1. To safely and effectively handle weapons, Soldiers must be cognitively aware of what three distinct weapons handling measures?

2. What is rule 1 of firearm safety?

3. What is rule 2 of firearm safety?

4. What is rule 3 of firearm safety?

5. What is rule 4 of firearm safety?

6. The readiness of a Soldier's weapon is termed as its weapon safety status (WSS).

7. Each color represents a specific series of actions that are applied to a weapon.

8. What must leaders take into consideration when giving weapon control statuses?

9. What is Overmatch?

10. What attributes contribute to a soldier's ability to utilize Overmatch?

11. What do target detection, acquisition, and identification describe?

12. How can Soldiers effectively engage targets at great engagement distances?

13. How can soldiers effectively engage targets in limited visibility?

14. How can soldiers effectively engage targets with great precision?

15. Why is Terminal Performance important to rifle marksmanship?

16. Why is training important to create smart, fast, lethal, and precise soldiers?

17. What is the first component of Overmatch at the soldier level?

18. Why is it important for soldiers to have weapon systems that have a greater range than their adversaries?

19. What helps soldiers detect, acquire, identify, and engage threats in all light conditions regardless of the tactical situation?

20. The Army standard service rifle is designed with a specific level of accuracy out to its maximum effective range. What is important to understand about the Army standard service rifle?

21. The close fight requires rapid manipulations, a balance of speed and accuracy, and very little environmental concerns.

22. How is the foundation of speed built?

23. What is the goal of training to overmatch?

24. What is terminal ballistic performance?

25. Why must soldiers understand the capabilities of their ammunition and weapon system?

26. Why should Soldiers understand the "how" and "why" of their weapon system, aiming devices, ammunition, and procedures?

27. What is the standard service rifle for the US Army?

28. What are weapon components?

29. What are weapon assemblies?

.

30. What are weapon subassemblies?

31. What are weapon parts?

32. What two components comprise of weapon systems?

33. What is the barrel?

34. What is the flash hider and compenstor?

35. What is the sling swivel?

36. What is the front sight assembly?

37. What is the adapter rail system?

38. What does the slip ring do?

39. What does the Ejection port do?

40. What does the dust cover do?

41. What does the Forward assist assembly do?

42. What is the purpose of the trigger assembly?

43. What is the bolt catch?

44. What is the rifle grip?

45. What is the purpose of the magazine catch assembly?

46. What is the purpose of the buttstock assembly?

47. What type of buttstock does the M4/M4A1 have?

48. What does the action spring do?

49. What does the lower receiver extension do?

50. What is a cycle of function?

.

51. What are the phases of the cycle of operations?

52. What is the system of operation of the AR platform?

53. What is the Feeding process?

54. What is the chambering process?

55. What is the locking process?

56. What is the firing process?

57. What is the unlocking process?

58. What is the extracting process?

59. What is the ejecting process?

60. What is the cocking process?

61. What is cooling?

62. How hot is the temperature of the burned propellant used in rifle cartridges?

63. How is heat absorbed and dissipated throughout the weapon system?

64. The M4- and M16-series of weapons use what three methods to varying degrees to cool the chamber, bore, and barrel to facilitate continuous operation?

65. How does radiational cooling work?

66. How does Conduction cooling work?

67. How does Convection cooling work?

68. Soldiers should be aware of the principles of the weapon's cooling methods' direct effects on their line of sight when:

69. What types do iron sights come in?

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

71. Pointer/Illuminator/Laser. These aiming devices use either a laser beam, flood light, or other light to aim the weapon at the target. What three types of illuminators does the army use?

72. What two types of angular measurements does the Army use?

73. What is one minute of angle?

74. What is a mil commonly used for?

75. When is the mil to degree relationship used?

76. What is a reticle?

77. What is a stadia metric reticle?

78. How do the vertical and horizontal stadia reticles function in a thermal weapon sight?

79. What is a major concern for effective use of thermal optics?

80. How do thermal optics work?

81. How do image intensifiers work?

82. Image intensifiers generally operate on the principles of convection, conduction, and radiation by:

83. What conditions create suboptimal function with thermal and image intensifiers?

84. Which situations can IR see better?

85. What are Optics?

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

87. Some versions of the M4 and M16 come with a

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

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

90. What is the M68 CCO?

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

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

93. What are disadvantages of the CCO?

94. What does the RCO do?

95. What is the RCO?

96. What are advantages of the RCO?

97. What are disadvantages of using the RCO?

98. What do thermal sights use to function?

99. The TWS is composed of five functional groups:

100. Military grade weapon thermal weapon sights are designed with what advantages?

101. What are the disadvantages of using a thermal weapon sight?

102. What are the basic two functions of PEQ systems?

103. What are AN/PEQ-2 aiming devices?

104. What are PEQ systems commonly used with?

105. How is the aiming light activated?

106. How do aiming lights work when zeroed to the weapon?

107. What is the AN/PEQ-15 ATPIAL

108. How is visible light useful?

109. How does the infrared laser work?

110. How can the lasers be used?

111. The AN/PEQ-15 has an

112. What is the AN/PEQ-15A DBAL-A2?

113. What does a laser range finder do?

114. What does the digital magnetic compass do?

115. What do the integrated visible aim laser (VAL) and illumination lasers provide?

116. What does the AN/PEQ-15A, DBAL-A2 visible aiming laser provide?

117. What does the ARS provides a secure mounting point for?

118. What should soldiers record on the ARS?

119. What two types of weapons that can be physically attached to the M16-/M4-series rifles?

120. What is the M320/M320A1?

121. Each mountable 40mm grenade launcher provides the following capabilities to the small unit:

.

122. What is the M26 and what purpose does it have?

123. The M26 provides specific tactical capabilities to the Soldier using the following ammunition:

124. What are mountable accessories and what is their purpose?

125. Vertical foregrips (VFGs) assist in transitioning from target to target in close quarter combat. What should the soldier keep in mind when using Vertical Foregrips?

126. VFGs with integrated bipods are acceptable for common use. How do they benefit soldiers?

127. The weapon-mounted lights are commonly issued throughout the Army. What are their purpose?

128. How should weapon lights be placed on the weapon?

129. What tasks are directly influenced by the Soldier's ability to hit the target under conditions of extreme stress?

130. Regardless of the weapon system, what the goal of shooting is to make well-aimed shots. What must soldiers do to acheive this end state?

131. To make well aimed shots, Soldiers must master what fundamentals of marksmanship?

132. The shot process is the basic outline of an individual engagement sequence all firers consider during an engagement, regardless of the weapon employed. Why is the shot process so important?

133. The shot process has three distinct phases. What are they?

134. The shot process allows the Soldier to focus on one cognitive task at a time. How can soldiers use the shot process to make effective hits?

135. What must soldiers do to make well aimed shots?

136. What are the functional elements of the shot process?

137. How is stability demonstrated throughout the shot process?

138. What is the process of aiming?

139. How is control demonstrated in the shot process?

140. How is movement demonstrated during the shot process?

141. How do movement, stability, control, and the aiming process affect the soldiers ability to hit their targets?

142. What do time, target size, target distance, and the Soldier's skills and capabilities determine?

143. How do soldiers develop their marksmanship capabilities?

144. What is target acquisition?

145. Target acquisition requires the Soldier to apply an acute attention to detail in a continuous process based on the tactical situation. What are the components of target acquisition?

146. Effective target detection requires a series of skills that Soldiers must master.

147. All engagements are enabled by the Soldier's detection skills, and are built upon what three skill sets?

148. Scanning and searching is the art of observing an assigned sector. What is the goal of scanning and searching?

149. Soldiers use five basic search and scan techniques to detect potential threats in combat situations. What five search and scan techniques are commonly used?

150. Target acquisition is the discovery of any object in the operational environment such as personnel, vehicles, equipment, or objects of potential military significance. When does this occur?

151. Threat detection is a critical skill that requires thoughtful application of the sensors, optics, and systems at the Soldier's disposal. Why is this important?

152. What are some practices soldiers can use in order to increase target detection?

153. How are targets located?

154. Identifying (or discriminating) a target as friend, foe, or noncombatant (neutral) is the second step in the target acquisition process. Threats are classified into what three categories?

155. The identification process is complicated by the increasing likelihood of having to discriminate between friend/foe and combatant/noncombatant in urban settings or restricted terrain. How can fratricide be mitigated?

156. How are unit markings defined?

157. How do panels help friend and foe identifications?

158. How does lighting impact friend and foe identification?

159. How do Symbols impact friend and foe identification?

160. When faced with multiple targets, how do Soldiers prioritize each target and carefully plan his shots to ensure successful target engagement?

161. What threats are considered most dangerous?

162. What threats are considered dangerous?

163. What threats are considered least dangerous?

164. What is the standard prioritization of targets establishes the order of engagement?

165. The prioritization of targets provides a control mechanism for the shooter, and facilitates maintaining overmatch over the presented threats. When should soldiers deviate from the prioritization?

166. Stability is provided through four functions. What are they?

167. Support can be natural or artificial or a combination of both. Where do natural and artificial support come from?

168. How is leg position important for marksmanship?

169. What is the center of gravity?

170. How does Elbow Position factor into shooting?

171. How does the non firing elbow factor into proper marksmanship?

172. How does position of the firing factor into marksmanship?

173. How does placement of the non firing hand factor into marksmanship?

174. What does the nonfiring hand support?

175. Why should the firer try to have the thumb over the top of the handguard when firing?

176. In all positions the thumb should fit around what?

177. Why is correct placement of the buttstock so important?

178. The vertical placement of the butt stock will vary from firing position to firing position. A general guideline to follow is:

179. What is stock weld?

180. When establishing the stock weld, why should you bring the rifle up to your head, not your head down to the rifle?

181. What is muscle relaxation?

182. The natural point of aim is the point where the barrel naturally orients when the shooter's muscles are relaxed and support is achieved. The natural point of aim is built upon what pinciples?

183. How does a lack of stability affect marksmanship?

184. How can you check a Soldier's natural point of aim?

185. How does the soldier's firing position manage recoil?

186. What is recoil management the result of?

187. What is the Shooter-Gun angle?

188. What is the field of view?

189. There are six primary carry positions. What are they?

190. When is the hang carry used?

191. When is the safe hang used?

192. When is the collapsed low ready used?

193. What does the collapsed low ready allow you to do?

194. What does the low ready provide the highest level of?

195. What are characteristics of the low ready positions?

196. When is the high ready used?

197. What are some characteristics of the high ready?

198. Where does the firing hand remain in the high ready?

199. What are disadvantages of high ready?

200. When is the ready used?

201. The Soldier must stabilize their weapon,

202. What happens when a shooter assumes a stable firing position?

203. A stabilization failure occurs when a Soldier fails to:

204. These failures compound the firing occasion's errors,

205. Why should soldiers practice shooting in a variety of different positions?

206. What are the two different standing positions?

207. What are some characteristics of the Squatting shooting positions?

208. Kneeling - The kneeling position is very common and useful in most combat situations. What are the two kneeling positions?

209. Sitting - All positions are easy to assume, present a medium silhouette, provide some body contact with the ground, and form a stable firing position. These positions allow easy access to the sights for zeroing. What are the three sitting positions?

210. Prone - The prone position is the most stable firing position due to the amount of the Soldier's body is in contact with the ground. The majority of the firer's frame is behind the rifle to assist with recoil management.. What are the four prone firing positions?

211. Why must soldiers practice working in different firing positions before shooting?

212. When is the standing unsupported position used?

213. When is the standing supported position used?

214. The key focus area for the standing supported position are applied in what ways?

215. What does the squatting firing position allow soldiers to do?

216. What can you do to assume a good squatting firing position?

217. What does the kneeling unsupported position not use?

218. What are the key focus areas for kneeling, unsupported shooting positions?

219. What are the differences between supported and unsupported firing positions?

220. What are key focus areas for the kneeling supported position?

221. What are some key focus areas to assume a good crossed-ankle position?

222. How do you assume a good crossed-leg position?

223. When is the open-leg sitting position is the preferred sitting position?

224. What is reverse roll over prone shooting position and when should it be used?

225. What is the Aiming process?

226. Aiming is the application of perfectly aligned sights on a specific part of a target. What is the most important part of this process?

227. The aiming process for engaging stationary targets consist of what actions?

228. The aim of the weapon is typically applied to the largest, most lethal area of any target presented. Sights can be placed on target by using battlesight zero (BZ), center of visible mass (CoVM). What is center of visible mass?

229. The Soldier orients the weapon in the direction of the detected threat. What is the process of weapon orientation?

230. What does horizontal weapons orientation cover?

231. What does vertical weapons orientation cover?

232. What is sight alignment?

233. What is considered proper sight alignment while using Iron sights?

234. What is considered proper sight alignment while using Optics?

235. The human eye can only focus clearly on one object at a time. How can soldiers achieve proper aim despite this?

236. How do shooters achieve consistent sight alignment?

237. What is sight picture and why is it important?

238. There are two sight pictures used during the shot process; pre-shot and post-shot. What is the difference between these two sight pictures?

239. What is point of aim?

240. What is the desired point of impact?

241. Orienting and aiming a weapon correctly is a practiced skill. How do soliders develop mastery of these skills?

242. How does eye dominance factor into effective marksmanship?

243. How does an incorrect zero affect marksmanship?

244. How do light conditions affect marksmanship?

245. How do battlefield obscurants affect marksmanship?

246. When will soldiers experience Incorrect sight alignment?

247. When does Incorrect sight picture occur?

248. How does Improper range determination affect marksmanship?

249. What is considered a complex engagement?

250. What are factors that contribute to increased engagement difficulty?

251. What are factors that shooters need to determine when making holds for a complex engagement?

252. What does a hold represent?

253. What are the two forms of hold determinations?

254. What are immediate holds based on? What are immediate holds meant for?

255. What are deliberate hold points of aim derived from?

256. What three things determine how targets present themselves to shooters?

257. Rapidly determining an accurate range to target is critical to the success of the Soldier at mid and extended ranges. What methods can be used to determine target range?

258. The immediate methods include:

259. When are short-range engagements probable?

260. What is critical for the accurate engagement of targets at close range?

261. How can Laser Range Finders be used for range determination?

262. The area of the target that is covered by the front sight post of the rifle can be used to estimate range to the target. How can you use the front sight post to determine engagement distance?

263. How should you use the front sight post for range determination when the target is less Than 300 Meters?

264. How should you use the front sight post for range determination when the target is greater than 300 Meters?

265. When observing a target, does the amount of detail seen at various ranges gives the shooter a solid indication of the range to target?

266. Once Soldiers are familiar and memorize the characteristics of standing threats at 100 meter increments out to 500 meters, they should study the targets in a kneeling and then in the prone position.How does the process of memorizing the characteristics of targets at specific ranges aid in range estimation?

267. What characteristics can be determined at 100 meters?

268. What characteristics can be determined at 200 meters?

269. What characteristics can be determined at 300 meters?

270. What characteristics can be determined at 400 meters?

271. What characteristics can be determined at 500 meters?

272. To determine the total distance to the target using the 100 meter unit of measure method, what must shooters do?

273. What is the biggest limitation for the unit of measure method?

274. What are Immediate range determination holds based on?

275. Moving targets are those threats that appear to have a consistent pace and direction. Targets on any battlefield will not remain stationary for long periods of time, particularly once a firefight begins. Why is it important for soldiers to be able to accurately engage moving targets?

276. What is the immediate hold for moving targets?

277. What are threats that are moving diagonally toward or away from the shooter called?

278. What should soldiers adjust their hold based on?

279. What is the most common variable and has the greatest effect on projectiles?

280. What are the elements of wind effects?

281. How does wind affect the flight path of bullets?

282. What is the value of the wind refer to? What affect does it have on a bullet's flight path?

283. How is wind speed determined?

284. What do downrange wind indicators include?

285. To estimate the effects of the wind on the shot, Soldiers need to determine what three windage factors?

286. What is the Immediate Wind Hold?

287. Soldiers may switch between optics, thermals, and pointers to refine their point of aim. What must the solider do to rapidly switch between aiming devices during operations in limited visibility?

288. Regardless of how well trained or physically strong a Soldier is, a wobble area (or arc of movement) is present, even when sufficient physical support of the weapon is provided. How are arcs of movement observed in shooters?

289. The Soldier physically maintains positive control of the shot process by managing what factors?

290. What is trigger control?

291. Stability and trigger control complement each other and are integrated during the shot process. How are they integrated in the shot process?

292. How can a shooter achieve proper trigger control?

293. What are important considerations for proper trigger finger placement?

294. How does a solider achieve proper trigger squeeze?

295. During the shot process, the shooter controls their breathing to reduce the amount of movement of the weapon. How can soldiers learn to properly manage their breathing patterns while shooting?

296. How does breathing affect accurate fires?

297. Vertical dispersion during grouping is most likely caused by what?

298. What is the workspace?

.

299. How does use of the workspace allow for more efficient weapon manipulation?

300. Location of the workspace will change slightly in different firing positions. What are some different examples of the workspace?

301. Workspace management includes the Soldier's ability to perform what functions?

302. Why is knowing precisely where the sights are when the weapon discharges critical for shot analysis?

303. The shooter is responsible for the point of impact of every round fired from their weapon. What does this mean?

304. What is considered slow semiautomatic fire?

305. What is rapid semiautomatic fire?

306. What is automatic or burst fire?

307. What is follow through?

308. What is recoil management?

309. What is recoil cover?

310. What occurs during Trigger/Sear reset?

311. What is an engagement assessment?

312. What does subsequent engagement mean?

313. What does Supplemental engagement mean?

314. What does Sector check mean?

315. When any weapon fails to complete any phase of the cycle of function correctly, a malfunction has occurred. What actions should take place when this happens?

316. The Soldier controls which actions must be taken to ensure the target is defeated as quickly as possible based on what criteria?

317. What happens when a secondary weapon can defeat the threat?

318. What happens when a secondary weapon cannot defeat the threat?

319. What happens when there is no secondary weapon?

320. What is the end state for any corrective action?

321. To overcome the malfunction, the Soldier must first avoid what?

322. What is immediate action?

323. What is remedial action?

324. What is considered a failure to fire?

325. What is considered a failure to feed?

326. What is considered a failure to chamber?

327. What is considered a failure to extract?

328. What is considered a failure to eject?

329. Remedial action requires the Soldier to do what?

330. When immediate action fails to correct symptom?

331. What is a stove pipe?

332. What is a double feed?

333. What is a bold override?

334. What is charging handle impingement?

335. To perform immediate action, the Soldier instinctively:

336. What actions should be completed for each type of malfunction?

337. Rapid and continuous firing of several magazines in sequence without cooling, will severely elevate chamber temperatures. How could this affect how your rifle operates?

338. If the Soldier determines that he has a potential "cook-off" situation he should do what?

339. What are vertical movements?

340. Vertical movements include actions taken to—

341. What are horizontal movements?

342. There are eight horizontal movement techniques while maintaining weapon orientation on the threat—

343. How should you move when shooting during forward movement?

344. During retrograde movement, the Soldier should—

345. During lateral movement, Soldiers should—

346. When executing a turn to either side, the Soldier will—

347. Ammunition for use in rifles and carbines is described as a cartridge. What is a cartridge?

348. What are the components for a centerfire rifle cartridge?

349. What is a Propellant?

350. What is a primer?

351. The bullet or projectile is the only component that travels to the target. There are multiple types of bullets used for various purposes. What are some common examples of different bullet types?

352. What are cartridge cases made from?

353. The M4- and M16-series weapons is a rimless cartridge case that provides an extraction groove (shown in figure A-2). These cartridge cases are designed to support center-fire operation. All 5.56mm ammunition uses the rimless cartridge case. What is a rimless cartridge case?

354. The bullet is a cylindrically shaped lead or alloy projectile that engages with the rifling of the barrel. What are bullets commonly made from?

355. Jacketed bullets are used to obtain high velocities and are better suited for semiautomatic and automatic weapons. What are bullet jackets commonly made from?

356. What may some projectiles be made from?

357. What is the Ball projectile intended for?

.

358. What is a Tracer round?

359. What are armor piercing cartridges intended for?

360. What are short range training rounds intended for?

361. What is a blank cartridge? What is it intended for?

362. How can small arms ammunition be identified?

363. What is the study of internal ballistics?

364. What is the study of external ballistics?

365. What is the axis of a rifle's bore?

366. What is a weapon's line of sight?

367. What is a line of elevation?

368. What is the ballistic trajectory of a projectile?

369. What is a maximum ordinate?

370. What is a bullet's time of flight?

371. What is the definition of jump?

372. What is considered the line of departure?

373. What is the definition of muzzle velocity?

374. What is a rifle's twist rate? Why is rate of twist important for ballistics?

375. What is considered the shot exit?

376. What is considered oscillation?

.

377. What is considered drift?

378. What is yaw?

379. What is a grain?

380. Why is pressure relevant to ballistics?

381. What is Gravity and why is it important to projectile ballistics?

382. What is Drag and why is it relevant to rifle ballistics?

383. What is the definition for Trajectory?

384. What three components of wind have the greatest impact on projectile ballistics?

385. Why is travel time in wind relevant to external ballistics?

386. Why is wind direction relevant to external ballistics?

387. Why is Wind velocity relevant to external ballistics?

388. What is kinetic energy?

389. What is penetration and why is it relevant to ballistics?

390. What is the most important terminal ballistic consideration?

391. What happens when terminal ballistics begins?

392. The following common barriers in built-up areas can prevent penetration by a 5.56-mm round fired at less than 50 meters (M855) including:

393. What is the best method for breaching a masonry wall?

394. What is soft tissue penetration?

395. What is considered the permanent cavity?

396. Depending on the soft tissue composition and density, the tissues are either elastic or rigid. How do elastic and rigid organs respond to gunshot wounds?

397. What is the temporary wound cavity?

398. What is bullet deformation?

399. What is bullet fragmentation?

400. What is bullet tumbling?

401. Once inside the target, what is the projectile's purpose?

402. What is incapacitation with direct fire?

403. What is the soldier's primary point of aim when engaging an enemy?

404. Why should shots to the head be weighed with caution?

405. When are shots to the pelvic area used?

406. What are Circuitry Shots?

407. What are hydraulic shots, or "timer" shots?

408. What must occur for hydraulic shots to eliminate a target?

409. What will occur if the shots do not disrupt blood flow at a rapid pace?

410. What must the soldiers understand when operating weapon systems?