Introduction:

The word 'Mollusca' is a Latin word which means 'soft'. Aristotle is the father of the word 'Mollusca'. Molluscs are soft bodied animals, a large and most important group of invertebrates which occupies all the possible habitats except aerial. According to Darwin-Song (2008), molluscs are the largest phylum among the marine water invertebrates and it occupies 23% of total marine living animals. India has super extensive molluscan fishery resources along her long coast. In the numerous bays, brackish water resources and in the seas around the sub-continent, comprising of marine molluscs belonging to different taxonomic groups, oysters, mussels, window-pan oysters, pearl oysters, chanks, cuttlefish, squid, octopus which have been captured since time immemorial for food, pearls and shells utilized in several ways. Studies on edible marine molluscs of India date back to the end of last century. According to Yennawar and Tudu, 2014, the molluscs are benthic organisms that live on or in, the bottom of the water body with greater than 1.0 mm in size. Its body is made up of head, visceral mass and locomotory or digging foot, epidermis is forming mantle, secrets calcareous spicules or produces one or more shells. Chitinous is ribbon like or radial having small size teeth in the mouth but absent in Bivalves.

Carolus Linnaeus (1758) adopted the name, Mollusca, a term which was in fact proposed by Johnston (1650), but without developing any real concept of the phylum - Mollusca. Cuvier (1795) had shown better understanding of the group, and his concept approximates to modern ideas. In the beginning time, several other groups such as barnacles, brachiopods and other shelled forms animals were classified together with the molluscs.

The molluscs or mollusks are composed of the very large phylum - Mollusca among the all invertebrate animals. It is recognized around 85,000 extant species of molluscs. A large number of molluscs also live in terrestrial habitats and also in freshwater bodies like pond, like, river, reservoir, cannel etc. They are very highly diverse group, not only in

anatomical structure and in size, but also in habitat and in behaviour. The phylum - Mollusca is ideally divided into 10 taxonomic classes, of which two are presently extinct entirely. Cephalopods molluscs like cuttlefish (*Sepia aculeata*, *Sepiella inermis*), octopus (*Octopus macropus*) and squid (*Loligo duvauceli*) are among the most neurologically advanced of all the invertebrates animals and either the colossal squid or the giant squid is the largest well known invertebrate animal species. The gastropods (slugs and snails) are by far the most numerous molluscs species in the terms of classified molluscs species and an account for 80% of the total molluscs.

The most universal three features of the modern molluscs species are a mantle with a very significant cavity which is used for the purpose of excretion and breathing, the presence of the radula (not found in bivalves), and the structure of the nervous system. Apart from these three characters, the molluscs show the great morphological diversity, so many text books in the World base their characteristics descriptions on a "hypothetical ancestral molluscs". On the top portion of the body, it is seen a single, "limpet-like" shell, which is mainly made of the proteins and the chitin reinforced with calcium carbonate ($CaCO_3$), and is secreted by the mantle covering the whole upper body surface. The underside of the molluscs species consists of a single muscular "foot".

Although the molluscs species are coelomates, the coelom tends to be small. The main cavity of the body of molluscs species is a hemocoel through which blood circulation occurs; their blood circulation systems are open mainly. The "generalized" mollusc's feeding process consists of a rasping "tongue", the teeth known as radula, and a complex digestive system in which exuded mucus, muscle-powered and microscopic, "hairs" called cilia play several important roles in daily activities in life.

The generalized molluscs species have mainly two paired of nerve cords, and in bivalves it is three. The brain, in molluscs species that have one, encircles the esophagus. Most of the molluscs species have eyes, and all have sensors to detect the touch, chemical receptions, and vibrations. The molluscan reproductive system is simplest type and it relies on external fertilization, but more complex variations occur.

Eggs are produced by all molluscs species, from which may emerge trochophore larvae, more complex veliger larvae, or miniature adults. Good evidence exists for the appearance of bivalve, cephalopods and gastropods, in the Cambrian period 541 to 485.4 million years ago. However, the history of molluscs evolution emergences from the ancestral Lophotrochozoa and of their diversification into the well-known fossil and living forms are still subjects of vigorous debating matter among the scientists.

Molluscs species have been and still now are an important food resource for human beings, but with a risk of food poisoning from toxins in some molluscs species that accumulate under certain conditions in molluscs species and many countries in the world have regulations to reduce this risk. Molluscs species have, also been the source of important luxurious goods, sea silk, notably pearls, tyrian purple dye and mother of pearl, for centuries. In some preindustrial societies, the shells of molluscs have also been used as money. Mollusc species can also be represented as hazards or pests for human activities. The bite of the blue-ringed octopus is often very lethal and that of *Octopus apollyon* causes inflammation that can continue for over a month. Stings from a few species of large tropical cone shells can also kill, but their sophisticated, though easily produced, venoms have become important tools According to Colley, Daniel.; Bustindny, Amaya, Secor, Evan, King, Charles. (2014), in neurological research Schistosomiasis (also known as bilharzia, bilharziosis or snail fever) is transmitted to human body via water snail hosts, and affects about 200 million people across the world. Snails and slugs can also be made serious agricultural pests and accidental or deliberate introduction of some snail species into new environments has seriously damaged some aquatic and terrestrial ecosystems.

Based on the respiratory organs, Milne Edwards (1848) divided the class Gastropoda into Opisthobranchia, Prosobranchia, and Pulmonata that have been traditionally accepted. Bieler (1992) made an excellent review of the gastropod phylogeny and concluded ‘any attempt to present the classification of Gastropoda would be premature at this point.

The two classes Cephalopoda and Scaphopoda are not subjected to many changes. Three names namely, Bivalvia, Lamellibranchia and Pelecypoda have been used for the other major class of Mollusca. The term Bivalvia was first used by Carolus Linnaeus in the 10th edition of the book 'Systema Naturaee'.

It was later adopted by Hass (1929) and accepted by Newell (1969). The old term Lamellibranchia is now to designate a subclass. Morton and Yonge (1964) presented most accepted classification of the phylum mollusca which is followed in the book (Text book of Zoology: Vol.1, 1972) written by parker and Haswell.

Molluscs species are found 10190 meter deep in the ocean to 5000 meter of elevation. It is a highly diversified group, differs from other groups in size, shape, number as well as its habit and habitat. Winckworth (1940), estimates 31643 numbers of marine molluscs species, 8765 numbers of freshwater molluscs species and 24503 numbers of terrestrial molluscs species, making a total numbers of 64,911 molluscs species (approx. 65,000). Subba Rao, Dey and Barua (1995) made a conservative estimate 66535 numbers of molluscan species of which the Indian share is 5070 numbers of molluscan species, among them 3400 marine molluscs, 183 fresh water molluscs and 1487 terrestrial molluscs.

Chapman, A. D. (2009), estimates of accepted described living species of molluscs vary from 50,000 to a maximum of 120,000 species. In 1969 David Nicol estimated the probable total numbers of living molluscs at 107,000 of which were about 12,000 fresh-water, 35,000 terrestrial and 60000 marine molluscs. The Bivalvia among the marine invertebrates would comprise about 14% of the total and the other five classes is less than 2% of the living molluscs. Haszprunar in 2001 estimated about 93,000 molluscs species which include 23% of all named marine living organisms.

Molluscs species are second only to arthropods in numbers of all living animal species far behind the arthropods 1,113,000 but well ahead of chordates' 52,000. About 200,000 living species in total are estimated and 70,000 fossil species, although the total number of molluscs species ever to have existed, whether or not preserved, must be many times greater than the number alive today.

The coastal strip of land where land meets the sea is the home of the richest marine communities. The total number of biomass in a square meter at the low-tide line is at least ten times higher than that of in most abyssal area. Invertebrates are the one of major

component of this fauna. They are also the major component in all existing marine habitats. They all together help the entire ecosystem. Measurements of change in marine molluscs communities have for several decades been widely used in identifying and monitoring human impacts on the sea. Molluscs community analyses have proven to be useful in assessing the environmental impacts of coastal discharges, chemical contamination of the sediments, commercial dredging, sludge dumping, trawling, oil exploration and introduced marine pests. This is largely because benthic organisms are relatively non-mobile and integrate effects of the pollutants over time. Most importantly, however, molluses organisms are comparatively easy to sample identify and count.

The marine molluscs have an important place in an ecosystem for maintaining it. They are the major food source for humans as well as other secondary consumers in the ecosystems which are also important bio-resource like fishes. Molluscs play a major role in ecosystem by filtering phytoplankton and then acting as a good source of food for higher organisms living in upper tropic level such as fishes. They oxygenate the bottom by reworking sediments and play a basic role in breaking down organic materials before bacterial remineralization. A number of molluscs particularly bivalves and cephalopods are consumed by human and others animals. They are also used as biological indicators because they can provide information on environmental conditions either due to the sensitivity of single species (indicator species) or because of some general feature that makes them integrate environmental signals for a long period of time.

Their role in the ecosystem cannot be over looked as many of them are commercially important species and other are biological indicators as well as important in food web. It is proposed to conduct the study on the marine molluscs along the Digha coast.

Molluscs exhibits of significant diversity in colouration, sculpture and shell shape. The marine molluscs display flamboyance in colour and within and between the species comparison to the terrestrial and freshwater molluscs. Diversity is also evident in molluscs in their feeding habits. They are herbivores, carnivores, scavengers and deposit feeders, suspension feeders. Sometime they are considered as parasites and show commensalism.

Some studies on marine biodiversity at Digha coast as well as surrounding coastal areas were carried out in the past (Subba Rao, *et al*., 1995). These studies started with work by Goswami and Bharati (1992) which provides the overview of marine biodiversity at Digha coast for the first time. But, the first comprehensive account of marine molluscs was prepared by Ramkrishna *et al*., 2003. Keeping view of these studies, the study was planned to monitor the population of individual group, their distribution and status. This deals with comparative account of marine molluscan fauna at various study locations.