



**Department of Surveying and Geoinformatics**  
**School of Environmental Technology**  
**Federal University of Technology**  
**Minna, Nigeria**

**SVG416: Hydrographic Surveying**  
**First Semester Examination, 2018/2019 Session**

**DURATION: 2.5 Hours.**

**Answer any 4 Questions**

- 1a. Examine the various theories of tide.
- b. Explain the various ways in which tide can be measured.
- c. Write short notes on the following:
  - i. Spring and Neap tides
  - ii. Equatorial Spring Tide
  - iii. Lowest Astronomical Tide
  - iv. Estuary
  - v. Perigee and Apogee
2. Examine the greenhouse effect in relation to global sea level rise, and also discuss the implications of the latter on the coastline.
3. How can the knotty problem of coastline erosion be controlled?
- 4a. Describe the two general operating methods used to obtain GPS positions from dynamic horizontal control.
- b. Why are vertical controls necessary?
- c. Write short notes on the following
  - i. Continental shelf.
  - ii. Dunes
  - iii. Beaches
  - iv. Eddy
  - v. Longshore current.
- 5ai. Explain what Integrated Coastal Zone Management (ICZM) means.
- ii. Why do we need ICZM?
- iii. List the management approaches for effective ICZM.
- b. Write short notes on the following:
  - i. Barometric levelling.
  - ii. Spirit levelling.
  - iii. Trigonometric Heighting.
  - iv. Hydrostatic levelling.