

Misurata University
Faculty of Engineering, Dept. of Petroleum Engineering
Structural Geology Course – Final Exam

Sat. 06/02/2023

5x12 = 60 pts

Time 120 minutes

Q1. State whether the following states are True (T) or False (F). If the statement is false; write down the correct form of the statement.

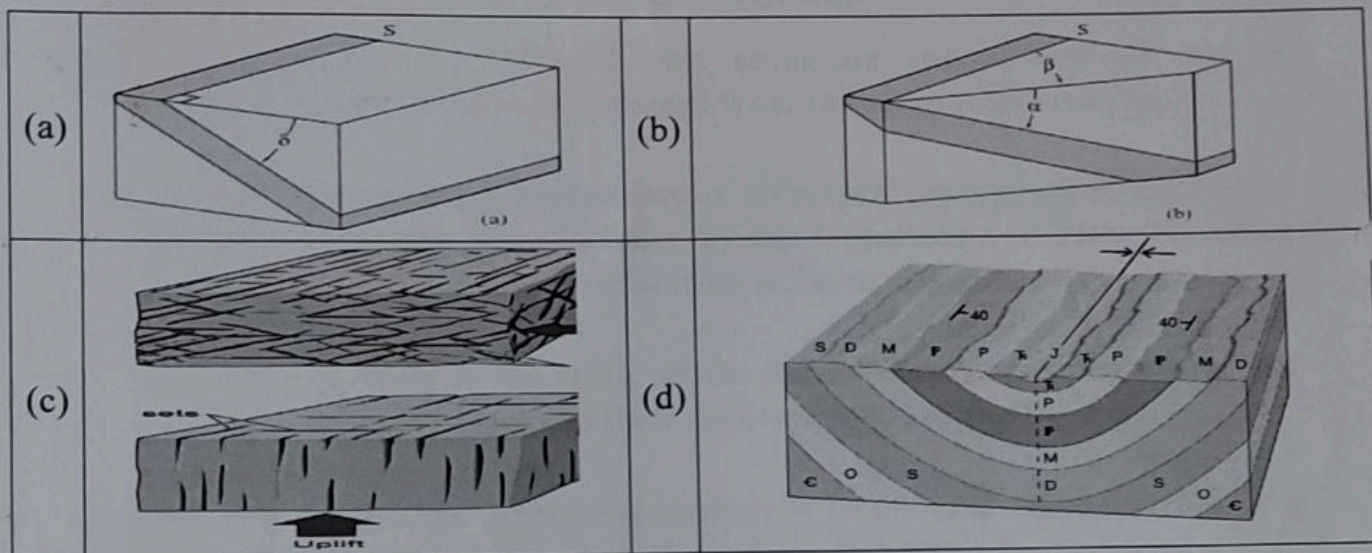
1. The scientists were believed that mountain ranges evolved due to Expanding of the earth that resulted from the progressive cooling.
2. In the 20th century, the foundations of structural geology solidified, but by the 1960s it became a real science by the formulation of Plate Tectonics Theory and considered as a revolution in earth sciences.
3. Structural geology is the study of the three-dimensional distribution of rock units without respect to their deformational histories.
4. The primary goal of structural geology is to understand the Stress field that resulted in the observed strain and geometries.
5. Classification of geological structures based on geometry include planer surface, linear surface, curviplaner surface and not include folds, faults.
6. . Penecontemporaneous: structure forms before full lithification and initial deposition.
7. The deformation mechanism of the fracturing isn't related to cracks in rocks.
8. Combinations of deformation mechanisms contributing to the overall strain.
9. Strike-slip: movement without either shorting or stretching.
10. Deformation refers to any change in shape, volume, position, or orientation of a body resulting from the application of a differential stress.

Q2. Any type of stress may cause brittle strain, using sketches what are the types of faults depends on the type of stress?

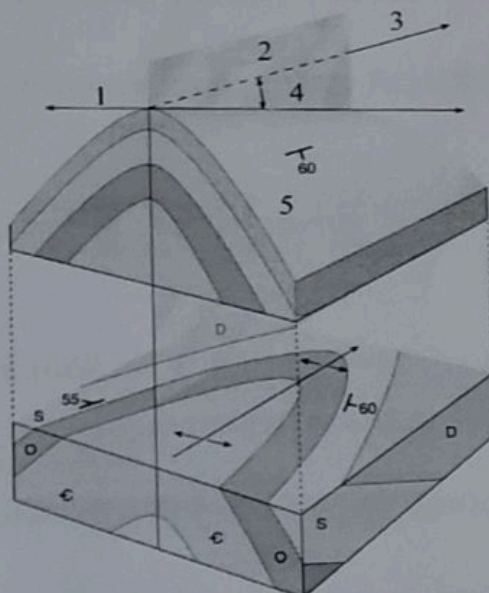
Q3. Good observation, recognition and description of rocks and their structure are very important for field analysis? what are the four relative scales of observations?

Q4. Give four guidelines for the interpretation of deformed area?

Q5. (a): Write down a full descriptive name for the following structures:



(b). Give the names of the numbered parts (1-5) of the following structure and give a full descriptive name.



Good luck!