Automotive Steering, Suspension, and Alignment, 8th Edition
Chapter 6

Name_____

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

1) What needs to be done with a planetary gear set to achieve neutral?

_____
_____
_____

2) What type of gears do the Hondamatic and the Saturn transaxle automatic transmission (TAAT) use?

_____
_____
_____

3) What is the difference between a non-synchronous and synchronous design?

_____
_____
_____
_____
_____
_____
_____
_____
_____

4) In a planetary gear set, what needs to be done to achieve the various gear ratios and reverse?

_____
_____
_____
_____
_____
_____

5) How is a 1:1 ratio achieved using a planetary gear set?

_____
_____
_____

1) If no member is held (locked), then there is no output (neutral).
Page Ref: 73

2) The Hondamatic and the Saturn transaxle automatic transmission (TAAT) use constant-mesh helical gears, much like those in a manual transmission like those in a manual transmission.
Page Ref: 91

3) A synchronous design transmission means that during an upshift, the new driving or reaction member must be timed or synchronized with the release of a driving or reaction member. The band used in synchronous designs must be released at an exact time for the upshift, and it must reapply at the exact time during a downshift. Nonsynchronous transmission is a unit that uses a one-way clutch to allow an upshift that requires only the application of the next driving or reaction member.
Page Ref: 76

4) In a planetary gear set, the following operations are done in order to achieve the various gear ratios and reverse.
- One of the members is being driven (input).
- One of the members is being held (reaction member).
- One of the members is the output.

Page Ref: 70

5) If any two members are locked together, then the resulting output is 1:1 ratio in the same direction as the input.
Page Ref: 73