ANSWER KEY TO THE BACKFLOW PREVENTION QUIZ

1. TRUE, a cross-connection is any direct or indirect connection that could possibly join a potable and nonpotable or unknown source and the transfer of a contaminate or pollutant could occur via back- siphonage or backpressure.

2. TRUE, backflow is a reverse flow in the plumbing system that is opposite to the expected or intended direction. Backflow can be caused by backpressure or back-siphonage.

3. FALSE, backpressure can occur through a direct cross-connection (not indirect) when the “other” system’s pressure exceeds that of the potable water supply. Flow will occur in the direction of lower pressure (least resistance), from higher pressure to lower pressure.

4. FALSE, backpressure can only influence a potable system via a direct connection. Remember, a direct connection can be subject to backpressure and back-siphonage. An indirect connection is only subject to back-siphonage.

5. TRUE, a dual check valve can not be tested and the unit is not vented to the atmosphere. Many times, but not always, a vented device will leak when one of the check valves fail.

6. TRUE, a PVB is approved for high hazard, continuous pressure and NO POTENTIAL BACKPRESSURE.

7. TRUE, all shut off valves must be installed on the supply side of the AVB, otherwise the device would be subjected to continuous pressure, which the device is not approved for.

8. FALSE, air gap is the vertical, unobstructed air space between the flood level rim of a fixture an the supply inlet. Air break is the vertical air space or separation between a waste line and floor drain or floor sink. Air breaks are installed to prevent sewage back-ups from entering food preparation equipment and sinks.

9. FALSE, a hose is a typical INDIRECT cross-connection, not a direct cross-connection.

10. TRUE, HBVB’s are not approved for continuous pressure - water pressure on both side of the vacuum breaker for more than 12 hours.

11 FALSE, the RPZ is the “best” device available for high hazard, continuous pressure, backpressure, back-siphonage conditions. The device is testable and even protects the supply if the unit fails (check valves foul). The “fool proof” or most desirable method of preventing backflow is the “air gap”. It is simple and nonmechanical.

12. FALSE, the PVB is to be installed at least 12 inches above the highest inlet down stream and conversely the AVB is 6 inches above the highest down stream inlet or flood level rim.

13. FALSE, the RPZ, PVB and double check valve assemblies can be tested. Dual check valves with intermediate atmospheric vents can not be tested.

14 TRUE, a vented backflow device submerged in a pit full of water could permit this nonpotable water to be drawn into the potable supply under back-siphonage conditions. Also, under static conditions the vent chamber could fill with the pit water and affect up stream or down stream under various water flow conditions.

15. TRUE, a submerge inlet is an inlet that terminates below the flood level rim of a fixture. If a situation necessitates a submerged inlet, then the cross-connection must be protected with an appropriate backflow device.

16. FALSE, the barometric loop only provides protection against back-siphonage. An absolute vacuum can only “pull” water up a column 33.9 feet, therefore, only backpressure can create adequate pressure to go up and over the column.

17. C., all shut off devices must be on the supply side of the AVB and be accessible.