

**UNIVERSITY OF RUHUNA**  
**BACHELOR OF SCIENCE IN FISHERIES AND MARINE SCIENCES DEGREE**  
**Level I Semester I - July/August 2015**

**OCG1112 -- Introduction to Oceanography**

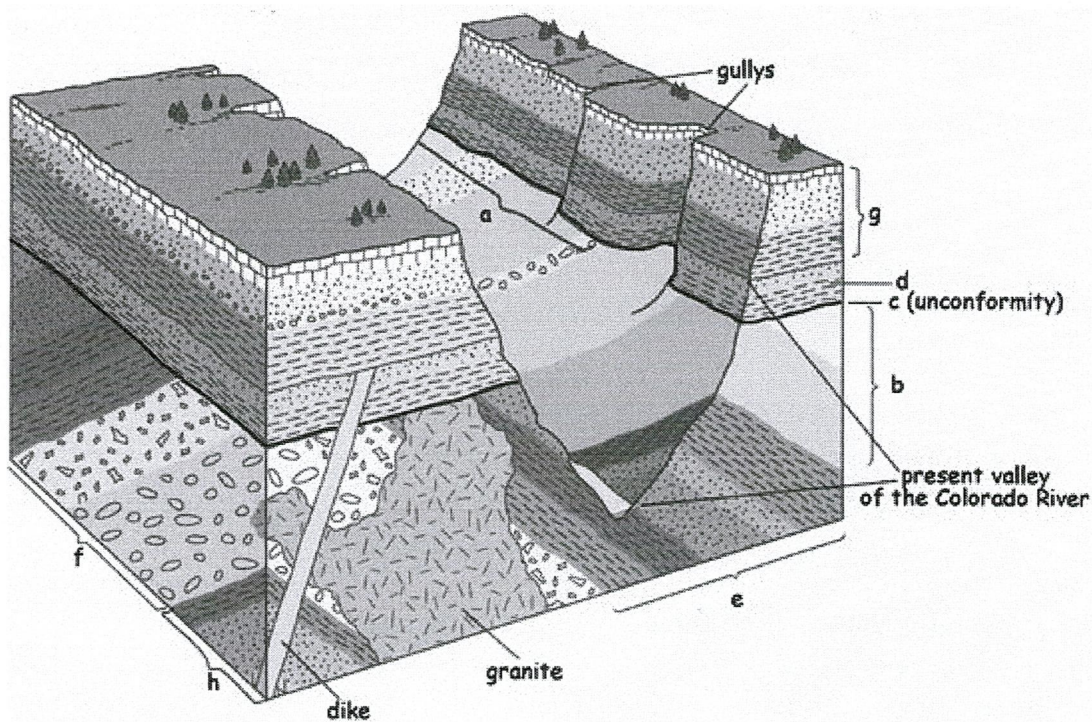
**Time: 02 hours**

**Answer any Four (04) questions**

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01. Write short notes on **any three (03)** of the following
- a) Ocean zonation according to light penetration
  - b) Miller-Urey Experiment
  - c) Geologic time Table
  - d) Voyage of Beagle
02. "Physical setting of the ocean is a key factor that influences its productivity". Discuss this statement by providing suitable examples.
03. Explain the differences between **any two (02)** phrases given below with appropriate drawings.
- a) "Normal Fault" and "Reverse Fault"
  - b) "Non Conformity" and "Disconformity"
  - c) "Overtured Anticline" and "Overtured Syncline"
04. Answer following questions based on the United Nations Convention on Law of the Sea (UNCLOS).
- a) What are formula lines ?
  - b) What are constrain lines?
  - c) Explain how to determine the outer edge of the continental margin based on formula and constrain lines, using a suitable diagram.

05. Using the figure given below answer the questions i to iv



- i. Briefly explain the method/s which can be used to determine the age of rocks in this area.
  - ii. Rank each of the beds a, b, d, e, f, g and h, based on their age of deposition. (Youngest rock = 1 and oldest rock = 7)
  - iii. Name **three (03)** principles adopted to arrange the above sequence.
  - iv. Using the above principles mentioned in (ii), describe the geologic evolutionary process shown in the above figure.
06. a) Describe special scientific capabilities of any one of the world's leading marine research institutes.
- b) What is meant by an ocean drilling program? Explain how it contributes to expand the knowledge on marine geology.

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