

Explain the detail, on parade, for the following :—

5. Changing the nature of a fire from *common shell*, to *shrapnel*, and to *case shot*, and in accordance therewith, the rate of fire from *slow*, to *ordinary*, and *rapid*.
6. From Line to retire in column of Sections from a Flank.
7. From Line to Countermarch when at diminished Intervals.
8. From Quarter Column of Sections to Deploy.

NOTE.—Not more than two of the above questions to be put to each officer present at Inspection. No special order of precedence to be observed, and the same questions not to be asked twice. Officers absent from Inspection may, if possible, be afforded an opportunity of answering the questions, provided they have attended annual drill, and their absence is satisfactorily accounted for.

Garrison Artillery

OFFICERS.

1892.

Questions—(Value 8 each.)

1. What mechanical advantage is gained by the use of pulleys. What allowance should be made for friction? How can you ascertain the safe working strain and weight of service rope?
2. How is gunpowder classified? State the different descriptions used for 10-inch guns and under.
3. Describe how to slew the trunnions by handspikes or lever, and how to take a gun on rollers through a narrow passage.
4. Describe the operation of dismounting a gun by watered skids down the rear. What stores are required?
5. State what is meant by "centre of gravity," "centre of pressure" "specific gravity," "gravimetric density."
6. What are the variable Forces acting on a Projectile, how may the variations caused by them be corrected.

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N. C. OFFICERS.

Questions—(Value six each.)

1. What is the meaning of angle of elevation—angle of descent—jump?
2. Describe a Luff tackle—a whip upon whip—a selvagee.
3. What are the rules for giving deflection?
4. Explain the relation between the power and the weight in the first and second orders of the lever.
5. Describe how cartridges are filled, choked, and hooped.
6. State the weights of the projectiles and charges for 64-pr. converted gun.
7. For what general purposes are common and shrapnel shell used on a sea front?