

Integ. Msc App Geo Semester-4 Examination

EC 202

Oceanography & Marine Science

Time : 2-30 Hours]

April-2024

[Max. Marks : 70

QUESTION – 1 Write the following:**7 marks each**

- i. Elucidate with diagram the interior structure of Earth.
- ii. Describe the external components of Earth.

OR

- i. Name and explain in brief the three physiographic provinces of the Ocean
- ii. Explain with diagram the continental margin and its components

QUESTION – 2 Write the following:**7 marks each**

- (i) Differentiate between Pelagic and Benthic environment.
- (ii) Describe the major chemical composition of oceans and seas.

OR

- i. Describe the formation of ocean basins.
- ii. What are fundamental properties of ocean? Also, describe the effect on these properties with increase in depth.

QUESTION – 3 Write the following:**7 marks each**

- (i) Describe the atmospheric circulation cells with the help of a diagram.
- (ii) What factors effect the surface ocean currents?

OR

- i. What are different types of surface ocean flows?
- ii. What is thermohaline circulation?

QUESTION – 4 Write the following:**7 marks each**

- (i) Describe and differentiate the marine fauna of benthic and pelagic environment
- (ii) Why do some places on earth experience diurnal tides whwere as some experience semi-diurnal tides.

OR

- i. What are the different types of marine sediment deposits?
- ii. What are different wave properties and how different waves are classified on the basis of them?

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QUESTION -5*Attempt any seven out of twelve.**14 marks**

1. Differentiate between phytoplankton and zooplankton in one line
2. The shells of Foraminifers are made up of:
 - a. Silicate
 - b. Phosphate
 - c. Calcium Carbonate
 - d. They do not have shells
3. Phytoplankton are:
 - a. Scavengers
 - b. Producers
 - c. Primary Carnivore
 - d. Secondary Carnivore
4. Primary production is highest in?
 - a. Shallow estuaries and reefs
 - b. Open ocean
 - c. Continental Shelves
 - d. Deep estuaries and upwelling areas
5. What is Carbonate Compensation Depth?
6. Grain Size increases as we go towards offshore
 - a. True
 - b. False
7. A sharp density gradient with depth is called _____
8. When the crest is oversteepened and unstable, and bottom friction retards the base of the wave, permitting the top of the wave to get ahead. This results in the wave's?
 - a. Surfing
 - b. Adding
 - c. Breaking
 - d. Eroding
9. Spring tide occurs during _____ Phase of Moon and Neap tide occurs during _____.
Choose the correct combination.
 - a. New moon, Full Moon
 - b. First quarter, New moon
 - c. Last quarter, Full Moon
 - d. Full Moon, Last quarter
10. The intense zone of low pressure from 5N to 5° S is called.
 - a. Doldrums
 - b. Horse latitude
 - c. Furious fifties
 - d. Screeching sixties
11. What are Circulation Gyres?
12. The net water transport in Ekman Spiral is _____ to Wind direction
 - a. Perpendicular
 - b. Parallel
 - c. 180°
 - d. 45°