RM QUIZ CYCLE OF OPERATIONS

- 1. What is a cycle of function?
- 2. What are the phases of the cycle of operations?
- 3. What is the system of operation of the AR platform?
- 4. What is the Feeding process?
- 5. What is the chambering process?
- 6. What is the locking process?
- 7. What is the firing process?
- 8. What is the unlocking process?
- 9. What is the extracting process?
- 10. What is the ejecting process?
- 11. What is the cocking process?
- 12. What occurs during Trigger/Sear reset?

- 1. What is a cycle of function?
 - a. Mechanical process a weapon follows during operation. The information provided below is specific to the cycle of function as it pertains specifically to the M4- and M16-series weapons.
- 2. What are the phases of the cycle of operations?
 - a. Feeding.
 - b. Chambering.
 - c. Locking.
 - d. Firing.
 - e. Unlocking.
 - f. Extracting.
 - g. Ejecting.
 - h. Cocking.
- 3. What is the system of operation of the AR platform?
 - a. The M4- and M16-series weapons use a direct impingement gas operating system. This system uses a portion of the high pressure gas from the cartridge being fired to physically move the assemblies and subassemblies in order to complete the cycle of function.
- 4. What is the Feeding process?
 - a. Process of mechanically providing a cartridge of ammunition to the entrance of the chamber
- 5. What is the chambering process?
 - a. The continuing action of the feeding round into the chamber of the weapon
- 6. What is the locking process?
 - Process of creating a mechanical grip between the bolt assembly and chamber with the appropriate amount of headspace (clearance) for safe firing (see figure 2-5). With the M4- and M16-series weapons, locking takes place simultaneously with the final actions of chambering.
- 7. What is the firing process?
 - a. Finite process of initiating the primer detonation of the cartridge and continues through shot-exit of the projectile from the muzzle
- 8. What is the unlocking process?
 - a. Process of releasing the locking lugs on the bolt face from the corresponding recesses on the barrel extension surrounding the chamber area
- 9. What is the extracting process?
 - a. Removal of the expended cartridge case from the chamber by means of the extractor
- 10. What is the ejecting process?
 - a. Removal of the spent cartridge case from the weapon itself
- 11. What is the cocking process?
 - a. Cocking is the process of mechanically positioning the trigger assembly's parts for firing (see figure 2-10). The cocking phase completes the full cycle of functioning.
- 12. What occurs during Trigger/Sear reset?

- a. Once the ejection phase of the cycle of function is complete, the weapon initiates and completes the cocking phase. As part of the cocking phase, all mechanical components associated with the trigger, disconnect, and sear are reset. Any failures in the cocking phase indicate a weapon malfunction and require the shooter to take the appropriate action. The shooter maintains trigger finger placement and releases pressure on the trigger until the sear is reset, demonstrated by a metallic click. At this point the sear is reset and the trigger pre-staged for a subsequent or supplemental engagement if needed.
- b. Sight picture adjustment. Counteracting the physical changes in the sight picture
- c. caused by recoil impulses and returning the sight picture onto the target aiming point.