Here are two example questions to illustrate the kind of multiple-choice questions I might ask to test understanding of the RSEO part of the course, with some answers/explanations in blue below:

1. Which statement about image geometric distortion below is **incorrect**?
   (a) Geometric distortion caused by earth curvature is unavoidable to all satellite images.
   (b) Airborne remote sensing is not subject to the geometric distortion resulted from earth rotation.
   (c) Push-broom scanning introduces less geometric distortion than across-track scanning.
   (d) For across-track scanners, one-way scanning introduces more geometric distortion than two-way scanning.

The incorrect answer is (d).

(You will not need to write this in the quiz but the reason is that in an across-track scanner, there is a tiny difference in time and satellite/Earth motion, and therefore spatial distortion occurs between each pixel on each scan line (back and forth), whereas these same differences occur in a systematic way on only one direction not both. The answers for (a), (b) and (c) are all true to some extent. All remotely sensed images from a moving platform above a moving Earth are subject to curvature distortions. Airborne sensing is subject to less Earth rotation distortion than a satellite, since it is closer to the Earth and its flight direction could be co-aligned with the Earth rotation, but it is always present to some degree. Push-broom scanners are subject to fewer distortions than line scanners, since an entire line is imaged at the same time, rather than pixel by pixel as with a whisk-broom, and this is why all modern passive sensors involve a push-broom mechanism.)

2. In conducting a time-series analysis/assessment of land cover and environmental condition, using multispectral imagery. Write a list of the top 5 causes of erroneous and/or unexpected results

Answers could include:
Improper/conflicting input data range/scaling, clouds as a separate class, clouds skewing input data range, statistical constraint by specifying too few classes, insufficient input datasets, incorrect input spectral bands, variable/inconsistent atmospheric correction amongst datasets, unpredictable feature change occurring within the time-series …