

**Sample questions to illustrate the format of mid-term test B; November 2012**

Answer all the questions. You are encouraged to use clearly labelled diagrams to illustrate your answers.

Permitted to use: Formula sheets (unmarked); Wulff net; Schmidt net; calculator; tracing paper; graph paper; drawing instruments.

At the end of the test, pass in this paper and all the paper you have used.

Time allowed: 45 minutes

1. Draw a diagram of a typical extensional normal fault system. Make sure your diagram includes the following features, which should be clearly labelled:  
Listric normal fault, Rollover fold,  
Synthetic and antithetic normal faults,  
Horst, graben, half-graben,  
Extensional duplex
3. Explain the difference between the following pairs:
  - a Strain and stress
  - b Strain axes and lines of no finite extension
  - c Pure shear and simple shear
  - d Coaxial strain history and non-coaxial strain history (40%)
3. Explain with the aid of diagrams the differences between the following types of ramps in thrust belts:  
Footwall ramp and hanging wall ramp  
Lateral ramp, oblique ramp, frontal ramp