Applied Satellite Positioning, Adjustments and Analysis

Final Exam

1) Which of the following is not one of the three major segments of GPS:
    a. Control
    b. Space
    c. User
    d. Hardware

2) GPS processing of raw data to a GPS vector between two stations is a sequential, iterative process of all the differencing methods. At the end of the day, the _____ difference is usually relied on to produce a fixed ambiguity solution.
    a. Single between satellites
    b. Single between receivers
    c. Double
    d. Triple

3) The relationship between the ellipsoid and the geoid is defined by what two values:
    a. Geoid height and deflection of the vertical
    b. Ellipsoid height and deflection of the vertical
    c. Geoid height and ellipsoid height
    d. Convergence angle and ellipsoid height

4) A distance measured between a GPS satellite and a receiver based on a time shift that depends on the correlation of codes, is called?
    a. User Range Bias
    b. A bias
    c. A pseudorange measurement
    d. A carrier phase measurement

5) In rapid static surveying, a method of rapid ambiguity resolution is made easier because of:
    a. Squaring the L1 and L2 frequencies, and then subtracting one from the other
    b. Wide laning
    c. Narrow laning
    d. On the Fly

6) If the main diagonal of a matrix contains the values of 1, 2 and 3, and all other values are zeros, what's the determinant:
    a. Cannot be determined
    b. 0
    c. 1/3
    d. 6

7) What are the two forms of mathematical adjustment models generally used least squares:
    a. Conditional adjustment
    b. Parametric adjustment
    c. Both a and b
    d. None of the above

8) A standard error of unit weight of 2.501 with no snoop numbers greater than 3.0 indicates:
    a. Your network weighting is too optimistic
    b. Your network weighting is too pessimistic
    c. Your network weighting is on target (right where it should be)
    d. All of the above

9) A standard error of unit weight of 0.257 with all snoop numbers less than 0.3 indicates:
    a. Your network weighting is too optimistic
    b. Your network weighting is too pessimistic
    c. Your network weighting is on target (right where it should be)
    d. All of the above

10) It's possible to turn bad data into good data by:
    a. Using least squares
    b. By adjusting the weighting until you pass the Chi Squared test
    c. It's not possible
    d. By scaling the reference variance until your standard error of unit weight equals one