linings? 1 point

- Barytes.
- Calcium carbonate.
- Clay.
- Steel wool.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Steel wool.