1. If the difference between two tests are found to be within the allowable tolerances from Section 14 of the AOSA Rules, the difference can be attributed to:
   1. Reporting error
   2. Random sample variation
   3. Evaluation error
   4. Test conditions
2. **True** or **False** When determining if the components of two purity tests are within tolerance of each other, the same tolerance table may be used for all components.
3. Classification for Chaffy and Super Chaffy seeds can be found in column \_\_\_\_\_ of Table 2A in the AOSA Rules.
4. You are determining tolerances of a sample of *Vicia sativa* subsp. *sativa* (common vetch). What is the chaffy classification to be used in the tolerance table?
   1. Non-chaffy
   2. Chaffy
   3. Super chaffy
5. You are determining tolerances between the lab report and the analysis label of a mixture of big bluestem, Indian grass, and switchgrass. The sample consists of 15% big bluestem; 19% Indiangrass; and 66% switchgrass. What is the chaffy classification to be used for tolerances of this mixture?
   1. Super chaffy
   2. Chaffy
   3. Non-chaffy
6. You are determining tolerances on a mixture of 24% hairy vetch (*Vicia villosa* subsp. *villosa*) and 76% rye (*Secale cereale* subsp. *cereale*). What is the chaffy classification for the tolerance table?
   1. Chaffy
   2. Non-chaffy
   3. Super chaffy
7. Laboratory ABC wants to compare the purity work of the analysts in their laboratory for proficiency among analysts. They pull two sub-samples from the same submitted sample of coriander (*Coriandrum sativum*) and have each analyst perform the same test for comparison. Which tolerance table would be used to compare the results from the two analysts?
   1. Table 14J
   2. Table 14B
   3. Table 14A
   4. Table 14E
8. Two samples are pulled from a lot of wheat seed for a purity test. Sample A is sent to Laboratory ABC, and Sample B is sent to Laboratory XYZ. The customer wants to determine if the two laboratories are in tolerance with each other. Which tolerance table should be used to compare the results from the two laboratories?
   1. Table 14J
   2. Table 14B
   3. Table 14A
   4. Table 14E
9. **True** or **False** When using Table 14B, there is no objection to seed lots found to be of better quality than those stated in the first analysis (or seed label).
10. \_\_\_\_\_\_\_\_\_\_ tolerances are used on purity tests when the sample contains five percent or more of each of two kinds of cultivars of pure seed with different weights per seed when the weight ratio is 1.45:1 or greater.
    1. Germination
    2. Special
    3. Chaffy
    4. Regular
11. Below are the results of two wheat (*Triticum aestivum*) purity tests performed in the same laboratory on two different sub-samples taken from the same submitted sample. Are all components of the two tests in tolerance?

Analysis 1 Analysis 2

Pure Seed 98.27% 97.21%

Inert 1.72% 2.79%

Weed 0.01% 0.00%

Other Crop 0.00% 0.00%

* 1. Yes
  2. No

1. **True** or **False** There is a Special Purity Tolerance Test Tool available on the AOSA/SCST website.
2. When conducting a purity on coated seeds in a mixture, the special tolerance tables were established based on \_\_\_\_\_\_\_\_\_\_ seeds for all kinds included in a mixture.
   1. coated
   2. chaffy
   3. uncoated
   4. super chaffy
3. What table or tables are used to determine noxious weed seed tolerances? (select all that apply)
   1. Table 14E
   2. Table 14G
   3. Table 14L
   4. Table 14H
4. **True** or **False** All noxious weeds can be combined to determine tolerances and do not need to be done on an individual species level.
5. A laboratory is conducting internal training and is trying to determine if their analysts are in tolerance of each other on the number of noxious weeds found. Which tolerance table should be used to check the work of their analysts?
   1. Table 14H
   2. Table 14G
   3. Table 14F
   4. Table 14I
6. A label analysis shows that there were 6 field bindweed (*Convolvulus arvensis*) per pound in a lot of wheat. The laboratory test found 14 field bindweed seeds in 502.1 grams. Is the number of noxious weeds found in the laboratory test within tolerance of the label claim?
   1. Yes
   2. No
7. What table or tables are used to determine germination tolerances? (select all that apply)
   1. Table 14A
   2. Table 14E
   3. Table 14K
   4. Table 14J
8. Germination tolerances are used to compare single components of a germination analysis, which includes (select all that apply):
   1. Dead seed
   2. Abnormal seedlings
   3. Dormant seed
   4. Normal seedlings
   5. Any combination of two or more components of a germ test (i.e. the sum of germination and hard seed).
9. **True** or **False** The tolerances shown in Table 14J are the maximum difference allowed between the highest and lowest replicate of a germination test.
10. You have conducted a 400-seed germination test on a sample of corn and got the following results for normal seedlings. Are these replicates in tolerance?  
    Replicate 1 97%  
    Replicate 2 92%  
    Replicate 3 98%  
    Replicate 4 95%  
    1. Yes
    2. No
11. **True** or **False** If replicates of a germination test are out of tolerance, the sample must be retested.
12. Table 14K lists the maximum tolerance between two germination tests on the same seed lot from \_\_\_\_\_\_\_\_.
    1. the same submitted sample tested in the same seed laboratory.
    2. different submitted samples tested in the same seed laboratory.
    3. different submitted samples tested in different seed laboratories.
    4. All of the above.
13. You have conducted a 400-seed germination test on a soybean sample and have been asked to compare the results with the current label. Is your test in tolerances with the current label for the seed lot?

Analysis 1 (label): 93%  
Analysis 2 (your test): 86%

* 1. Yes
  2. No

1. You have conducted a germination test on a lawn grass mixture composed of 89% tall fescue and 11% Kentucky bluegrass to determine if the seed is still in tolerance with the seed label. What percent needs to be added to the germination tolerances given in Table 14K when calculating the tolerance of the Kentucky Bluegrass results?

Seed Label Lab Analysis

89% Tall Fescue 85% 78%   
 11% Kentucky Bluegrass 85% 75%

1. 5%
2. 3%
3. 50%
4. 2%
5. Using the information given in question 25, is the result of the Lab Analysis for the tall fescue component of the mixture in tolerance with the seed label?
   1. Yes
   2. No
6. Using the information given in question 25, is the result of the Lab Analysis for the Kentucky bluegrass component of the mixture in tolerance with the seed label?
   1. Yes
   2. No
7. What table or tables are used to determine seed count tolerances? (select all that apply)
   1. Table 14J
   2. Table 14H
   3. Table 14Q
   4. Table 14M
8. When comparing two seed count test results on a soybean sample, you must multiply the labeled/first result by a factor of \_\_\_\_% to determine the tolerance allowed.
   1. 2
   2. 9
   3. 5
   4. 4
9. The seed count on an analysis label for a sample of soybeans states 2,457 seeds/pound. The laboratory test has a seed count of 2,556 seeds/pound. Are these lab results in tolerance with the previous label?
   1. Yes
   2. No
10. What table or tables are used to compare two seed moisture tests? (select all that apply)
    1. Table 14Q
    2. Table 14M
    3. Table 14R
    4. Table 14P
11. **True** or **False** If the difference between two replications of a seed moisture determination test exceeds 0.2%, the test must be repeated.
12. You have performed a 400-seed tetrazolium test as a retest to a 200-seed test. Are these two tests in tolerance with one another?

Analysis 1 (200-seed): 84%

Analysis 2 (400-seed): 89%

1. Yes
2. No
3. A laboratory is conducting a referee study to add a new TZ procedure into the TZ Handbook. Which tolerance table should they use to determine if two laboratories that participated in the referee are within tolerance of each other?
   1. Table 14Q
   2. Table 14O
   3. Table 14N
   4. Table 14M
4. A laboratory is conducting a TZ test to determine if the results from the analysis label and the laboratory test are within tolerance of one another. Which tolerance table should be used to determine if the test results and the analysis label are within tolerance?
   1. Table 14R
   2. Table 14N
   3. Table 14M
   4. Table 14L