

Automotive Technology 7th Edition
Chapter 130: Hydraulic Components and Control Systems
Short Answer Quiz

Name:

Date:

1. Describe the role of the automatic transmission fluid (ATF) cooler and explain how it functions in different temperature conditions.
2. Explain the operational differences between a fixed displacement pump and a variable displacement pump in the context of automatic transmissions.
3. Discuss the significance of the manifold absolute pressure (MAP) sensor and the mass airflow (MAF) sensor in determining the optimal shift points in an automatic transmission.
4. Detail the process by which electronic pressure regulation is achieved in modern automatic transmissions and the components involved in this process.
5. Describe the function of accumulators in automatic transmissions and how they contribute to the driving experience.

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6. Explain the construction and function of a multiple-plate clutch assembly within an automatic transmission and how it engages to transfer power.

7. Discuss the purpose of speed sensors in an automatic transmission and how they contribute to the vehicle's performance and diagnostic systems.

8. Describe the function of the transmission fluid temperature (TFT) sensor and its impact on the operation of the transmission under varying temperature conditions.

9. Explain the concept of a "rooster comb" in an automatic transmission and its role in the valve body's operation.

10. Compare and contrast hydraulically controlled and electronically controlled automatic transmissions, focusing on how they manage shift points and overall transmission control.