

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

B.Sc. (General) Degree in Applied Sciences

Third Year Semester II Examination – February / March 2019

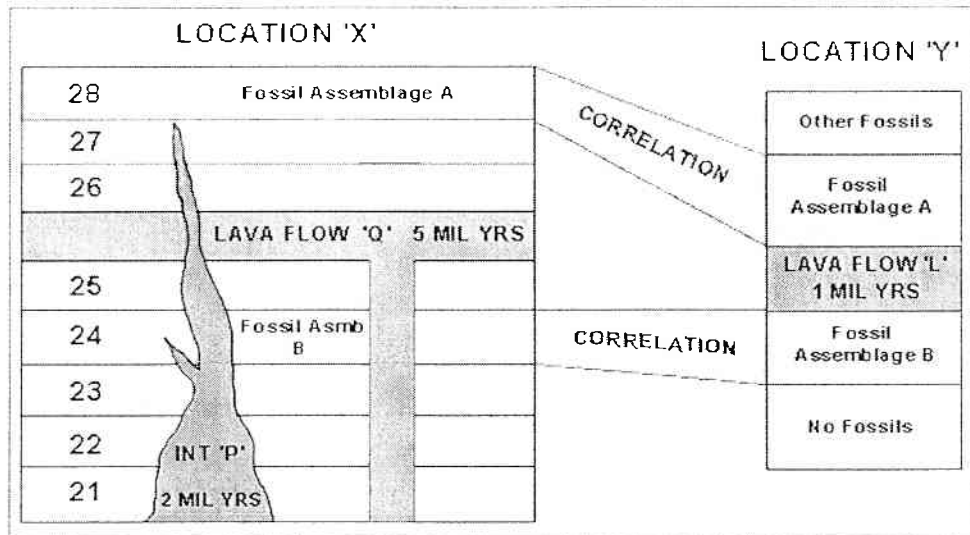
PHY 3105 – PHYSICAL GEOLOGY

Time: One (01) hour

Answer **TWO** questions only.

01. (a) (i) What is “mass wasting” in Earth Science? (05 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 highlighting on the P wave shadow zone and S wave shadow zone. (15 marks)
- (ii) What is Moho discontinuity which exhibits a large acoustic impedance difference in seismic waves? (10 marks)
02. (a) List the relative age principles used in the determination of the relative age of rock strata? Explain each of them in detail. (20 marks)
- (b) Using “bracketing and correlation”, determine the relative age of rock strata 24 and 28 of the following diagram. (20 marks)

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- (c) Comment on the lava intrusion "P" in the diagram. (10 marks)

Write **short notes** on the following;

- (a) Formation of the Himalaya mountain range (12 marks)
- (b) Zero – magnitude earthquakes. (12 marks)
- (c) San Andreas fault. (12 marks)
- (d) The theory of oscillating universe. (14 marks)

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