Different types of plastic pollution in oceans

Mainly three types of plastic pollution are micro plastic, mega- plastic, and macro-plastics. Micro and mega plastic contains collected in elevated density in a northern hemisphere, determined around water fronts and urban centres (Rhodes, 2018). Plastic may be discovered off the islands, the reason behind this is transporting debris. The macro plastic and mega plastic are discovered in footwear, packaging, and other household items which has been cleansed of discarded and ships in landfills. The items which are related to the fishes are most probably to be discovered surrounds remote islands. Plastic debris is divided as either secondary or primary sections. Primary plastics contain original form when gathered for instance, cigarette butts, micro beads, and bottle caps. Secondary plastic contain smaller plastic collection from the primary plastic degradation process. The accumulation of waste plastics in the marine environment is classified into these levels so that human can differentiate and prepare different strategies for each type. This classification is mainly based on plastic size (Critchell, et al., 2019). In this context, Microplastics are located in commercial products. Hence, the microplastic particles generate from environmental degradation via various biological, chemical as well as physical processes. These Microplastics are found in abundance in the marine system when some synthetic pollutants interact with metals and organic pollutants chemically. The huge density of these microplastics affects their distribution in the ocean water. Plastics that have a comparatively low-density float in water whereas some plastics like polystyrene, polyamide as well as polyvinyl chloride remain in the deep side of the ocean due to heavy density. In this context, Salinity is the major aspect that affects on chemical degradation of plastic.Several cosmetic as well as household products which cannot filter by water filtration systems along with large pieces of plastic covered the oceans in large proportion. People use microplastics and through them into the water without knowing their impact. The by-product of several manufacturing products contaminated in the ocean as the result of mishandling as well as accidental spills. Even this plastic pollution indirectly reaches humans as they use to eat sea animals (Critchell, et al., 2019).

Most of the plastic includes bottle caps, plastic bags, plastic water bottles as well as Styrofoam cups along with balloons and cigarette butts (Monteiro et al., 2018). Different types of microplastics remain in the ocean for different periods like plastic bags can last in the ocean for up to 50 years as well as polyethylene bottles can exist for 450 years, cigarette ends can take 1-5 years and polystyrene cups also can remain for 50 years or more. Thus, once plastic

accumulated in the ocean then it takes a very long time to destroy as compare to ocean species. This plastic is observed everywhere in the oceans. In this context, Litter enters into the ocean level via two mediums. The first is ‘diffuse point’ such as water streams as well as windblown debris and the other one is ‘point sources' which exist in towns, urban areas, and industrial areas just next to the beach (Monteiro et al., 2018). However, the long exposure to sunlight can result the photo degradation of plastic as the ultraviolet radiations oxidize the polymer matrix. This plastic degradation is categorized differently which depends on the cause such as:

- Biodegradation involves the action of living organisms usually microbe
- Thermo-oxidative degradation involves slow oxidative breakdown at moderate temperatures.
- In Photodegradation process, sunlight degrades plastic.
- The hydrolysis process include reaction with water
- Thermal degradation degrades plastic by using high temperatures.