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.

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2. Explain the operational differences between a fixed displacement pump and a variable displacement pump in the context of automatic transmissions.

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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.

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4. Detail the process by which electronic pressure regulation is achieved in modern automatic transmissions and the components involved in this process.

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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.

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

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

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

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

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