

GEOGG124 TERRESTRIAL CARBON: MODELLING AND MONITORING

Answer TWO questions. Answer each question in a separate answer booklet.

1. Explain the term ‘radiative forcing’ and its use in understanding the impact of differing climate change mechanisms.
2. Describe the Farquhar-von Caemmerer-Berry (FvCB) approach to modelling leaf photosynthesis.
3. Why and how do we use Dynamic Global Vegetation Models (DGVMs)?
4. Critically assess the role of, and approaches to **EITHER: (a)** satellite-based, **OR: (b)** ground-based, measurement of Carbon stocks and fluxes in the terrestrial ecosystem.
5. How do we measure global carbon fluxes from wildfire?
6. Provide a detailed example of the use of Data Assimilation in improving estimates of terrestrial Carbon stocks **AND/OR** fluxes.