PLSS – LS Exam Review
Practice Problems

1. You have recovered a stone that substantially agrees with the description of the ¼ corner between sections 10 and 11 as found in the official field notes. There is a stump hole that matches the call in the field notes for the bearing tree in the southeast quadrant. No evidence exists of the other bearing tree. You find the stone to be N87°W 16.22 feet from an iron pipe at the computed mid-point of the east line of section 10 based on the found NE and SE corners. Select the statement that best fits the action to be taken:
    a. Set a new monument at GLO record bearing and distance from the SE corner of section 10
    b. Declare the corner existent as marked by the stone and prepare and file a corner record
    c. Set a new monument midway between the pipe and the stone since that is the equitable solution and protects the bona fide rights of the claimants
    d. Accept the iron pipe as marking the ¼ corner
2. You discover that a new highway has wiped out all evidence of the ¼ corner between sections 15 and 16. As part of your records research, you find a survey of 3 acres that shows monuments set at all four tract corners as well as a tie to the original stone monument marking the ¼ corner. The ¼ corner should be considered:
    a. Lost
    b. Existent
    c. Obliterated
    d. Found
3. Indicate the correct method to restore the ¼ corner noted in (2) above
    a. Restore the ¼ corner at midway and on-line between the SE and NE corners of section 16
    b. Restore the ¼ corner using the geometry depicted on the survey of the 3 acres
    c. Restore the ¼ corner using a least squares adjustment and the positions of the NE and SE corners of section 16 and the corners of the 3 acres
    d. Restore the ¼ corner using a weighted mean bearing between the NE and SE corners of section 16 and the nearest tie point on the 3 acres
4. You find a #5 rebar set flush with the ground at a point from which fences meander in the four cardinal directions. This monument is apparently the SE corner of section 22 but you find no record of the monument's origin. The pin is on the wrong side of a small stream 6 links wide that courses SE and is called in the GLO field notes. Based on the evidence presented, you should declare this corner point:
    a. Existent
    b. Obliterated
    c. Lost
    d. Proportioned
5. You are hired to monument the ¼ corner between sections 10 & 15 which is found to be lost. The GLO record length of the N line of section 15 is 80.22 chains. Your measured distance between the SE and SW corners of section 10 is 5308.00 feet. You would restore the point for the lost ¼ corner at what distance E of the NW corner of section 15?
    a. 2647.26 feet
    b. 2646.72 feet
    c. 2654.00 feet
    d. 2660.46 feet

6. The GLO distance between the SE and NE corner of section 3 is reported to be 79.50 chains and you measure 5230.77 feet. The ¼ corner between sections 2 and 3 is lost. At what distance from the corner of sections 2, 3, 10, and 11 should the point for the lost ¼ corner be restored?
    a. 2640.00 feet
    b. 2623.50 feet
    c. 2615.00 feet
    d. 2631.45 feet
7. In the scenario noted in question 6 above, what is the record length of the west line of Lot 4 of section 2?
    a. 1320 feet
    b. 1287 feet
    c. 1311.75 feet
    d. 1307.50 feet
8. In the scenario noted in question 6 above, at what distance N of the restored ¼ corner would you establish the position for the N 1/16th corner between sections 2 and 3?
    a. 1287 feet
    b. 1320 feet
    c. 1315.72 feet
    d. 1307.50 feet

<u>REFER TO THE SPECIMEN PLAT – APPENDIX I OF THE MANUAL OF 2009 FOUND IN THE BACK POCKET</u>

9. The ¼ corner between sections 6 and 7 is lost; the SE and SW corners are existent. Your measured distance between the NE and NW corners of section 7 is 5308.00 feet. At what distance E of the SW corner of section 6 should the lost ¼ corner be restored?
    a. 2726.60 feet
    b. 2581.40 feet
    c. 2569.71 feet
    d. 2654.00 feet
10. Using the information contained in question 9 above, what is the length of the south line of Lot 7 per your measurement?
    a. 1179.42 feet
    b. 1320.00 feet
    c. 1218.11 feet
    d. 1348.00 feet
11. Your true line notes of the retracement of the south line of section 35 read as follows:

    <u>Chains</u>

    0.00 Beginning at the corner of sections 34 and 35 on the south line of the township, east on true line along the south line of section 35

    2.46 the meander corner on the left bank of the Yellowstone River marked by a standard BLM monument

    17.01 the meander corner on the right bank of the Yellowstone River marked by a standard BLM monument

    82.17 the corner of sections 35 and 36 on the south line of the township marked by a standard BLM monument.

    At what distance west of the SE corner of section 35 would you restore the lost ¼ corner?
    a. 2687.85 feet
    b. 2711.61 feet
    c. 2640.00 feet
    d. 2783.22 feet

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12. Your retracement of the west line of section 9 reveals the following measurements: SE corner of section 8 to the found WC = 2684.00 feet; SE corner of section 8 to the NW corner of section 9 = 5287.00 feet. At what distance from the SE corner of section 8 should the point for the ¼ corner be restored?
    a. 2644.33 feet
    b. 2644.40 feet
    c. 2640.00 feet
    d. 2643.50 feet
13. You retrace the south line of section 26 and find the meander corner on the left bank of the Yellowstone River to be 37.22 feet east of the ordinary high water mark. Your measured distance from the corner of sections 26, 27, 34, and 35 to the meander corner is 3100.00 feet. At what distance west of the meander corner should the lost ¼ corner be restored?
    a. 571.16 feet
    b. 521.50 feet
    c. 533.94 feet
    d. 607.88 feet
14. The following corners of section 26 are existent: SE, MC RBR, MC LBR, NE, W ¼. The E-W center quarter section line of section 26 should be established by:
    a. Running from the W ¼ corner easterly along a weighted mean bearing
    b. Running from the W ¼ corner easterly parallel with the S line of section 26
    c. By connecting the W ¼ with the E ¼ corner restored using the MC's to the north and the south
    d. By connecting the W ¼ corner with a point midway and on line between the NE and SE corners of section 26
15. The meander corner on the line between sections 17 and 20 and on the meander line of Lins Lake should be restored by/at:
    a. Record bearing and distance westerly from the ¼ corner to the east
    b. By rerunning the meander courses and resolving any overage or shortage in measurement by grant boundary adjustment
    c. By rerunning the meander courses and resolving any overage or shortage by compass rule adjustment
    d. By extending the line connecting the NE corner of section 20 and the S ¼ corner of section 17 westerly to the ordinary high water mark of the lake
16. The ¼ corner and the meander corner on the south line of section 17 are lost. The ¼ corner should be restored:
    a. By double proportionate measure without regard for cardinal equivalents
    b. At N89°57'W 2640.00 feet from the NE corner of section 20 with the basis of bearings being the true meridian
    c. By rerunning the meander courses along Lins Lake, restoring the MC using compass rule adjustment, and then by single proportionate measure between the restored MC and the NE corner of section 20
    d. At a point N89°57'W from the NE corner of section 20 and 3.20 chains distant from the ordinary high water mark of Lins Lake
17. All mile posts along the boundary of Rho San Blas are lost. Corners 6, 8, and 9 are existent. What is the correct procedure to restore the lost Corner 7?
    a. Single proportionate measure
    b. Dougle proportionate measure

c. Broken boundary method
d. Grant boundary adjustment

18. The west boundary of T15N R20E is not a guide meridian. What corners below should be used to control the restoration of the SW corner of section 6?
    a. S ¼ corner of section 6, S ¼ corner section 1 (T15N R19E), W ¼ corner section 7, and the NW corner of section 6
    b. The W ¼ corner of section 7 and the NW corner of section 6
    c. The S ¼ corner of section 6 and the S ¼ corner of section 1 (T15N R19E)
    d. Not enough control is provided to execute the restoration
19. The scenario is exactly the same as in question 18 above except the west boundary of T15N R20E is a guide meridian. What corners below should be used to control the restoration of the SW corner of Section 6?
    a. S ¼ corner of section 6, S ¼ corner section 1 (T15N R19E), W ¼ corner section 7, and the NW corner of section 6
    b. The W ¼ corner of section 7 and the NW corner of section 6
    c. The S ¼ corner of section 6 and the S ¼ corner of section 1 (T15N R19E)
    d. Not enough control is provided to execute the restoration
20. You have established the true meridian at Corner 8 of Rho San Blas. All mile posts along the boundary of Rho San Blas are lost. Your measured bearing and distance from Corner 8 to Corner 7 is South 9°16'15"East 7480.00 feet. What is the bearing and distance from Corner 8 to the restored Corner 7?
    a. S73°00'W, 1306.14 feet
    b. S73°00'W, 1311.37 feet
    c. S73°08'31"W, 1306.14 feet
    d. S73°08'31"W, 1311.37 feet
21. The closing corner on the east line of section 13 at Rho San Blas is lost. The proper procedure to restore the lost cc is:
    a. At the intersection of a line N0°03'W from the SE corner of section 13 with the south line of Rho San Blas
    b. At 17.56 chains proportionate measure between the SE and NE corners of section 13
    c. At 2.79 chains easterly from mile post #2 along the boundary of Rho San Blas
    d. At 2.79 chains proportionate measure between MP 2 and MP 1.5 on the south line of Rho San Blas
22. The record length of the N line of Lot 6 plus the N line of Lot 7, section 13 is:
    a. 42.79 chains
    b. 40.00 chains
    c. 37.71 chains
    d. 42.29 chains
23. Section 10 was surveyed and monumented according to the procedures set forth in the Manual of Instructions. How many corners were monumented to control section 10?
    a. 4
    b. 6
    c. 8
    d. 9
24. Assuming all corners are existent, the ¼ corner between sections 15 and 22 controls the location of the boundary of how many acres?
    a. 640

b. 320
c. 160
d. 1280

25. Assuming all corners are existent, the corner of sections 9, 10, 15, and 16 controls the location of the boundary of how many acres?
    a. 640
    b. 320
    c. 160
    d. 1280