



**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

**B. Sc. (General) Degree
Third Year - Semester II Examination – October / November 2014**

PHY 3105 – PHYSICAL GEOLOGY

Answer two questions only

Time: One hour

- 01.** (a) Using clear diagrams, explain the three major types of tectonic plate boundaries. [15 marks]
- (b) Briefly discuss the **geologic time scale** and identify the **era**, **period** and **epoch** we are in. [15 marks]
- (c) What are the five major characteristics of minerals? Explain each of them briefly. [10 marks]
- (d) What is **mass wasting**? Distinguish between **slurry flow** and **granular flow**. [10 marks]
- 02.** (a) Distinguish between **relative age** and **absolute age** of rocks. [10 marks]
- (b) Explain how the stratification is used to determine the relative age of rocks. [15 marks]
- (c) *“Fossils provide a means to establish relative ages of rocks that are far apart”*
Explain the above statement in detail. Use diagrams where appropriate. [15 marks]
- (d) Explain why *zircon* ($ZrSiO_4$) is widely used in U/Pb dating. [10 marks]
- 03.** Write short notes on the following;
- (i) Cosmic Microwave Background Radiation (CMBR). [12 marks]
- (ii) Linear Variable Differential Transducers (LVDT) used in modern seismometers. [12 marks]
- (iii) Mohorovicic discontinuity. [12 marks]
- (iv) Richter scale. [14 marks]