

Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1) What type of vehicles use two dry clutches?

2) What sensors are used in a typical dual clutch automatic transaxle?

3) What are the benefits of using a dual-clutch automatic compared to a conventional automatic?

4) How is a shift made from first to second on a dual clutch automatic transmission?

5) What are the disadvantages of a dual clutch automatic transmission?

6) What are the two designs of wet clutches?

Answer Key

Testname: ATT7_SHORT12

1) Dual dry clutches are used in low powered vehicles such as small front-wheel-drive vehicles.

Page Ref: 178

2) The sensors used in a typical dual clutch automatic transaxle include:

- Speed sensors
- Temperature sensors
- Pressure sensors
- Position sensors

Page Ref: 181-182

3) The advantages of a dual clutch automatic transmission/transaxle compared to a conventional Automatic transmission includes:

- Quicker throttle response
- No drop in engine speed when the driver releases the throttle
- Instant gear changes
- Improved fuel economy

Page Ref: 179

4) The shift from first to second includes the following actions:

STEP 1 Clutch 1 is on and drives the inner shaft.

STEP 2 Second gear control device is pressurized to get ready to shift to second gear.

STEP 3 Clutch 2 is starting to be filled with hydraulic pressure (both clutches work at the same time during shifting).

STEP 4 First gear torque delivery through clutch 1 is being reduced as clutch 2 is being applied and starting to transmit engine torque.

Page Ref: 180

5) The disadvantages of a dual clutch automatic transmission/transaxle compared to conventional or continuously variable automatic transmissions include:

- No torque multiplication advantage of a torque converter
- Not as fuel efficient as a continuously variable transmission (CVT) or transaxle

Page Ref: 179

6) • A concentric clutch (also called a nested-type clutch) is a design where both plates share the same vertical plane and provides a shorter assembly.

- A parallel clutch design is used in a side-by-side arrangement.

Page Ref: 179