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科目：地球構造
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國立臺灣大學 106 學年度碩士班招生考試試題

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※ 注意：請於試卷上「非選擇題作答區」內依序作答，並應註明作答之大題及其題號。

1. 解釋名詞 （30%）：(1) brittle & ductile; (2) strain partition (應變分配); (3) Byerlee's law of friction;(4) Griffith crack theory; (5) mylonite (糜嶺岩); (6) thrust duplex.

2. Please describe the Anderson's laws of faulting (請描述安德生的斷層定律及其應用). (10%)

3. 計算下圖斷層的淨位移量（net slip）, 水平位移，垂直位移 並說明此斷層的性質（何種斷層，抬升及侵蝕的部位）（圖中 X = 420 m, Y= 180 m, Z = 180 m). (10%)
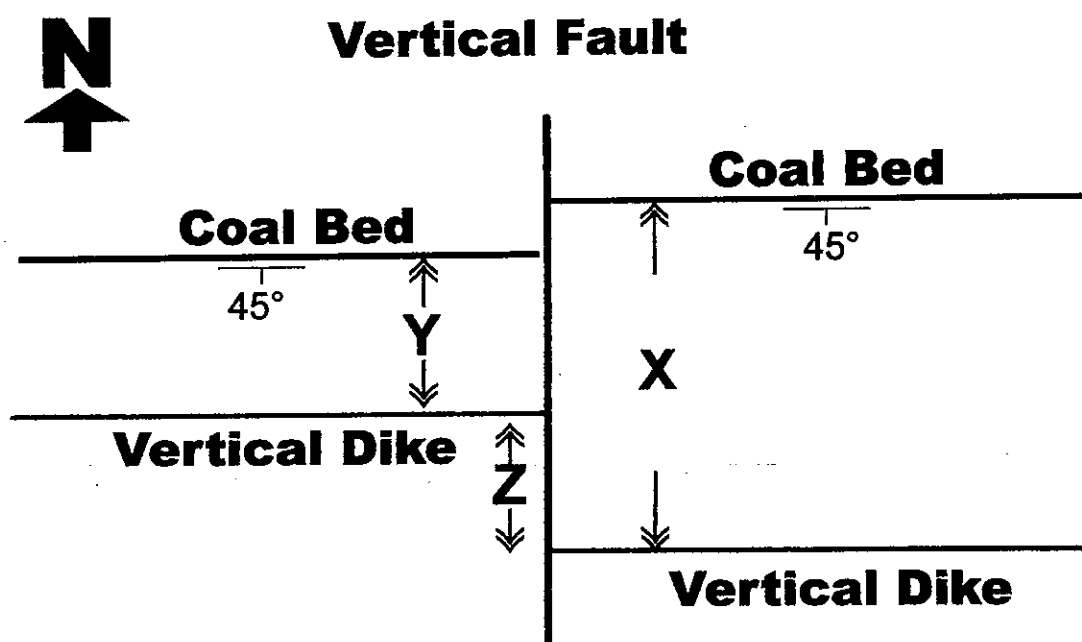

4. Please explain the following major fault type based on parasitic folds in fold vergence. (10%)
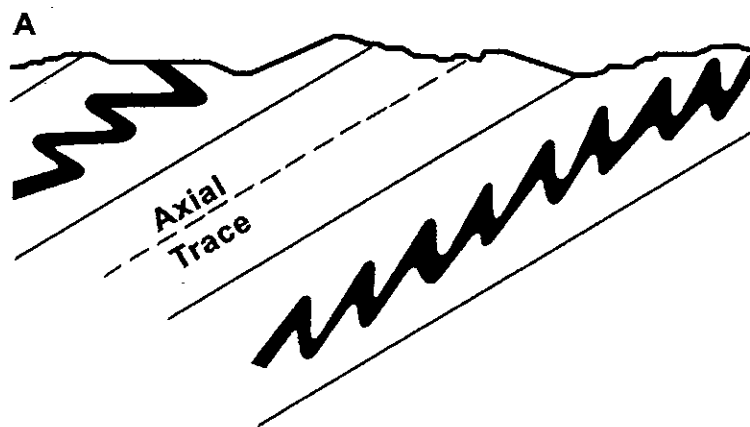
5. Draw and explain the following fault-related foldings: Fault-bend folding, fault propagation folding, detachment folding and trishear deformation. (15 %)

見背面

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6. If cleavage/foliation is axial planar the upright limb of an overturned fold will dip less than the fabric whereas the overturned limb will have a steeper dip. Please explain which is the possible structural interpretation in Figures B and C for the outcrop in Figure A. (5%)
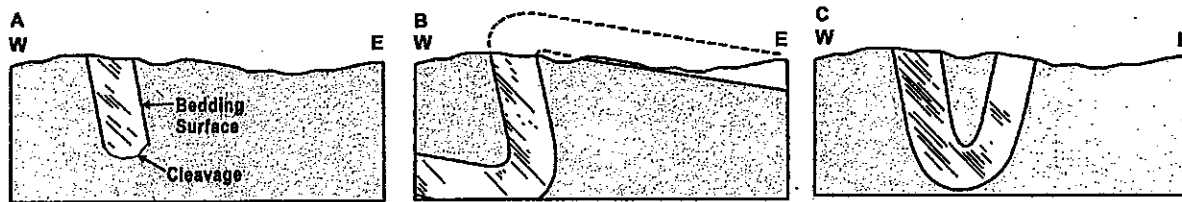
7. Explain in detail the fault rocks based on following figure in terms of strength profile, rock type and deformation mode. (10 %)
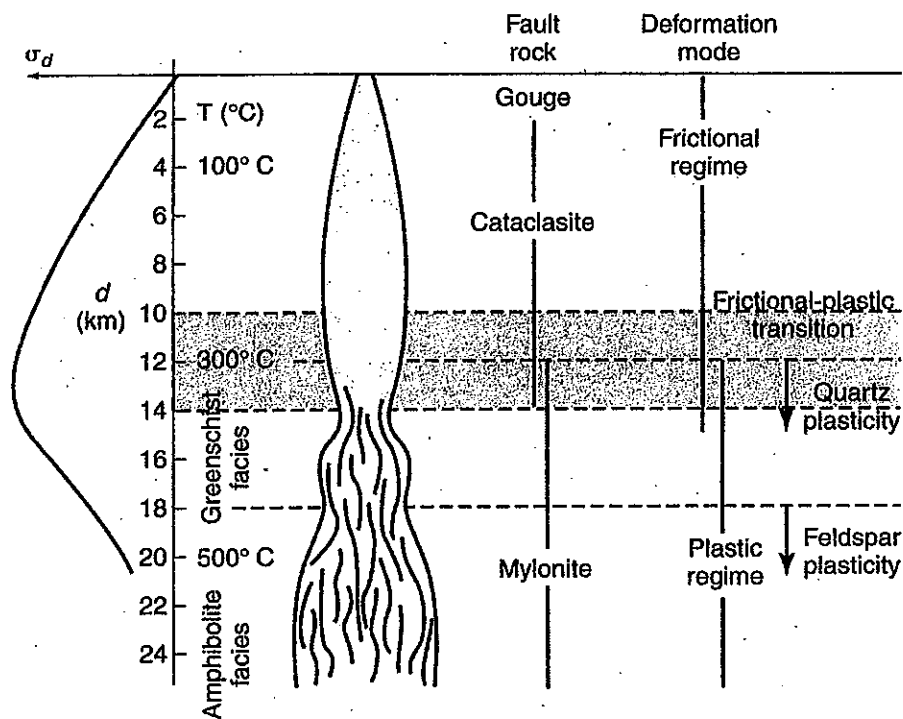
8. Draw and use strain model to explain the origin of subsidiary structures along a sinistral strike-slip fault. (5%)

9. What is a stepover along a strike-slip fault? Draw and explain the restraining stepover and releasing stepover. (5%)

試題隨卷繳回