

# UNIVERSITY OF COLOMBO – SRI LANKA

## FACULTY OF ARTS

### SPECIAL DEGREE EXAMINATION IN ARTS (GEOGRAPHY) – PART I

#### FIRST SEMESTER END EXAMINATION – 2018

#### GYG 2126 – ADVANCED GEOMORPHOLOGY

**02 Hours**

Answer **three (03)** questions only.

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1. (a). What do you mean by the “Geological time scale”? (02 Marks)
- (b). Name the major Eras and periods of Geological history of the earth . (04 Marks)
- (c). State briefly major outstanding events taken place during the above mentioned Eras and periods. (06 Marks)
- (d). Explain the necessity and the importance of applying the Geological timescale for studying the Geomorphology. (08Marks)
  
2. (a). What is meant by “Tetrahedral Theory”? (03 Marks)
- (b). On what reasons the “Tetrahedral Theory” differ from the Wegerner’s Continental drift Theory. (03 Marks)
- (c). State the evidences used by Wegerner to prove his continental drift theory. (06 Marks)
- (d). Discuss to what extent the wegener’s theory of continental drift explain the present distribution of continents and Oceans of the world. (08 Marks)
  
3. (a). Name of the Lithospheric plates numbered in the world map given. (04 Marks)
- (b). What are the differences of plates boundaries taken place due to the Nature of the plate movements? (04 Marks)

- (c). State the forces caused to make plate movements. (06 Marks)
- (d). Discuss the major effects of plate movements to the earth crust. (06 Marks)
4. (a). Define "Natural River basin" . (03 Marks)
- (b). Draw a longitudinal profile depicting three stages of river course. (04 Marks)
- (c). State prominent landforms and processes taken place in those stages of river course. (05 Marks)
- (d). Examine the Variations of Channel characteristics taken place in the longitudinal profile of the river course from upper reaches to the mouth (08 Marks)
- 5 (a). Define "Arid zone" . (03 Marks)
- (b). Examine the action of water as an agent of denudation in Arid zone. (05 Marks)
- (c). State landforms developed by water in the Arid zone (06 Marks)
- (d). Explain with diagrams the formative process of selected two landforms from the above. (06 Marks)
- 6 (a). Describe the "Glaciation process". (03 Marks)
- (b). Classify the Glaciers based on the regions of their origin . (05 Marks)
- (c). Name the erosional and depositional landforms created by the Valley glaciers. (06 Marks)
- (d). Selecting any two Glacial landforms mentioned above and explain their formative processes with appropriate illustrations. (06 Marks)

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World map for the Question No. 3 (a)

