# TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIROMENT & HEALTH SCIENCES

**UNIVERSITY EXAMINATION FOR:**

DEGREE IN MARINE RESOURCE

BSMR 16S/YEAR1/SEMESTER 1

AES 4104: COASTAL GEOMORPHOLOGY

END OF SEMESTER EXAMINATION

**SERIES:**DECEMBER2016

**TIME:** 2HOURS

**DATE:**Pick DateSelect MonthPick Year

**Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, examination pass and student ID*

This paper consists of **TWO**Section(s). Attemptquestion ONE (Compulsory) and any other TWO questions.

**Circle the correct answer in section A.**

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**Question One (Compulsory) (30 marks)**

a) Define the following terms:

i. Coast (2 marks)
ii. Coastal zone (2 marks)
iii. Offshore zone (2 marks)
iv. Littoral zone (2 marks)
v. Beach (2 marks)
vi. Shore (2 marks)
vii. Continental shelf (2 marks)
viii. Geomorphology (2 marks)

b) Describe these parts of a wave (6 marks)

- Crest
- Trough

- Height
- Amplitude
- Length
- Period

c) Processes at work in coastal waters provide the energy that shapes and modifies a coastline. State FOUR (4) of these processes. (4 marks)

d) Describe the difference between eustatic sea level rise and isostatic sea level rise? (4 marks)

**Question Two**

a) Explain the difference between emergent and submergent coastlines (4 marks)
b) Discuss any TWO (2) features found along emergent coastlines and TWO (2) features found along submergent coastline. (16 marks)

**Question Three**

Discuss the occurrence, formation, and ecological significance of each of these features occurring in littoral or sublittoral areas of the coast

a) Mangroves (5 marks)
b) Coral reefs (5 marks)
c) Estuaries (5 marks)
d) Lagoons (5 marks)

**Question Four**

a) Discuss the FIVE (5) main erosional processes (10 marks)
b) Name and discuss how any FIVE (5) erosional coastal features are formed (10 marks)

**Question Five**

Discuss the THREE (3) types of boundaries that will emerge as a result of this movements of lithospheric plates giving examples of features found in each. (20 marks)