

NRA Basic Metallic Cartridge Reloading Course Lesson Plans

Basic Metallic Cartridge Reloading

Test A - Key

NOTE: Page numbers refer to the *NRA Guide to Reloading* student handbook.

1. Reloading accidents are primarily caused by:
 - a. defective or worn reloading equipment.
 - b. **a combination of ignorance and carelessness. (p. 5 and Lesson I)**
 - c. errors in reloading manuals.
 - d. manufacturing defects in reloading components
2. The purpose of the cartridge case is to:
 - a. contain the other three cartridge components.
 - b. seal the chamber.
 - c. protect the breechface.
 - d. all of the above
 - e. **a and b only (p. 10 and Lesson II)**
3. The two types of primers used for metallic cartridges are:
 - a. rimmed and rimless.
 - b. **Berdan and Boxer. (pp. 13, 14 and Lesson II)**
 - c. battery cup and tapered cup.
 - d. standard and magnum.
4. Powder and primers:
 - a. should be stored together in the same cabinet in their original factory containers.
 - b. should be stored away from heat and exposure to open flame.
 - c. should be stored so that children and other unauthorized persons do not have access to them.
 - d. all of the above
 - e. **b and c only (p. 7 and Lessons I and II)**
5. If you buy or are given powders or primers in non-factory containers, such as coffee cans, these components:
 - a. can be used safely if the containers are clearly marked as to their contents.
 - b. can be used safely if the charge weights are reduced by 10%.
 - c. **should never be used to reload cartridges. (p. 6 and Lesson I)**
 - d. both a and b

6. Eye protection should be worn:
- only when priming cases.
 - only when actually working the reloading press.
 - whenever working with reloading components. (p. 5 and Lesson I)**
 - only when shooting; it is not required during reloading.
 - both a and b
7. It is permissible to eat at the reloading bench:
- as long as you do not handle food or drink with the same hand you handle components with.
 - as long as you drink with a straw and eat with safety gloves.
 - as long as you eat or drink from closed containers.
 - never. (p. 7 and Lesson I)**
 - both a and c
8. Of the following, which is not reloadable?
- a centerfire pistol cartridge
 - a centerfire rifle cartridge
 - a rimfire cartridge (p. 9 and Lesson I)**
 - a shotgun shell
9. Reloading:
- enables a shooter to save money on ammunition.
 - is a way to make ammunition tailored to a specific gun or purpose.
 - can enhance a shooter's enjoyment of the shooting sports.
 - protects the environment by recycling cartridge components.
 - all of the above (p. ix and Lesson I)**
10. During the firing process:
- the cartridge is driven slightly forward in the chamber by the impact of the firing pin.
 - the case walls expand tightly against the chamber walls.
 - the case head is forced rearward against the breechface, stretching and thinning the case walls just forward of the web area of the case head.
 - all of the above (pp. 2, 3, Figs. 2 & 2A and Lesson I)**
11. Put the following metallic cartridge reloading steps in the proper sequence:
- priming, powder charging, sizing, crimping, bullet seating
 - resizing, depriming, wad seating, powder charging, bullet seating
 - resizing, decapping, priming, powder charging, bullet seating (p. 3 and Lesson I)**
 - resizing, powder charging, bullet seating, repriming, crimping

12. Trimming metallic cartridge cases with a case trimmer is necessary because:
- a. cases can stretch as a result of the firing process.
 - b. cases can stretch as a result of being resized.
 - c. cases can stretch after prolonged cleaning in a vibratory or tumbler-type case cleaning machine,
 - d. all of the above
 - e. **a and b only (p. 44 and Lesson IV)**
13. Case cleaning machines can be used to clean:
- a. **brass cases. (p. 46 and Lesson IV)**
 - b. primers.
 - c. live ammunition.
 - d. all of the above
 - e. a and c only
14. Applying case sizing lubricant to the shoulder of a bottleneck cartridge case:
- a. can best be done using cotton swabs.
 - b. makes it easier for the case to enter the sizing die.
 - c. **can cause dents in the shoulder during resizing, and thus should be avoided. (pp. 53, 54 and Lesson V)**
 - d. both a and b
15. Cases should be organized in batches to:
- a. reduce the likelihood of reloading errors.
 - b. increase reloading efficiency.
 - c. increase reloading speed.
 - d. **all of the above (p. 51 and Lesson V)**
 - e. b and c only
16. Case length gauges can be used to:
- a. measure case length.
 - b. determine whether case diameter has been resized to the proper dimension.
 - c. determine whether a bottleneck case has been sufficiently resized to give proper headspace.
 - d. **all of the above (p. 55)**
 - e. a and b only
17. Hard primer seating can be the result of:
- a. a remaining primer pocket crimp, as on military cases.
 - b. misalignment of the primer in the primer pocket.
 - c. use of the wrong size primer.
 - d. **all of the above (p. 58)**
 - e. b and c only

18. When reloading, you should:
- a. refrain from eating or smoking.
 - b. avoid using alcohol or drugs.
 - c. beware of fatigue.
 - d. never mix powders.
 - e. **all of the above (pp. 6, 7, 107 and Lesson I)**
19. Additional information on reloading can be obtained from:
- a. materials from the National Reloading Manufacturers Association (NRMA) and its members.
 - b. reloading clinics sponsored by gun shops.
 - c. gun clubs.
 - d. **all of the above (pp. 105,)**
20. When measuring powder charges using a powder measure alone:
- a. every 10-20 rounds, check the accuracy of the measure by weighing the thrown powder charge with a scale.
 - b. consistent technique is necessary to ensure consistency in the thrown charges.
 - c. only charges below maximum should be thrown.
 - d. **all of the above (p. 61 and Lesson V)**
 - e. a and b only
21. When inspecting pistol cases, they should always be discarded if:
- a. **they have splits or loose primer pockets (pp. 65, 66 and Lesson V)**
 - b. they are too long.
 - c. they have a dent in the case mouth.
 - d. all of the above
 - e. a and c only
22. Failing to seat primers fully to the bottom of the primer pocket can cause:
- a. **erratic ignition. (pp. 74 and Lesson V)**
 - b. unsafe chamber pressures.
 - c. cracked or split cases.
 - d. all of the above
23. Variations in the charges thrown by a powder measure can be caused by:
- a. the technique of the powder measure operator.
 - b. the size and shape of the powder granules.
 - c. the design of the powder measure.
 - d. **all of the above (p. 61)**

24. Fine-tuning a load may involve:
- a. dividing the interval between the starting powder charge and the maximum powder charge into several steps, and loading five rounds for each step.
 - b. examining fired cases for signs of high pressure.
 - c. interchanging different bullets of the same weight and diameter as the original bullet specified in the published loading data.
 - d. all of the above
 - e. **a and b only (pp. 84-86 and Lesson III)**
25. Excessive chamber pressures can result from:
- a. seating the bullet too deeply.
 - b. seating the bullet too far out.
 - c. applying too much crimp to the case mouth.
 - d. **all of the above (pp. 63, and Lesson V)**
 - e. a and c only
26. A double charge of powder:
- a. can occur only when using a powder measure.
 - b. can be detected visually by using light shining into the case mouths at an angle.
 - c. can be detected by using a depth gauge, such as a marked piece of dowel rod.
 - d. all of the above
 - e. **b and c only (p. 62 and Lesson V)**
27. When reading a typical beam-type reloading scale, the gradations on the left side of the beam are typically in _____-grain increments, while the gradations on the right are in _____-grain increments.
- a. 5, 1
 - b. 10, 1
 - c. 10, .1
 - d. **5, .1(p. 42)**
28. The components of a metallic cartridge are:
- a. case, powder, bullet, and crimp.
 - b. powder, primer, case, and cannelure.
 - c. **case, primer, powder, and bullet. (p. 9 and Lesson II)**
 - d. brass, powder, slug, primer, and wad.
29. The five types of metallic cartridge case heads are:
- a. rimmed, rimless, beltless, rimmed belted, and rebated rimless.
 - b. rimmed, rebated rimmed, belted rimmed, semi-rimmed, and rebated semi-rimmed.
 - c. **rimmed, semi-rimmed, rimless, rimless belted, and rebated rimless. (p. 11, 12 and Lesson II)**
 - d. rebated rimless, belted rimless, belted rimmed, semi-rimmed, and belted semi-rimmed.

30. Which of the following is true?
- a. Although large pistol and large rifle primers are the same size, they cannot be used interchangeably.
 - b. Smokeless powder must never be substituted for black powder or Pyrodex®.
 - c. Ammonia-based solvents should not be used for cleaning metallic cartridge cases.
 - d. **all of the above (pp. 6, 14, 51 and Lessons II and VI)**
 - e. a and b only
31. The term *headspace* commonly refers to:
- a. the distance from the breechface to that part of the chamber that stops forward movement of the cartridge.
 - b. the slight fore-and-aft play normally present when a cartridge is chambered and the action is closed.
 - c. the distance between the case mouth and the case head.
 - d. all of the above
 - e. **a and b only (pp. 2, 12, 13 and Lesson II)**
32. Incorrect headspace can cause:
- a. an inability to close the action of a firearm.
 - b. excessive stretching of cartridge cases.
 - c. rupture or separation of the case at the junction of the case head and case body.
 - d. **all of the above (pp. 12, 13 and Lesson II)**
 - e. a and c only
33. When crimping handgun cartridges:
- a. revolver cartridges generally require a roll crimp.
 - b. semi-automatic pistol cartridges that headspace on the case mouth should be given a taper crimp.
 - c. both pistol and revolver cartridges should be given a roll crimp.
 - d. **both a and b (pp. 80 and Lesson V)**
34. The three most important goals of reloading are:
- a. **safety, consistency and accuracy. (p. 83)**
 - b. power, accuracy and reliability.
 - c. safety, reliability and power.
 - d. accuracy, reliability and power.
35. The measure of weight known as a grain is:
- a. **equal to 1/7000 of a pound. (p. 16)**
 - b. a unit of measurement used in the metric system.
 - c. the approximate weight of an individual particle or granule of powder.
 - d. equal to 1/1000 of a gram.
 - e. both b and d

36. The three basic shapes of smokeless powder granules are:
- a. extruded rod, spherical and flake.
 - b. spherical, round and disc.
 - c. flattened rod, extruded disc and flake.
 - d. cylindrical, flake and ball.
 - e. **both a and d (p. 15 and Lesson II)**
37. A sizing die with a carbide ring:
- a. eliminates the need to lubricate cases.
 - b. should be adjusted to leave a slight gap between it and the shell holder when the ram is fully raised.
 - c. should be adjusted to touch the shell holder when the ram is fully raised.
 - d. produces more accurate ammunition.
 - e. **both a and b (p. 39 and Lessons V and VI)**
38. Boxer primers:
- a. are widely used in the United States.
 - b. can be interchanged with Berdan primers.
 - c. have an anvil.
 - d. all of the above
 - e. **both a and c (p. 13 and Lesson II)**
39. If unusual resistance is encountered in seating a primer:
- a. apply more force to ensure the primer enters the primer pocket all the way.
 - b. gently tap the case to ensure proper primer alignment, then try again to seat the primer.
 - c. **stop all attempts to seat the primer and find out what is wrong. (p. 13 and Lesson V)**
 - d. use a sharp tool to enlarge the primer pocket,
 - e. both b and d
40. A dial caliper is normally used in reloading to measure:
- a. the length of the cartridge case.
 - b. the length and diameter of the bullet.
 - c. overall cartridge length.
 - d. **all of the above (p. 44 and Lesson IV)**
41. Excessive pressures can sometimes be caused by:
- a. seating the bullet too deeply or too far out.
 - b. using more than the maximum or less than the minimum amount of powder listed in the manual.
 - c. mixing different types of smokeless powders.
 - d. substituting different bullets of the same weight and nominal diameter.
 - e. **all of the above (pp. 16, 33, 63, 86 and Lessons I, III and V)**

42. For a given cartridge, powder, primer and bullet, the maximum published load:
- a. will be the same in all the reloading manuals.
 - b. allows a safety margin of 10%, and thus can be safely exceeded slightly by the careful reloader.
 - c. should be reduced by 2% to arrive at a starting load.
 - d. **should never be exceeded under any circumstances. (pp. 33, 87 and Lesson I)**
 - e. both c and d
43. Specific instructions for setting up your handloading press and dies:
- a. **can be found in the instructions accompanying the equipment. (pp. 49, 53 and Lesson V)**
 - b. can be obtained from the National Rifle Association.
 - c. can be obtained from the Sporting Arms and Ammunition Manufacturers' Institute.
 - d. all of the above
44. Powder can safely be disposed of by:
- a. burning it in the open, in small shallow piles not more than 1" high and one pound in weight, ignited at a distance using a fuze or powder train (if permitted by local laws).
 - b. taking it to a hazardous waste disposal facility.
 - c. using it as fertilizer, if dispersed widely (if permitted by local laws).
 - d. **all of the above (p. 18 and Lesson II)**
 - e. a and b only
45. The reloader should have more than one reloading manual because:
- a. it is always more prudent to compare loads from different manuals.
 - b. there is no one best manual.
 - c. some manuals may not contain data for the cartridge being reloaded or the specific components being used.
 - d. **all of the above (pp. 32, 33 and Lesson III)**
46. Maximum chamber pressure standards are established by the:
- a. National Rifle Association of America (NRA).
 - b. National Reloading Manufacturers Association (NRMA).
 - c. **Sporting Arms and Ammunition Manufacturers' Institute (SAAMI). (p. 30 and Lesson III)**
 - d. American National Standards Institute (ANSI).
47. When you are finished reloading, you should:
- a. store all reloading components so that children and other unauthorized persons cannot have access to them.
 - b. return any unused reloading components to their original factory containers.
 - c. wash your hands and face.
 - d. **all of the above (p. 7 and Lesson I)**

48. When cartridge cases are longer than the maximum length specified in the reloading manual:

- a. they should always be discarded.
- b. **they should be trimmed to the proper length. (pp. 44, 55, 71 and Lesson IV)**
- c. the bullet should be seated slightly deeper to compensate.
- d. the sizing die should be adjusted to compensate.

49. Neck sizing:

- a. may result in longer case life.
- b. may result in greater accuracy.
- c. always requires a special neck sizing die.
- d. all of the above
- e. **a and b only (p. 39 and Lessons IV)**

50. The reloader should:

- a. understand each step of the reloading process and why each step is done in a specific way.
- b. eliminate distractions in order to be able to concentrate on his or her work while reloading.
- c. establish a system of checks and inspections for every reloading step.
- d. all of the above **(p. 6, Lesson I and NRA Basic Metallic Cartridge Reloading Wall Chart #1)**
- e. a and b only

NRA Basic Shotgun Shell Reloading Course Lesson Plans

Basic Shotgun Shell Reloading

Test A - Key

NOTE: Page numbers refer to the *NRA Guide to Reloading* student handbook.

51. Reloading accidents are primarily caused by:
- a. defective or worn reloading equipment.
 - b. **a combination of ignorance and carelessness. (p. 5 and Lesson I)**
 - c. errors in reloading manuals.
 - d. manufacturing defects in reloading components.
52. Modern shotgun shell cases:
- a. are most often made of plastic.
 - b. must be positively identified regarding the specific gauge, brand and type of case, before they are used for reloading.
 - c. may have defects not visible on the exterior of the shell.
 - d. **all of the above (p. 20, 95, 96 and Lessons II and V)**
53. The type of primer used in shotgun shells is known as a:
- a. large rifle primer.
 - b. Berdan primer.
 - c. Boxer primer.
 - d. **battery cup primer. (p. 22 and Lesson II)**
54. Shotgun shells loaded with slugs:
- a. may require a different type of crimping die than that used for shot loads.
 - b. must be reloaded using data, components and techniques specifically for slug loads.
 - c. must be assembled using high-brass hulls only.
 - d. all of the above
 - e. **a and b only (p. 28 and Lesson II)**
55. Powder and primers:
- a. should be stored together in the same cabinet in their original factory containers.
 - b. should be stored away from heat and exposure to open flame.
 - c. should be stored so that children and other unauthorized persons do not have access to them.
 - d. all of the above
 - e. **b and c only (p. 7 and Lesson I)**

56. If you buy or are given powders or primers in non-factory containers, such as coffee cans, these components:
- a. can be used safely if the containers are clearly marked as to their contents.
 - b. can be used safely if the charge weights are reduced by 10%.
 - c. **should never be used to reload shotgun shells or metallic cartridges. (p. 6 and Lesson I)**
 - d. only when shooting; it is not required during reloading.
 - e. both a and b
57. Eye protection should be worn:
- a. only when priming cases.
 - b. only when actually working the shotgun shell reloader.
 - c. **whenever working with reloading components. (p. 5 and Lesson I)**
 - d. both a and b
58. Is it permissible to eat at the reloading bench?
- a. as long as you do not handle food or drink with the same hand you handle components with.
 - b. as long as you drink with a straw and eat with safety gloves.
 - c. as long as you eat or drink from closed containers.
 - d. **never. (p. 7 and Lesson I)**
 - e. both a and c
59. Of the following, which is not reloadable?
- a. a centerfire pistol cartridge
 - b. a centerfire rifle cartridge
 - c. **a rimfire cartridge (p. 9 and Lesson I)**
 - d. a shotgun shell
60. Reloading:
- a. enables a shooter to save money on ammunition.
 - b. is a way to make ammunition tailored to a specific gun or purpose.
 - c. can enhance a shooter's enjoyment of the shooting sports.
 - d. protects the environment by recycling cartridge components.
 - e. **all of the above (p. ix and Lesson I)**
61. Shot charges for shotgun shells are measured in:
- a. grams.
 - b. dramequivalents.
 - c. grams.
 - d. **ounces. (p. 24 and Lesson III)**
 - e. none of the above

62. Put the following shotgun shell reloading steps in the proper sequence:
- priming, powder charging, resizing, crimping, wad seating
 - resizing, depriming, wad seating, powder charging, shot charging, crimping
 - resizing, decapping, priming, powder charging, wad seating, shot charging, crimping (p. 4, 5 and Lesson I)**
 - resizing, decapping, priming, powder charging, shot charging, wad seating, crimping
63. The typical shotgun shell reloader [as shown on p. 90 of the *NRA Guide to Reloading*]:
- measures shot and powder volumetrically.
 - will produce only a roll crimp.
 - features canisters for powder and shot pellets.
 - all of the above
 - a and c only (pp. 90, 91 and Lesson IV)**
64. In shot charges of lead and steel shot of the same weight and shot size [refer to tables on pp. 25- 26 of the *NRA Guide to Reloading*]:
- there will be more steel pellets than lead pellets. (pp. 25 26)**
 - there will be more lead pellets than steel pellets.
 - there will be equal numbers of lead and steel pellets.
 - the number of pellets depends upon the type of wad used.
 - the number of pellets depends upon the type of wad and case used.
65. Steel shot loads
- can be assembled using data for lead shot pellets if the charge weights are reduced 10%.
 - are required by federal law for all waterfowl hunting.
 - require components, tools and data designed specifically for assembling steel shotgun shell loads.
 - all of the above.
 - b and c only (p. 26 and Lesson II)**
66. High brass plastic shotgun shells:
- can be reloaded a greater number of times than low brass hulls.
 - are stronger than low brass cases.
 - are functionally the same as low brass hulls. (pp. 21, 22 and Lesson II)**
 - produce higher velocities than low brass hulls.
67. Buffered shot loads:
- can be assembled using regular shotshell load data, as long as the same size shot is used.
 - protect the shot pellets from deformation during their acceleration down the barrel.
 - helps the shot charge flow through the choke area of a shotgun barrel.
 - all of the above.
 - b and c only (p. 27 and Lesson II)**

68. During reloading, shotgun shells are crimped with:
- a. a six-fold crimp.
 - b. a taper crimp.
 - c. a roll crimp.
 - d. **the same type of crimp as the original factory crimp. (p. 91 and Lesson V)**
69. Hard primer seating can be the result of:
- a. use of the wrong wad
 - b. **misalignment of the primer in the primer pocket. (p. 98 and Lesson V)**
 - c. failure to lubricate the primer with oil.
 - d. both b and c
70. Additional information on reloading can be obtained from:
- a. pamphlets, books, videos and other materials from the National Reloading Manufacturers Association (NRMA) and its members.
 - b. reloading clinics sponsored by gun shops.
 - c. gun clubs.
 - d. **all of the above (pp. 105, 106)**
71. Shot pellet sizes:
- a. **are designed using a system of numbers and letters. (pp. 24, 25 and Lesson II)**
 - b. are designated by different numbering systems for soft lead, plated and steel shot.
 - c. are designated by the shot pellet diameter in millimeters.
 - d. both a and b
72. The *dram equivalent* rating of a shotgun shell:
- a. refers to the weight of powder in grains used in each shell.
 - b. **refers to the power of a modern shotgun shell compared to obsolete black powder shells. (p. 23 and Lesson III)**
 - c. refers to the weight of the shot charge in a shotgun shell.
 - d. can be used to weigh out charges of smokeless powder.
73. When seating shotgun shell primers:
- a. they should bottom in the primer pocket of the case.
 - b. they should sit flush with, or slightly below, the level of the face of the case head.
 - c. the use of too much force can result in primer ignition.
 - d. **all of the above (p. 98 and Lessons II and V)**
74. The term *gauge* used in relation to shotgun shells signifies:
- a. the diameter of the shot pellets or slug.
 - b. the degree of choke.
 - c. **the diameter of the bore. (p. 147 and Lesson II)**
 - d. the length of chamber.

75. Working up a shotgun shell load may involve:
- a. substituting different shotgun powders for the specific powder listed in the reloading manual.
 - b. trying different wads than the one specified in the reloading manual.
 - c. interchanging different sizes of shot for a given shot charge weight.
 - d. **none of the above, as shotgun shell loads are never worked up (p. 103 and Lesson ID)**
76. When reading a typical beam-type reloading scale, the gradations on the left side of the beam are typically in _____-grain increments, while the gradations on the right are in _____-gram increments.
- a. 5, 1
 - b. 10, 1
 - c. 10, .1
 - d. **5, .1(p. 42)**
77. The components of a shotgun shell can include:
- a. hull, powder, primer, bullet, and crimp.
 - b. hull, primer, powder, wad, shot pellets.
 - c. case, primer, powder, cannellure and shot pellets.
 - d. case, powder, slug, primer and wad.
 - e. **both b and d (p. 19 and Lesson I)**
78. The term *headspace* commonly refers to:
- a. the distance from the breechface to the part of the chamber that stops forward cartridge movement.
 - b. the small amount of fore-and-aft play normally present when a cartridge is chambered and the action is closed.
 - c. the distance between the case mouth and the case head.
 - d. all of the above
 - e. **a and b only (pp. 2, 12, 13 and Lesson II)**
79. The three most important goals of reloading are:
- a. **safety, consistency and accuracy.(p. 83 and Lesson I)**
 - b. powder, accuracy and reliability.
 - c. safety, reliability, and power.
 - d. accuracy, reliability, and power.
80. The measure of weight known as a *grain* is:
- a. **equal to 1/7000 of a pound. (p. 16 and Lesson III)**
 - b. a unit of measurement used in a metric system.
 - c. the approximate weight of an individual particle or granule of powder.
 - d. equal to 1/1000 of a gram.
 - e. both b and d

81. The three basic shapes of smokeless powder granules are:
- a. extruded rod, spherical and flake.
 - b. spherical, round and disc.
 - c. flattened rod, extruded disc and flake.
 - d. cylindrical, flake and ball.
 - e. **both a and d (p. 15 and Lesson II)**
82. If unusual resistance is encountered in seating a primer:
- a. apply more force to ensure the primer enters the primer pocket all the way.
 - b. gently tap the case to ensure proper primer alignment, then try again to seat the primer.
 - c. **stop all attempts to seat the primer and find out what is wrong. (p. 13 and Lesson V).**
 - d. use a sharp tool to enlarge the primer pocket.
83. For a given combination of hull type, wad type, powder, primer and weight and type of shot, the maximum published load:
- a. will be the same in all the reloading manuals.
 - b. allows a safety margin of 10%, and thus can be safely exceeded slightly by the careful reloader.
 - c. should be reduced by 2% to arrive at a starting load.
 - d. **should never be exceeded under any circumstances. (p. 33 and Lesson ID)**
 - e. both c and d
84. Specific instructions for adjusting your shotgun shell loader (as for wad pressure or crimping):
- a. **can be found in the instructions accompanying the loader. (p. 101 and Lesson V)**
 - b. can be obtained from the National Rifle Association.
 - c. can be obtained from the Sporting Arms and Ammunition Manufacturers' Institute.
 - d. all of the above
85. Powder can safely be disposed of by:
- a. burning it in the open, in small shallow piles not more than 1" high and one pound in weight, ignited at a distance using a fuze or powder train (if permitted by local laws).
 - b. taking it to a hazardous waste disposal facility.
 - c. using it as fertilizer, if dispersed widely (if permitted by local laws).
 - d. **all of the above (p. 18 and Lesson II)**
 - e. a and b only
86. Each completed reloaded shotgun shell should be inspected for:
- a. a proper crimp.
 - b. a case free of cracks or other defects.
 - c. a properly seated primer.
 - d. **all of the above. (p. 102 and Lesson V)**

87. The reloader should have more than one reloading manual because:
- a. most manuals contain serious errors.
 - b. there is no one best manual.
 - c. even with the exact same load, the levels of performance and pressure listed in different manuals may vary.
 - d. all of the above
 - e. **b and c only (p. 32, 33 and Lesson III)**
88. Maximum chamber pressure standards are established by the:
- a. National Rifle Association (NRA).
 - b. National Reloading Manufacturers Association (NMRA).
 - c. **Sporting Arms and Ammunition Manufacturers' Institute (SAAMI). (p. 30 and Lesson III)**
 - d. American National Standards Institute (ANSI).
89. When you are finished reloading, you should: .
- a. store all reloading components so that children and other unauthorized persons cannot have access to them.
 - b. return any unused reloading components to their original factory containers.
 - c. wash your hands and face.
 - d. **all of the above (p. 7 and Lessons V)**
90. A reloading bench:
- a. must be at least five feet long.
 - b. must be made of metal with welded joints.
 - c. **should be kept clean and uncluttered. (p. 7 and Lesson I)**
 - d. should have wheels on all legs for easy mobility.
91. The reloader should:
- a. understand each step of the reloading process and why each step is done in a specific way.
 - b. eliminate distractions in order to be able to concentrate on his or her work while reloading.
 - c. establish a system of checks and inspections for every reloading step.
 - d. **all of the above (p. 6 and Lesson I)**
92. Lead shot is plated:
- a. **to reduce pellet deformation. (p. 26 and Lesson II)**
 - b. to prevent rusting.
 - c. to lower air resistance and thus fly faster and farther.
 - d. to be more visible in flight.
93. Steel shot:
- a. **may produce sharp pressure changes from slight variations in components, with the same powder charge weight. (pp. 26, 27)**
 - b. can be reloaded using data for the closest size of lead shot.
 - c. can be reloaded using data for the closest weight of lead shot.
 - d. always requires a buffer.

94. The purpose of the wad is *to*:
- a. seal propellant gases.
 - b. cushion the shot pellets.
 - c. fill space in the case to allow proper crimping.
 - d. **all of the above (p. 24 and Lesson II)**
95. All shotgun shells feature:
- a. a crimp.
 - b. a brass head.
 - c. a rim.
 - d. all of the above
 - e. **a and c only (pp. 20, 21 and Lesson II)**
96. The four types of lead shot are:
- a. magnum, hard, shot and super-soft.
 - b. magnum, hard, steel and plated.
 - c. hard, soft, drop and plated.
 - d. **soft, chilled, hard and plated. (p. 25, 26 and Lesson II)**
97. When reloading you should:
- a. refrain from eating or smoking.
 - b. avoid using alcohol or drugs.
 - c. beware of fatigue.
 - d. **all of the above. (pp. 6, 7 and Lesson I)**
98. Old-style shotgun shell primers lacking a paper or foil covering over the flash hole:
- a. can be used if they have not been exposed to solvents, oils or moisture.
 - b. can be used if the powder charge weights are reduced 10%.
 - c. **should not be used, as powder can get inside such primers and cause excessive pressure. (p. 22 and Lesson II)**
 - d. both a and b
99. Volumetrically-measured powder charges used to reload shotgun shells:
- a. are measured using powder bushings.
 - b. should be verified by weighing several thrown charges on a reloading scale.
 - c. can vary depending upon powder density, humidity, the technique of the reloader, and other factors.
 - d. **all of the above. (pp. 93, 94 and Lesson IV)**
100. The different varieties of powders used to reload shotgun shells:
- a. cannot easily be identified by their appearance.
 - b. have different burning rates, and thus cannot be mixed.
 - c. must never be substituted for black powder or Pyrodex®
 - d. **none of the above. (p. 16 and Lesson II)**
 - e. both b and c