

Candidate Name: _____

Telegraph Written Test Booklet

Included in this test packet is a set of pictures used in some of the questions. This is an open book test. You may use the ICWV Telegraph Best Practices Manual, and the Signal Corps Reenactor's Service Manual, as well as notes taken during your course of instruction. Write your answers in this test booklet. Be sure and place your name at the top of this page in the space provided.

1. Who is credited with the invention of the Telegraph in the United States?
2. When was the first official demonstration of the Telegraph?
3. There are two codes associated with the Telegraph. List each type and describe the differences?
4. Who invented the Morse Code?
5. Power, electromagnetism, and current flow over a distance are needed to make a telegraph operate. Name an inventor of a battery, the electromagnet, and discoverer of the relationship between current, voltage and resistance.
6. Using picture 1, associate the part of the key shown with the appropriate arrow on the picture.
7. Using picture 2, associate the part of the relay shown with the appropriate arrow on the picture.
8. Using picture 3, associate the part of the sounder shown with the appropriate arrow on the picture.
9. Schematically draw a terminal station (1860 era).
10. Why are two power sources needed for a terminal station "supplying battery?"

11. Describe a gravity battery.
12. What is the typical voltage on the line on an 1860's vintage telegraph system?
13. What is the maximum current we should run on our line?
14. What is the typical voltage for the local loop on an 1860's system?
15. What is an "escape?"
16. Describe the difference between a "regular" telegraph system and a "metallic" telegraph system.
17. Count the number of words in the message below:

Buffalo, Oct. 10, 1865
John Brown, Geneva, N.Y.

Meet me here next Monday, at 10 o'clock in the forenoon.

H. Smith.
18. Draw a block diagram of a two station set-up used in our unit for demonstration. Label each block.
19. Describe the components of our unit's "wireless" telegraph system.

20. Describe the operation of our unit's "wireless" telegraph system.

21. What is one way to keep the wire safe from unauthorized or unintentional contact?

22. What is PPE?

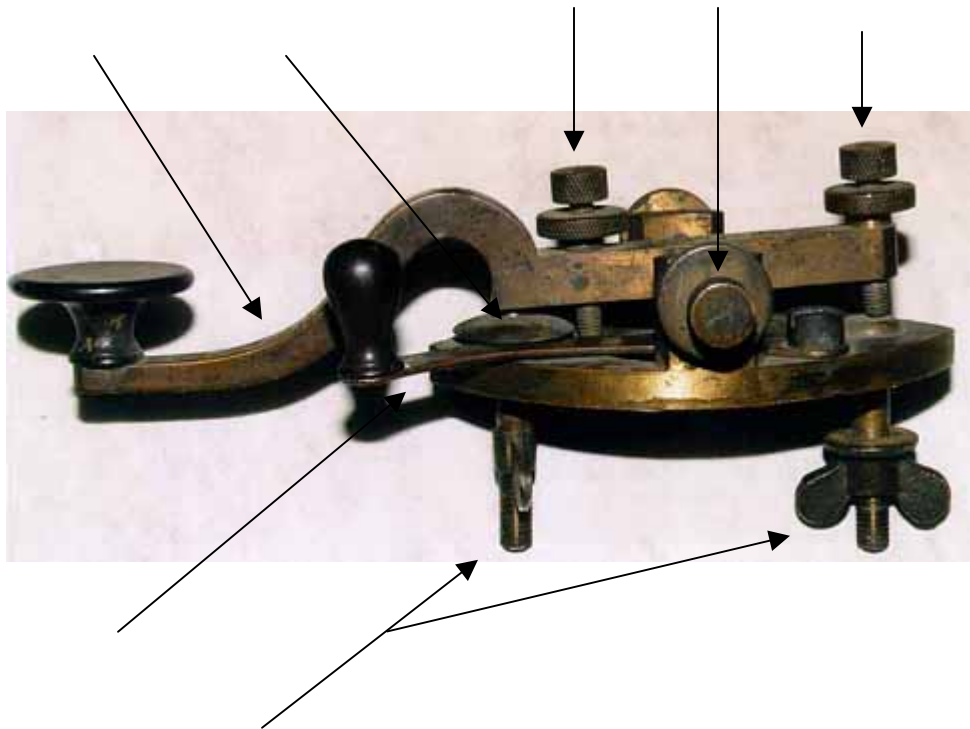
23. Using the code wheel provided, encrypt "go to the commanders tent" using the crib word ACT.

24. Describe a replacement code.

25. How would you "cut in" to a line and listen to enemy telegraph messages?

When you are finished with your exam, review your answers with the Chief Signal Officer.

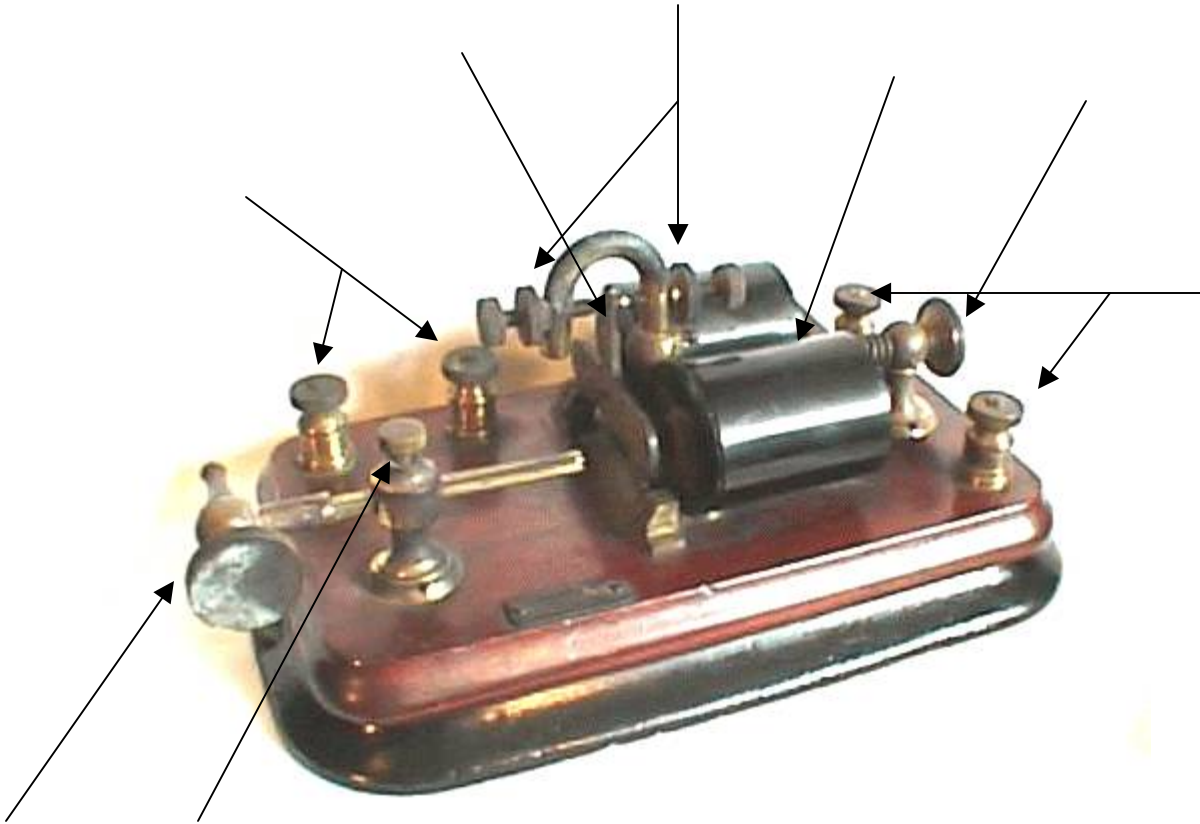
Telegraph Key
Picture 1



Place the number on the arrow for the following parts:

1. Connection points
2. Lever
3. Trunion adjustment
4. Switch
5. Contact points
6. tension adjustment
7. Point gap adjustment

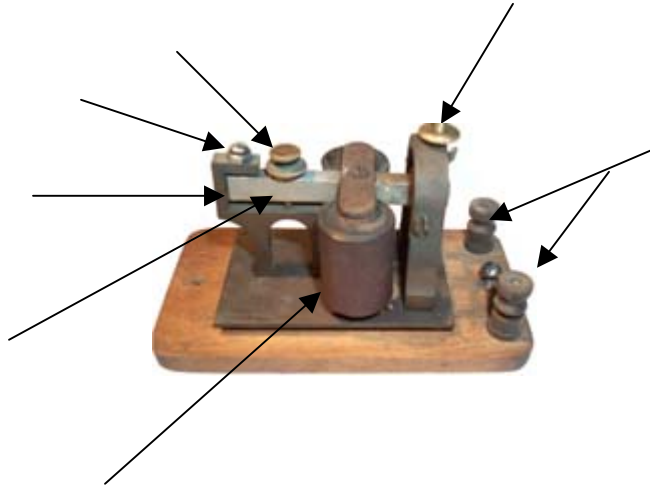
Telegraph Relay
Picture 2



Place the number on the arrow for the following parts:

1. Electromagnetic coils
2. Switch contact points
3. Course switch tension adjustment
4. Fine switch tension adjustment
5. Line connections
6. Local loop connections
7. Switch adjustment screws
8. Coil spacing adjustment

Sounder
Picture 3



Place the number on the arrow for the following parts:

1. Connections
2. Electromagnets
3. Anvil
4. Hammer tension adjustment
5. Hammer down travel adjustment
6. Hammer up travel adjustment