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國立臺灣大學 105 學年度碩士班招生考試試題

科目：地球物理學

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※ 注意：請於試卷內之「非選擇題作答區」標明題號依序作答。

1. Describe the characteristics of major discontinuities of the top 1000km of the Earth interior (15%)
2. What is “seismic anisotropy” ? State one of the possible causes of seismic anisotropy? (15%)
3. Describe the tectonic setting of the island of Taiwan and its relationship to the seismicity in and around Taiwan. (15%)
4. What is “Bouguer anomaly” ? Depict the major high and low Bouguer anomalies in Taiwan and their likely causes. (15%)
5. It has been proposed that one may prevent a damaging large earthquake by triggering lots of small ones, please state your opinion to such proposal. (15%)
6. Please show that the *half-life*, $T_{1/2}$, of radioactive elements can be expressed as $\log_2 2/\lambda$, where λ is the corresponding decay constant. (10%)
7. Please explain (5%/EA)
 - (1) Asthenosphere
 - (2) Curie temperature
 - (3) Dispersion of surface waves

試題隨卷繳回