RM QUIZ SIGHTS AND OPTICS

1. What types do iron sights come in?

2. What are Optics?

3. Optical sights are used predominantly for day firing, with limited night capability. What are the types of optical sights?

4. What 4 types of optics are generally available for the M16/M4 series rifle?

5. What optics do some versions of the M4 and M16 come with?

6. What two apertures are available for the carrying handle?

7. What is the BUIS (Back Up Iron Sights)?

8. What is the M68 CCO?

9. What happens when the CCO is zeroed to its weapon?

10. What advantage does the CCO offer over other iron sights?

11. What are disadvantages of the CCO?

12. What does the RCO do?

13. What is the RCO?

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1. What types do iron sights come in?
    a. Iron sights (rear aperture and front sight post).
    b. Back up iron sights (BUIS).
2. What are Optics?
    Sighting aids for rifles and carbines that provide enhanced aim point reticles, and may include magnified fields of view. Optics are specific to day operations, although may be used during limited visibility or night operations. They do not have any method of enhancing low light conditions.
3. Optical sights are used predominantly for day firing, with limited night capability. What are the types of optical sights?
    a. Close Combat Optic (CCO).
    b. Rifle Combat Optic (RCO, previously referred to as the Advanced Combat Optic Gunsight or ACOG).
    c. Thermal. These are electronic sighting systems that provide a view of the field of view (FOV) based on temperature variations.
4. What 4 types of optics are generally available for the M16/M4 series rifle?
    Iron Sight.
    Back Up Iron Sight (BUIS).
    CCO, M68.
    RCO, M150.
5. Some versions of the M4 and M16 come with a
    carrying handle with an integrated rear aperture. The carrying handle may or may not be removable, depending on the version of the service rifle. The integrated rear aperture includes adjustments for both azimuth (wind) and elevation. Specific instructions for zeroing these aiming devices are found in the respective weapon's technical manual.
6. What two apertures are available for the carrying handle?
    Small aperture. Used for zeroing procedures and for mid- and extended-range engagements.
    Large aperture. Used during limited visibility, close quarters, and for moving targets at close or mid-range.
7. What is the BUIS (Back Up Iron Sights)?
    Semi-permanent flip-up sight equipped with a rail-grabbing base. The BUIS provides a backup capability effective out to 600 meters and can be installed on M16A4 rifles and M4-series carbines. The BUIS on the first notch of the integrated rail, nearest to the charging handle. The BUIS remains on the modular weapon system (MWS) unless the carrying handle/sight is installed.
8. What is the M68 CCO?
    Non-telescopic (unmagnified) reflex sight that is designed for the "eyes-open" method of sighting (see figure 3-8). It provides Soldiers the ability to fire with one or two eyes open, as needed for the engagement sequence in the shot process. The CCO provides a red-dot aiming point using a 2 or 4 MOA diameter reticle, depending on the variant. The red dot aiming point follows the horizontal and vertical movement of the firer's eye, allowing the firer to remain fixed on the target. No centering or focusing on the front sight post is required. There are three versions of the CCO available in the force.
9. What happens when the CCO is zeroed to its weapon?

It must remain matched with the same weapon, attached at the same slot in the attached rail system or be re-zeroed. If the CCO must be removed for storage, Soldiers must record the serial number and the rail slot to retain zero.

10. What advantage does the CCO offer over other iron sights?
    The speed advantage over iron sights in most if not all engagements. The adjustments on brightness allow the Soldier to have the desired brightness from full daylight to blackout conditions.
11. What are disadvantages of the CCO?
    The CCO lacks a bullet drop compensator or other means to determine accurate range to target beyond 200m.
12. What does the RCO do?
    Provide enhanced target identification and hit probability for the M4-/M4A1- or M16-series weapon. The reticle pattern provides quick target acquisition at close combat ranges to 800 meters using the bullet drop compensator (BDC) (see figure 3-10 on page 3-15). It is designed with dual illuminated technology, using fiber optics for daytime employment and tritium for nighttime and low-light use.
13. What is the RCO?
    Lightweight, rugged, fast, and accurate 4x power optic scope specifically designed to allow the Soldier to keep both eyes open while engaging targets and maintain maximum situational awareness.
14. What are advantages of the RCO?
    a. The bullet drop compensator (BDC) is accurate for extended range engagements using either M855 or M855A1 ball ammunition. The ballistic difference between the two rounds is negligible under 400 meters and requires no hold determinations. This is a widely fielded optic that is rugged, durable, and operates in limited light conditions. The self-illuminating reticle allows for continuous operations through end evening nautical twilight (EENT).
15. What are disadvantages of using the RCO?
    a. This optic's ocular view is limited when engaging targets in close quarters engagements. This requires additional training to master the close quarter's skills while employing the RCO to achieve overmatch against the threat.
    b. The RCO reticle does not include stadia lines. Windage must be applied by the shooter from a determined estimate. The RCO has a specific eye relief of 70-mm (millimeter) or 1.5 inches. If the eye relief is not correct, the image size will be reduced.
    c. The fiber optic illuminator element can provide excessive light to the reticle during certain conditions that produce a glare. The RCO does not have a mechanical or built in method to reduce the effects of the glare created.
    d. The increased lighting may interfere with the shooter's point of aim and hold determinations. Soldiers may use alternate methods to reduce the glare by reducing the amount of fiber optic exposed to direct sunlight during operating conditions.