

SECTION A

- 1a. The basin of Lake plays a significant role in establishing its physical, chemical and biological conditions. Discuss
- b. In relation to Lake formation and shapes, differentiate between the morphology and morphometry of a Lake
- c. Describe any **seven** principal measurements and indices used in the study of morphometric features of a typical Lake
- 2a. Using appropriate examples (at least three) distinguish between lentic and lotic aquatic ecosystem
- b. With the aid of a diagram, discuss the zonation of a typical lake
- 3a. Aquatic ecosystem presents three importance interfaces that regulates certain mechanisms in the system, name the interfaces in relation to vertical profile of the Lake
- b. Enumerate the important role each interface plays in the balance of substances in a Lake

SECTION B

- 4a. In relation to circulation of Lakes, write short notes on the following;
(i) Meromictic Lakes (ii) Holomictic Lake (iii) Polymictic Lakes (iv) Dimictic Lakes
- b. Lakes can be classified based on productivity; using appropriate examples discuss how a water body can be formed based on the phenomenon
- 5a. Define thermal stratification and discuss its pattern in a typical Lake
- b. Based on classifications, mention and describe the lakes formed through thermal stratification
6. Write on the vertical distribution of dissolved oxygen
- b. Enumerate the importance of the following properties in a Lake
(i) Light (ii) Density (iii) pH (iv) Nitrogen compound