



Uva Wellassa University of Sri Lanka
Faculty of Science and Technology
Mineral Resources and Technology Degree Programme
1st Year 1st Semester Examination – August/September 2014



MRT 131-1 – Earth Processes

Number of questions : Twelve (12)

Answer all questions

Time allocation: One (01) hour

Mark allocation: 120 marks (each question carries 10 marks)

Illustrate your answers with sketches/diagrams where necessary

Index Number:

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12. By applying various principles, draw a cross section of an area in which the following sequence of events occurred. The relative time relationship for all events should be clear from your single cross section that shows what the geology looks like at present.
- Metamorphism took place in the Archean. During later Precambrian time, uplift and erosion reduced the area to a plane.
 - Three layers of marine sedimentary rocks were deposited on the plain during Ordovician through Devonian time.
 - Although sedimentation may have taken place during the Mississippian through Permian, there are no sedimentary rocks of that age in the area.
 - A vertical dike intruded all rocks that existed here during the Permian.
 - A layer of sandstone was deposited during the Triassic.
 - All of the rocks were tilted 45° during the early Cretaceous. This was followed by erosion to a planer surface.
 - The area dropped below sea level, and two layers of Tertiary sedimentary rocks were deposited on the erosion surface.
 - Uplift and erosion during the Quaternary resulted in a slightly hilly surface.
 - Following erosion, a vertical dike fed a small volcano.