



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

**B.Sc. (General) Degree in Applied Sciences
Third Year Semester II Examination – April / May 2016**

PHY 3105 – PHYSICAL GEOLOGY

Time: One (01) hour

Answer two questions only.

- 01. (a)** Explain how interactions at tectonic plate boundaries may result in earthquakes, volcanic activity and new landforms. [20 marks]
- (b)** Explain the relative age principles used to establish relative sequences of geologic events and processes. Use diagrams where appropriate. [20 marks]
- (c)** “*Accurate radiometric dating for igneous rocks is relatively easy*”. Substantiate the above statement. [10 marks]
- 02. (a) (i)** What is “mass wasting” in Earth Science? [10 marks]
- (ii)** Briefly explain the different types of mass wasting processes. [20 marks]
- (b) (i)** Discuss the Primary (P) wave and Secondary (S) wave velocities inside the earth paying much attention on the Moho discontinuity which exhibits a large acoustic impedance difference in seismic waves. [20 marks]

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03. Write short notes on the following;

- (i) Primary (P) wave shadow zones. [12 marks]
- (ii) Negative-magnitude earthquakes (in Richter scale). [12 marks]
- (iii) "Mohs" hardness scale of minerals. [12 marks]
- (iv) Secondary (S) wave behaviour in fluids. [14 marks]

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