Q.1 Account for variation in oceanic salinity & discuss its multi-dimensional effects. (250 words).

Ans.1 Salinity is the measure of saltness in water. It is measured in ppt (parts per thousand).

Factors responsible for affecting the ocean salinity are :-

① Rate of Evaporation - Oceans or seas in tropics have more salinity as compared to poles. This is because in tropics, temp. is high due to which evaporation is high & humidity is low.

② Mixing of Freshwater - Ocean or seas where big rivers drain their water in large amt. are comparatively less saline. In poles, melting of icebergs can add freshwater.

③ Location of Oceans - Enclosed seas have more salinity like Mediterranean Sea because less degree of water mixing by ocean currents.

Ocean salinity is just considered as

as a mere property of ocean water but it has several effects :-

① Movement of Currents -
Warm water has more salinity & thus it is more dense. So, it sinks down. So, as the warm ocean currents travels towards poles, the cold currents having less density are able to move because of higher density of warm ~~water~~ currents. Due to this reason, the ocean currents are present.

② Ocean water not frozen -
Despite having various conditions, the ocean water doesn't freeze due to salinity. Even at depth of the oceans where sunlight is not able to penetrate, the water is still in liquid form.

③ Planktons -
Oceans are comparatively saline & hence denser than freshwater bodies. So, anything which sinks in freshwater floats in oceans. One such example is of Planktons which are present in oceans & they are a main source

of marine biodiversity.

Therefore, the importance of salinity in oceans can't be neglected.