



Uva Wellassa University, Sri Lanka
 Mineral Resources and Technology Degree Programme - 2008/09
 End Semester Examination- Semester 1
 January-2009

MRT 131-1 Earth Processes and Plate Tectonics

Answer four (4) questions only

Time: One (01) hour

Illustrate your answers with labeled sketch diagrams where necessary

- 01) I. Briefly describe the phenomenon of sea-floor spreading elaborating on the evidences that support it.
 II. Giving examples explain how mountain ranges are formed at continental scale. (25 marks)
- 02) Write short notes on the following.
 I. Mechanism of earthquakes
 II. Richter scale
 III. Geologic time scale (25 marks)
- 03) I. What do you mean by the texture of a rock? Describe three common textures observed in igneous rocks.
 II. Explain the following sedimentary structures.
 (a) Cross bedding
 (b) Ripple marks
 III. Briefly describe the formation of Himalayan mountain range. (25 marks)
- 04) I. Write short notes on,
 a) Contact metamorphism
 b) Detrital sedimentary rocks
 II. Describe different types of plate boundaries. (25 marks)
- 05) Elaborate on the rock cycle using the plate tectonic model. (25 marks)
- 06) I. What are the major assumptions of the plate tectonic model?
 II. Give detailed accounts on the following.
 c) Ductile deformation
 d) Classification of folds based on inter-limb angle (25 marks)