Reliability: Application and Review Exercise

1. Three social researchers are trained to evaluate the extent to which subjects correctly identify stereotypical depictions of major characters in historical documents. What type of reliability evidence would be most relevant to this research project?
   a. inter-rater reliability
   b. test-retest reliability
   c. parallel-form reliability
   d. internal-consistency reliability
   e. standard error of measurement

2. A commercially developed science achievement test has been recently published. The test’s publishers produce evidence to show that if students score well on one of the test’s three versions, they will also tend to score well on the other two versions. What kind of reliability evidence is this illustrating?
   a. inter-rater reliability
   b. test-retest reliability
   c. parallel-form reliability
   d. internal-consistency reliability
   e. standard error of measurement

3. A college exit exam requires graduating seniors to write four short essays. Cronbach’s coefficient alpha has been applied because each of the essays is to be scored on a 1, 2, 3, 4, 5, or 6 basis. What sort of reliability evidence is being sought here?
   a. inter-rater reliability
   b. test-retest reliability
   c. parallel-form reliability
   d. internal-consistency reliability
   e. standard error of measurement

4. A self-report inventory focusing on high-school students’ vocational interests was field-tested by being administered to 1,000 students in late March and again in mid-April. The inventory’s developers wanted to see if students’ vocational interests shifted over a three-week period. What type of reliability evidence was the focus of this field-testing?
   a. inter-rater reliability
   b. test-retest reliability
   c. parallel-form reliability
   d. internal-consistency reliability
   e. standard error of measurement
5. A committee of teachers and central office administrators has been developing a basic skills test that a school-district’s high school students will need to pass if they are to receive an “endorsed” diploma. The test will be computer administered and taken multiple times during their senior year. What kind of reliability evidence would be most important because of the different times that students can take the test?
   a. inter-rater reliability
   b. test-retest reliability
   c. parallel-form reliability
   d. internal-consistency reliability
   e. standard error of measurement

6. If a student has scored one point lower than the score needed on a state accountability test to exempt that student from a district-mandated summer school program, what reliability factor could be used to explain to this student’s parents why the child must still attend summer school?
   a. inter-rater reliability
   b. test-retest reliability
   c. parallel-form reliability
   d. internal-consistency reliability
   e. standard error of measurement

7. A college chemistry professor has created four new versions of a final exam, believing that some students may have “gained access” to the old single-version exam. The professor decides to see if all four new versions of the examination are providing students with the same kind of challenge. What type of reliability evidence should the professor gather?
   a. inter-rater reliability
   b. test-retest reliability
   c. parallel-form reliability
   d. internal-consistency reliability
   e. standard error of measurement

8. Suppose a multistate assessment consortium wanted to see if students’ scores on a new “oral communication” assessment procedure remained the same over several administrations, irrespective of when students completed them. What kind of reliability evidence would be most pertinent in this instance?
   a. inter-rater reliability
   b. test-retest reliability
   c. parallel-form reliability
   d. internal-consistency reliability
   e. standard error of measurement
9. Your research methods professor correlates matched content pairs of items on your last unit test to determine whether there is homogeneity across this test instrument. In finding a correlation coefficient above +.95, he concluded that the test possesses a high degree of which type of reliability?
   a. inter-rater reliability
   b. test-retest reliability
   c. parallel-form reliability
   d. internal-consistency reliability
   e. standard error of measurement

10. A new nationally standardized reading achievement test for junior high school students has been created, but the test’s developers want to make sure that the three versions of the new test are performing in essentially the same way. What sort of reliability evidence should they seek?
   a. inter-rater reliability
   b. test-retest reliability
   c. parallel-form reliability
   d. internal-consistency reliability
   e. standard error of measurement