1. What is the main role of the service brake valve in an air brake system?

   (A) To control the application of the brakes by regulating air pressure
   (B) To maintain constant pressure in the air reservoirs
   (C) To provide a backup for the emergency brake system
   (D) To monitor the temperature of the brake components

2. Technician A claims that the air brake system's primary reservoir is responsible for supplying air to the service brakes, while Technician B states that the secondary reservoir is used exclusively for emergency braking. Who is correct?

   (A) Technician A.
   (B) Technician B.
   (C) Both A and B.
   (D) Neither A nor B.

3. Technician A states that the primary function of the air dryer in an air brake system is to remove moisture from the compressed air before it enters the reservoirs. Technician B claims that the air dryer also helps in maintaining the correct pressure levels in the air brake system. Who is correct?

   (A) Technician A only
   (B) Technician B only
   (C) Both A and B
   (D) Neither A nor B

4. Technician A claims that the secondary section of a dual circuit foot valve operates pneumatically during standard braking conditions. Technician B asserts that the primary section of a foot valve is activated pneumatically under normal operation. Who is correct?

   (A) Technician A only
   (B) Technician B only
   (C) Both A and B
   (D) Neither A nor B

5. What is the primary purpose of a relay valve in an air brake system?

   (A) To increase the air pressure in the system.
   (B) To control the application and release of the brakes.
   (C) To monitor the temperature of the air supply.
   (D) To provide a backup air source for emergency braking.

6. Technician A states that the air brake system's design includes a fail-safe mechanism that allows for the safe operation if one of the brake circuits fails. Technician B claims that if the primary circuit fails, the secondary circuit alone is sufficient for safe stopping under all conditions. Who is correct?

   (A) Technician A only.
   (B) Technician B only.
   (C) Both A and B.
   (D) Neither A nor B.

7. If a valve assembly does not show any movement when 12 volts is applied to the solenoid, what troubleshooting steps should be taken next?

   (A) Replace the entire valve assembly immediately
   (B) Check the power supply to the solenoid and inspect for blockages in the valve
   (C) Increase the voltage to 24 volts to force movement
   (D) Ignore the issue if the system is functioning correctly

8. If a technician fails to cage the power spring before servicing the parking brake chamber, what potential safety hazard could arise during the maintenance process?

   (A) The parking brake may not engage properly after service.
   (B) The power spring could release unexpectedly, causing injury.
   (C) The technician may not be able to access the chamber.
   (D) The air pressure in the system could drop significantly.

9. Explain the function of the automatic moisture ejector valve in an air system and why it is important to drain it manually.

   (A) It prevents air leaks; draining is not necessary
   (B) It removes moisture to maintain air quality; draining prevents system damage
   (C) It regulates air pressure; draining is done to adjust pressure levels
   (D) It filters contaminants; draining is required for regular maintenance

10. The correct way to check slack adjuster operation and adjustment is to inspect the

    (A) Length of the diaphragm when the brakes are applied
    (B) Length of the pushrod stroke when the brakes are applied
    (C) Angle between the slack adjuster and the camshaft when the brakes are applied
    (D) Angle between the slack adjuster and the camshaft when the brakes are not applied

11. What is the primary coating used on hydraulic cylinder shafts to prevent pitting and scoring?

    (A) Nickel plating
    (B) Zinc coating
    (C) Chrome plate
    (D) Copper plating

12. When adjusting clutch linkage, Tech A says that the pedal free travel should be about 1 1/2 inches to 2 inches. Tech B says that free travel should be more than 1/2 inch measured at the release forks. Who's correct?

    (A) Both Tech A and Tech B
    (B) Neither Tech A nor Tech B
    (C) Tech A
    (D) Tech B

13. Technician A says that angle-spring pull-type clutches are adjusted by turning the large adjustment ring in the clutch cover. Technician B says that the adjustment changes the clutch-brake squeeze dimension. Who is correct?

(A) Technician B
(B) Technician A
(C) Neither Technician A nor Technician B
(D) Both Technician A and Technician B

14. What component is likely responsible for a transmission popping out of gear during deceleration?

(A) Weak or broken detent springs and balls
(B) Input shaft splines
(C) Synchronizer
(D) Linkage adjustment

15. Describe how bending fatigue can lead to the failure of a drive-shaft yolk.

(A) Caused by low torque loads on the drive-shaft yolk.
(B) Results from improper input shaft speed affecting the drive-shaft yolk.
(C) Occurs when the drive-shaft yolk is subjected to repeated high secondary loads, causing material stress and eventual failure.
(D) Is unrelated to the conditions of the terrain.

16. Which part would you suspect to be faulty if you heard a rumbling or grinding noise when pressing the clutch pedal?

(A) The clutch disc.
(B) Flywheel.
(C) Pressure plate.
(D) Release bearing.

17. After a noncomputer-controlled transaxle and valve body overhaul, the transaxle does not complete a 1-2 upshift, and shifts from first gear to third gear. All other shifts are normal, and this problem was not present before the overhaul. Technician A says the valve body torque may be excessive. Technician B says the governor pressure may be too low. Who is right?

(A) B only
(B) Neither A nor B
(C) A only
(D) Both A and B

18. What material is recommended for removing corrosion from valve components in air brake systems?

(A) Steel wool
(B) Sandpaper
(C) Emery cloth
(D) Wire brush