

Marine Biology

LS4208

Answer any five questions

1. Which feature is distinctly prominent in the stem and root of *Distichlis spicata* and why? Elaborate ecological value of salt marsh system. What is the major difference between freshwater and saltwater marsh? [2+5+3=10 marks]
2. How corals recruit dinoflagellate cells? What is the density range of *Symbiodinium* sp. in a typical coral surface? Mention the major difference between dinomastigote and coccoid stage? State the major difference between branching and foliaceous coral? [3+2+3+2=10 marks]
3. Why trenches are found in seafloor? What is the significance of continental shelf? In which ocean basin guyot feature is very common? Why sediment deposits are reported in continental margins? [3+2+2+3= 10 marks]
4. Elaborate three primary factors that influence salinity in coastal water. Salinity is low in the equator- explain [5+5=10 marks]
5. In coastal water with CDOM the color is yellow-brown: explain. Mention the main sources of DOC in coastal water. How DOM shapes microbial diversity vertically in ocean systems? [4+3+3= 10 marks]
6. Why numerous species of *Halophila* are found up to 40 m depth in coastal water? How temporal anoxia is overcome in seagrass? The Indo Pacific region is rich in seagrass species diversity- mention three primary points to support this statement [3+4+3=10 marks]
7. In rocky shore *Littorina* dominates- how this genus retains moisture? Mention the key difference between clam up and run & hide strategy? Why space is a critical factor for rocky shore biological communities? [4+3+3=10 marks]

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