**Aquatic Invertebrate**

**LAB (1)**

**Phylum: protozoa (protista)**

**1-Sub phylum: Sarcomastiqophora**

**Class: Cryptophyceae**

**Order: Cryptomonadina**

**Genus: *Chilomonas***

**2-Sub phylum: Ciliophora**

**A-Class: Gymnostomatea**

**Order: Pleurostomatida**

**Genus: *Litonotus***

**B-Class:Heterotrichea**

**Order: Heterotrichida**

**Genus: *stentor***

**3- Sub phylum: Ochrophyta**

**A-Class: Antinochrysophceae**

**Order: Actinophryida**

**Genus: *Actinosphaerium***

**B-Class:Granuloreticulosea**

**Order:Foramlniferida**

**Genus: *Globigerina***

**4-Sub phylum: Bryozoa**

**Class: Gymnolaemata**

**Order: Cheilostomata**

**Genus: *Bugula***

**Genus: *Chilomonas***

-Unicellular organism

-The apex is shifted to the left side

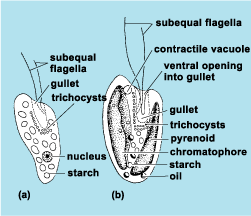
-Two equal flagella for locomotion

- One nuclus in the posterior part

- Cytoplasm includes pyrenoid and starch

- One contractile vacuole is found in the apex of the cell

(for regulation of osmotic pressure)

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***Chilomonas***

**Genus: *Litonotus***

-Predatory ciliate

-Highly elongated body with anterior neck

- Mouth located alongthe anterior margin

-Macronucleus commonly in two spherical parts with single micronucleus between the two

-One to several contractile vacuoles in the posterior part

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***Litonotus***

**Genus: *stentor***

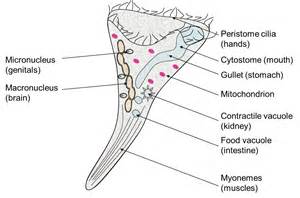
-Rapid contractile body with trumpet shaped

-Pristome wide with adomed central area

-Macronucleus moniliform with 10-20 beads

-Multiple ciliary membranelles spiraling around the regin that leads to the mouth ,it uses these cilia to sweep food particles into its cytostom.

-Usually attach to substrates by posterior thin stalk

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***stentor***

**Genus: *Actinosphaerium***

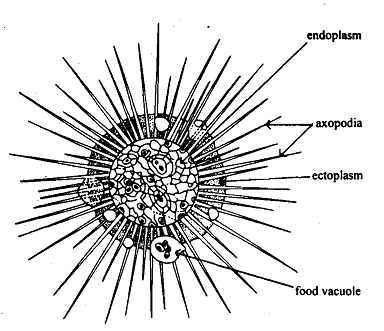
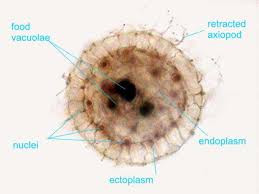
- Spherical body with many pseudopods called axopodia

(to capturing prey and protection from predators)

-Axopodia end in the inner zone of ectoplasm

-Ectoplasm consists large vacuoles in one or several layers for floatting

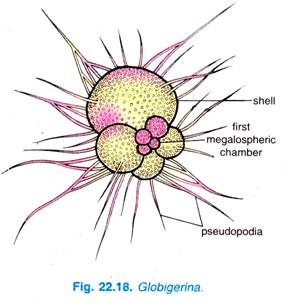
- Endoplasm with numerous small vacuoles and nuclei

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***Actinosphaerium***

**Genus: *Globigerina***

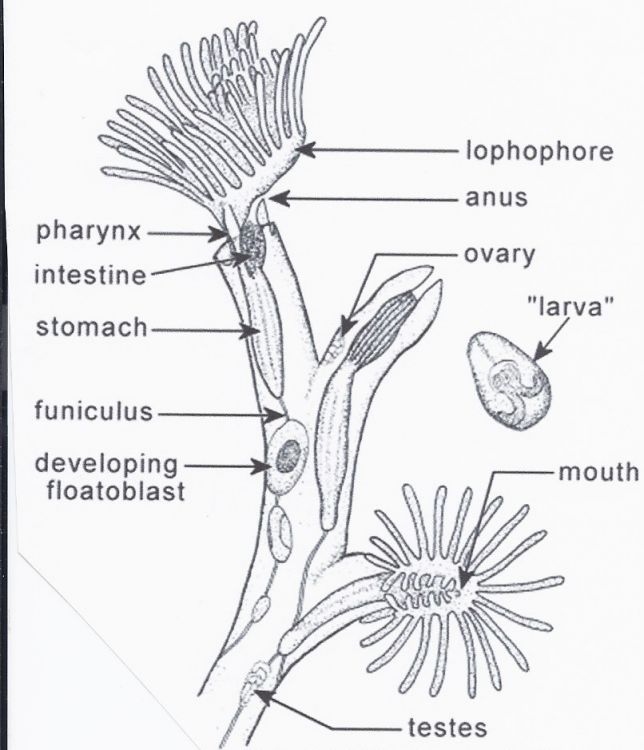
* Globose chambers
* Having rounded shell with pores
* Shell made of calcareous with numerous spiny process

[](http://www.google.iq/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwj-v5ffyJ_SAhXHfRoKHT5cBrAQjRwIBw&url=http://www.biologydiscussion.com/invertebrate-zoology/protozoa/protozoa-present-in-animal-body/28438&psig=AFQjCNFBsJQCSj2nnmj-Wd51lJ6GKmafLw&ust=1487710586823257) [](http://www.google.iq/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwj36LGDyZ_SAhUHCBoKHd29C7AQjRwIBw&url=http://www.firmm.org/en/news/article/items/excursion-of-the-university-of-basel-to-tarifa&psig=AFQjCNFBsJQCSj2nnmj-Wd51lJ6GKmafLw&ust=1487710586823257)

***Globigerina***

**Genus: *Bugula***

* Flexible bushy branching colonies reddish or brown in colour
* The individuals in colony are called zooids (white and globular)
* Zooids consist of soft parts called the polypide enclosed in a rigid box called the zooecium

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***Bugula***