

Practical-2 Classification

Protozoa , Porifera and Coelenterata

1 Euglena

Phylum:-Protozoa

SubPhylum:-Plasmodroma

Class:- Mastigophora

Type:- Euglena

Character

1 Euglena is minute , elongated and spindle –shaped.

2 It is pointed at the posterior end and blunt at the anterior end

3 Body is covered with pellicle and more than one flagella present

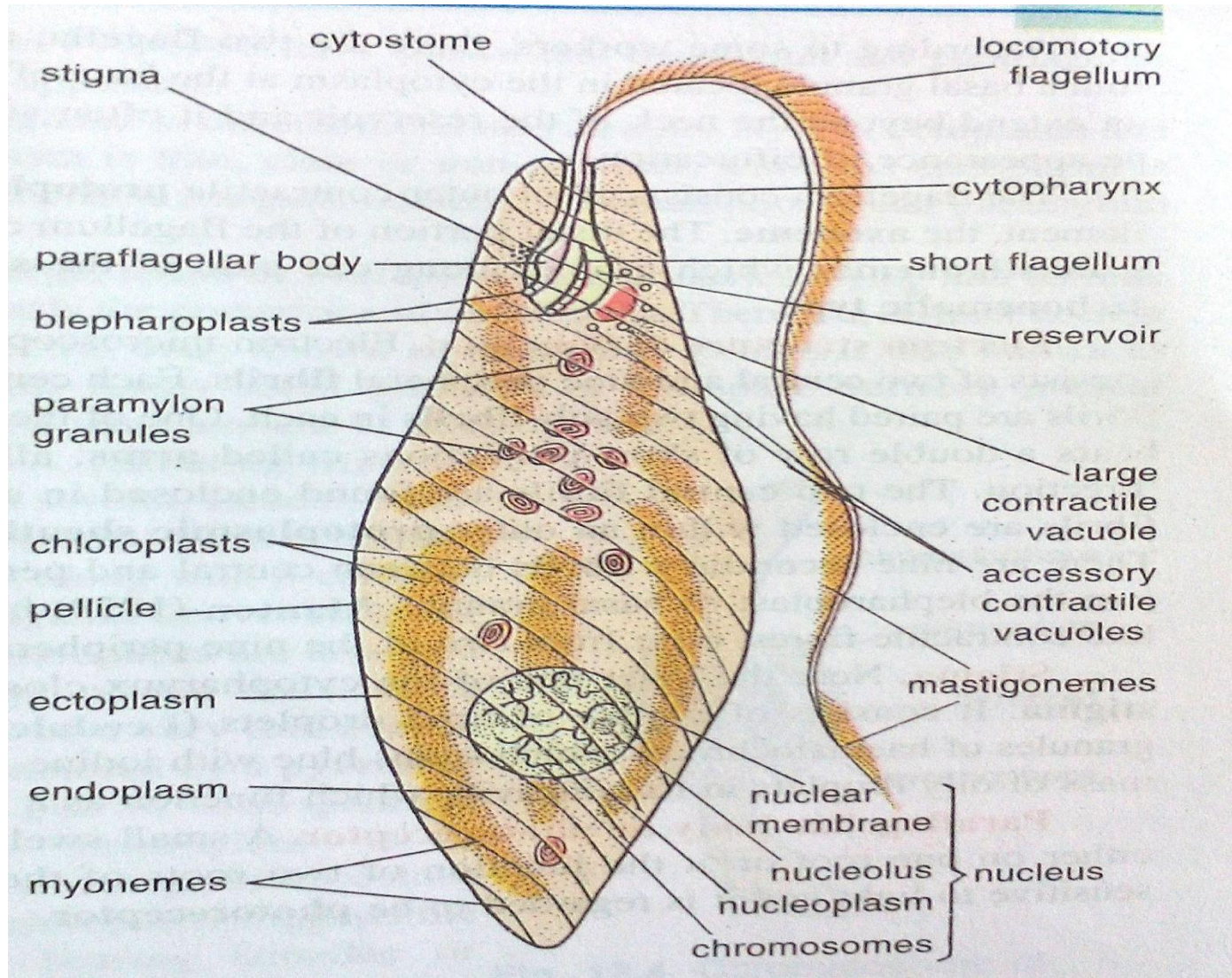
4 Anterior end of the body has Cytopharynx

5 It is a connecting link between animal and plant kingdom

Identification:- As the animal bears Cytopharynx, Flagella and Pyrenoid bodies

And is spindle it can be identified as Euglena.

Euglena



2 Plasmodium

Phylum:- Protozoa

Sub Phylum:- Plasmoderma

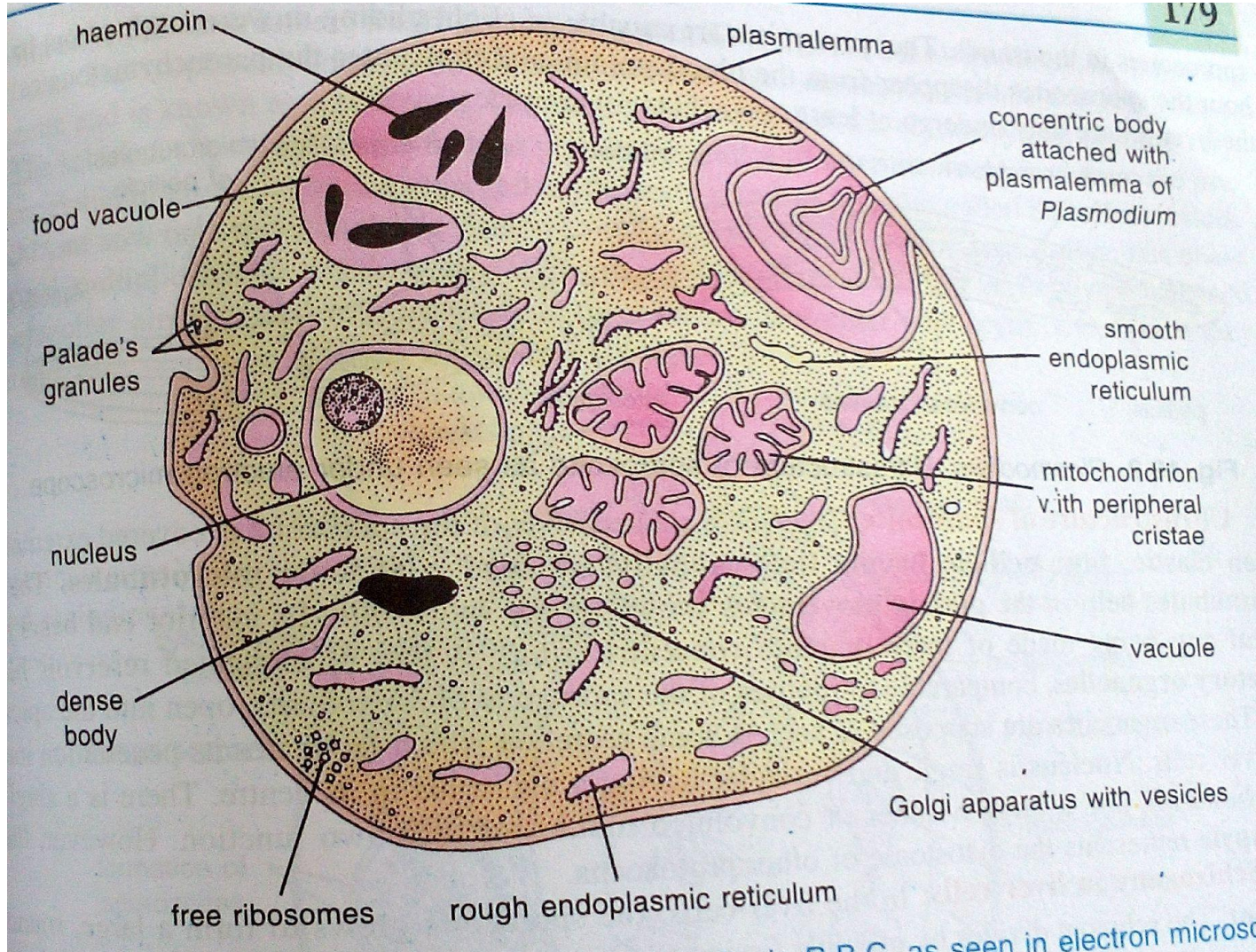
Class:-Sporozoa

Type:-Plasmodium

Character

- 1 Commonly called as Malarial Parasite and causes malaria.
- 2 Exclusively endoparasites
- 3 Life cycle is Digenetic (Involving two hosts-Man and Mosquito)
- 4 Cytoplasm contains dense bodies or particles containing Ribonucleoproteins
- 5 Plasmodium has a double membrane
- 6 Nutrition is saprozoic

Plasmodium



3 Leucosolenia

Phylum:- Porifera

Class:- Calcarea

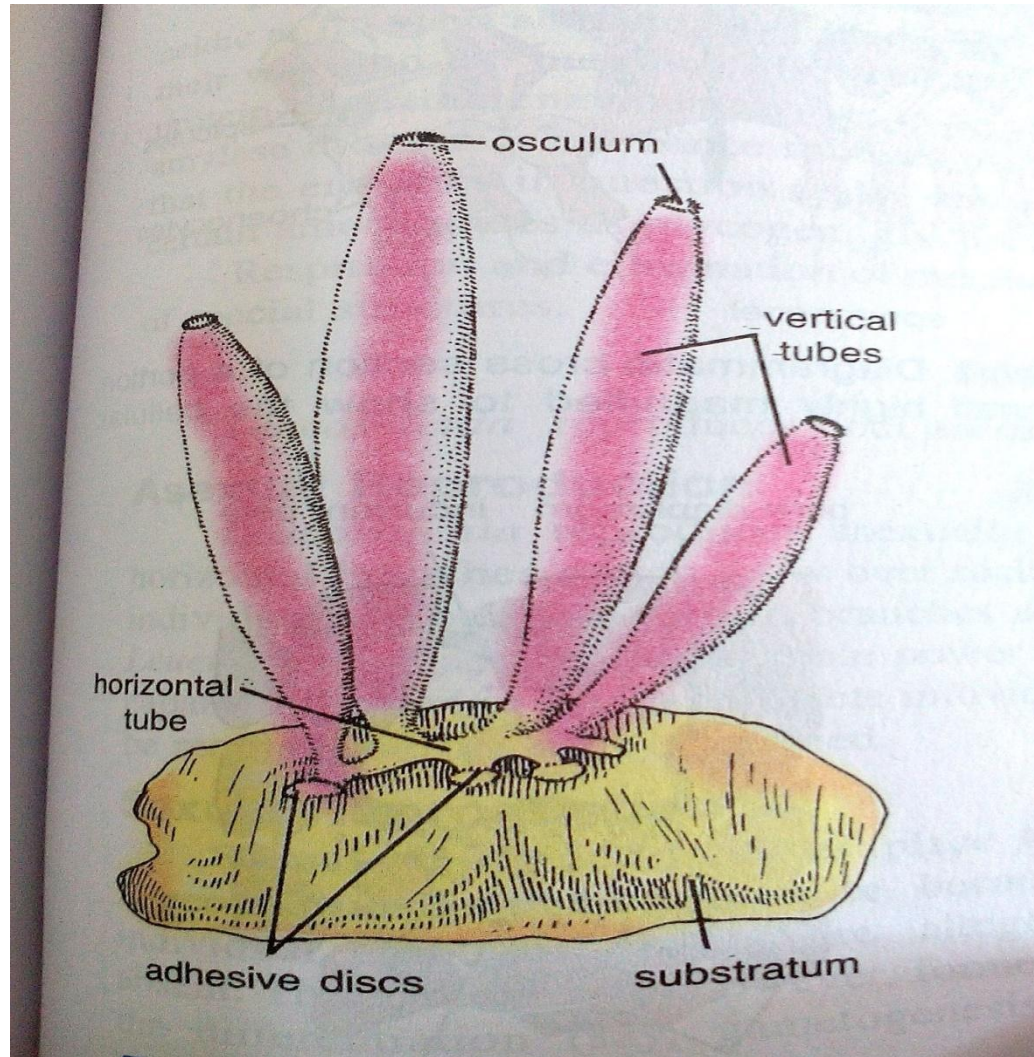
Type:- Leucosolenia

Character

- 1 Vase-shaped sponge measures 20-25mm in length and 5-6mm in diameter
- 2 Calcareous spicules present
- 3 Body opens to the exterior by osculum
- 4 Body wall is thick , through which spicules project
- 5 Body is covered by pore –bearing membrane

Identification:- As the animal is vase-shaped white pipe bearing osculum,it is Identified as Lecosolenia.

Leucosolenis



4 Hylonema

Phylum:- Porifera

Class:- Hexactinellida

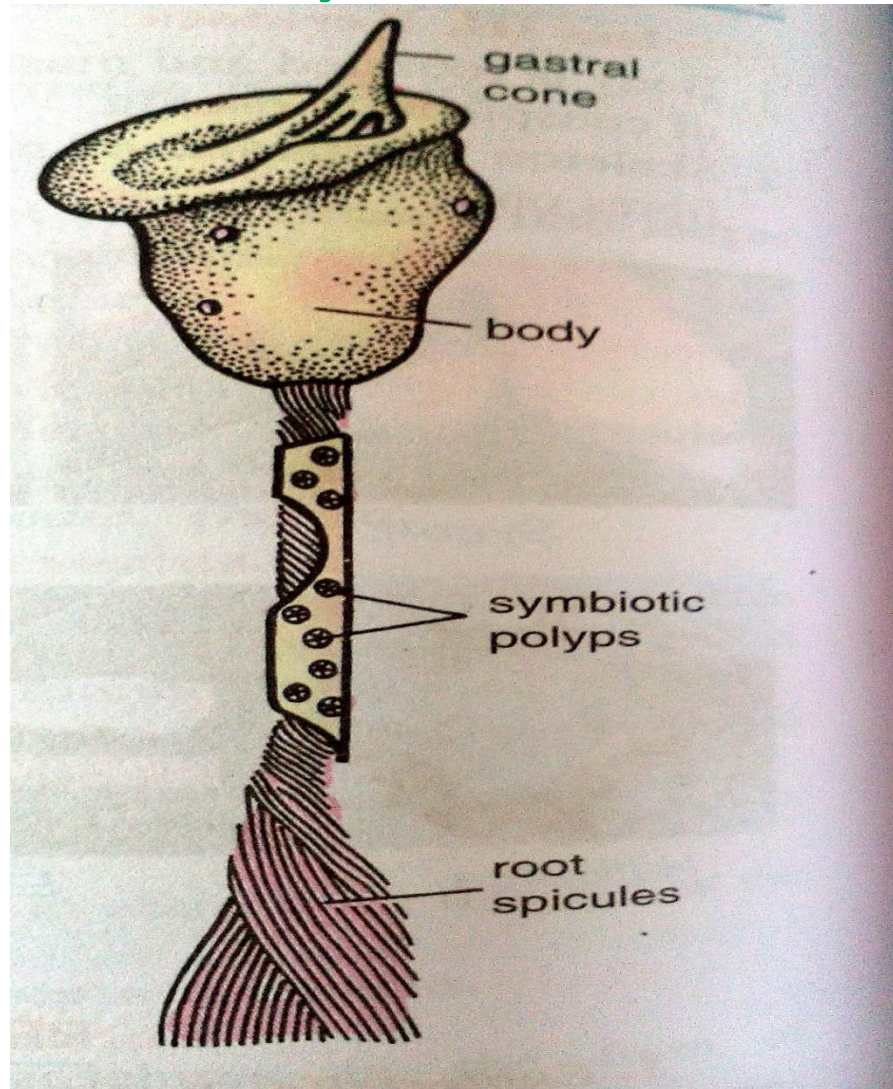
Type:- Hylonema

Character

- 1 Commonly called as Glass Rope Sponge.
- 2 Glass sponge has siliceous spicules of (Six-ray pointed type)
- 3 Body is vase-shaped measuring 10-30 cm in height
- 4 Spicules are fused to form a lattice-like skeleton giving the sponge a glass-like appearance
- 5 Body is elevated from the substratum by stalk-like root-tuft , which is twisted.
- 6 Root tuft projects above as gastral cone.

Identification:- Since the specimen has gastral cone , Root tuft and Root spicules, it is Hylonema

Hylonema



5 Euspongia

Phylum:- Porifera

Class:- Demospongia

Type:- Euspongia

Character

1 Commonly called as Bath Sponge.

2 Spongin fibers or siliceous spicules present.

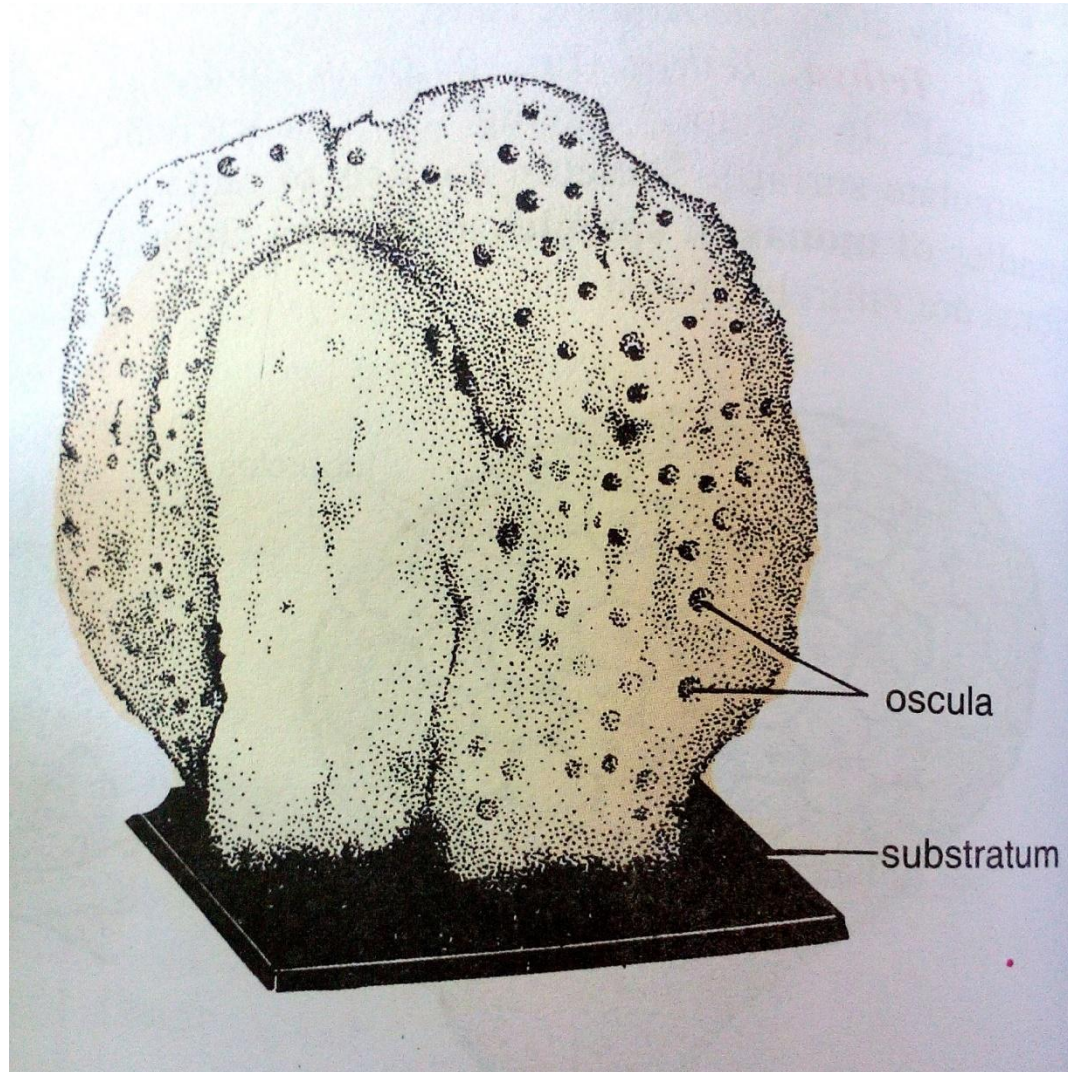
3 Surface of the body contains large openings called as oscula.

4 Bath sponge is used for household use.

5 It is large globular cup-shaped complex and shows infoldings of body wall.

Identification:- Since the animal has globose body and oscula, it is known as Euspongia

Euspongia (BathSponge)



6 Physalia

Phylum:- Coelenterata

Class:- Hydrozoa

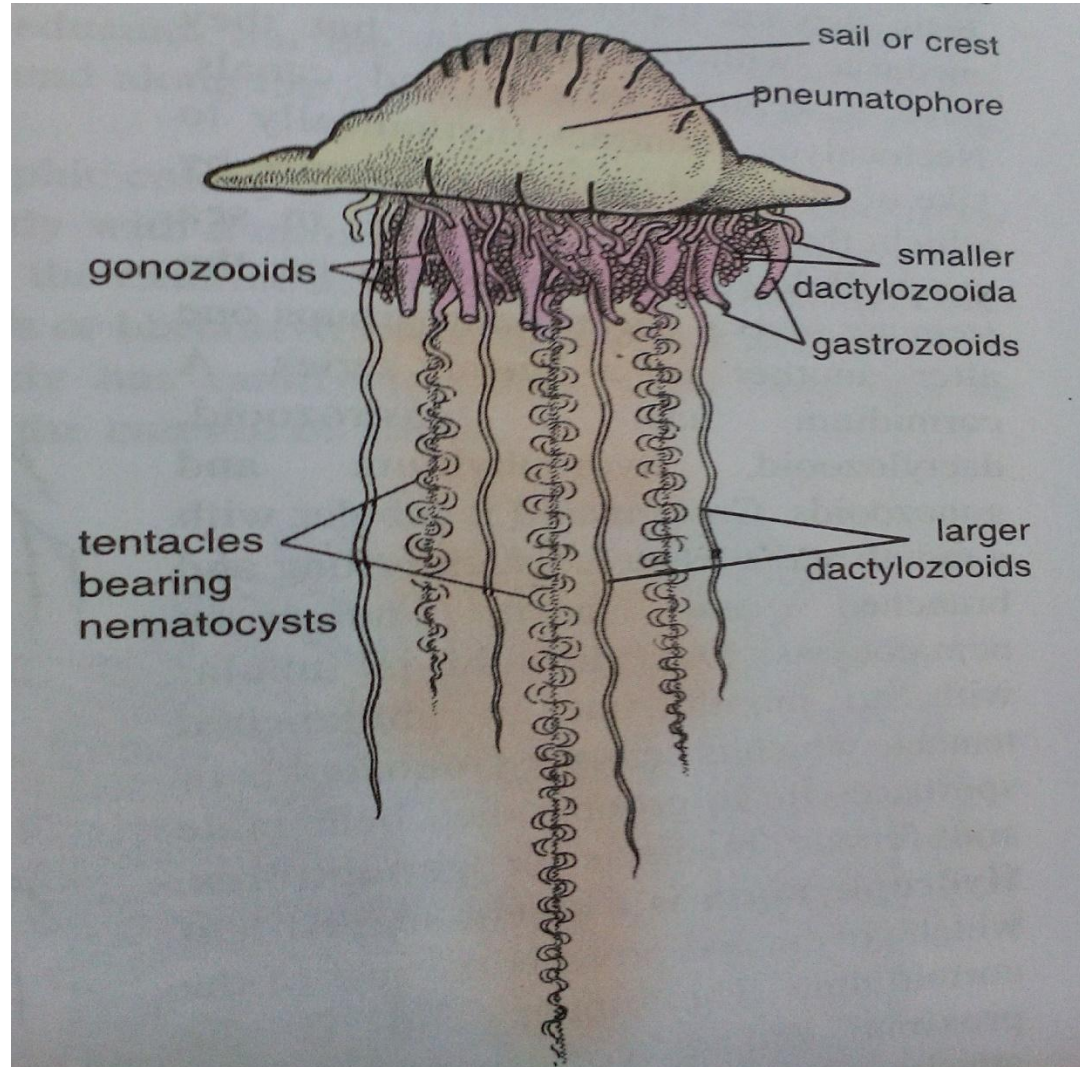
Type:- Physalia

Character

- 1 Commonly called as “Portuguese Man of War”
- 2 Polyp and Medusa present
- 3 It has pneumatophore or float which contains gas glands , responsible for secreting air (Nitrogen 85-90%,Oxygen13.5%,Argon1.5%).
- 4 Gas fills the body and helps the animal to float and is forced out of pneumatophore , when the animal sinks
- 5 Animal is about 10 to 30 cm long and has tentacles.

Identification:- The specimen has pneumatophore so it is Physalia

Physalia



7 Aurelia

Phylum:- Coeleterata

Class:- Scyphozoa

Type:- Aurelia

Character

1 Commonly called as jelly fish

2 Medusa is saucer-shaped having tetramerous radial symmetry.

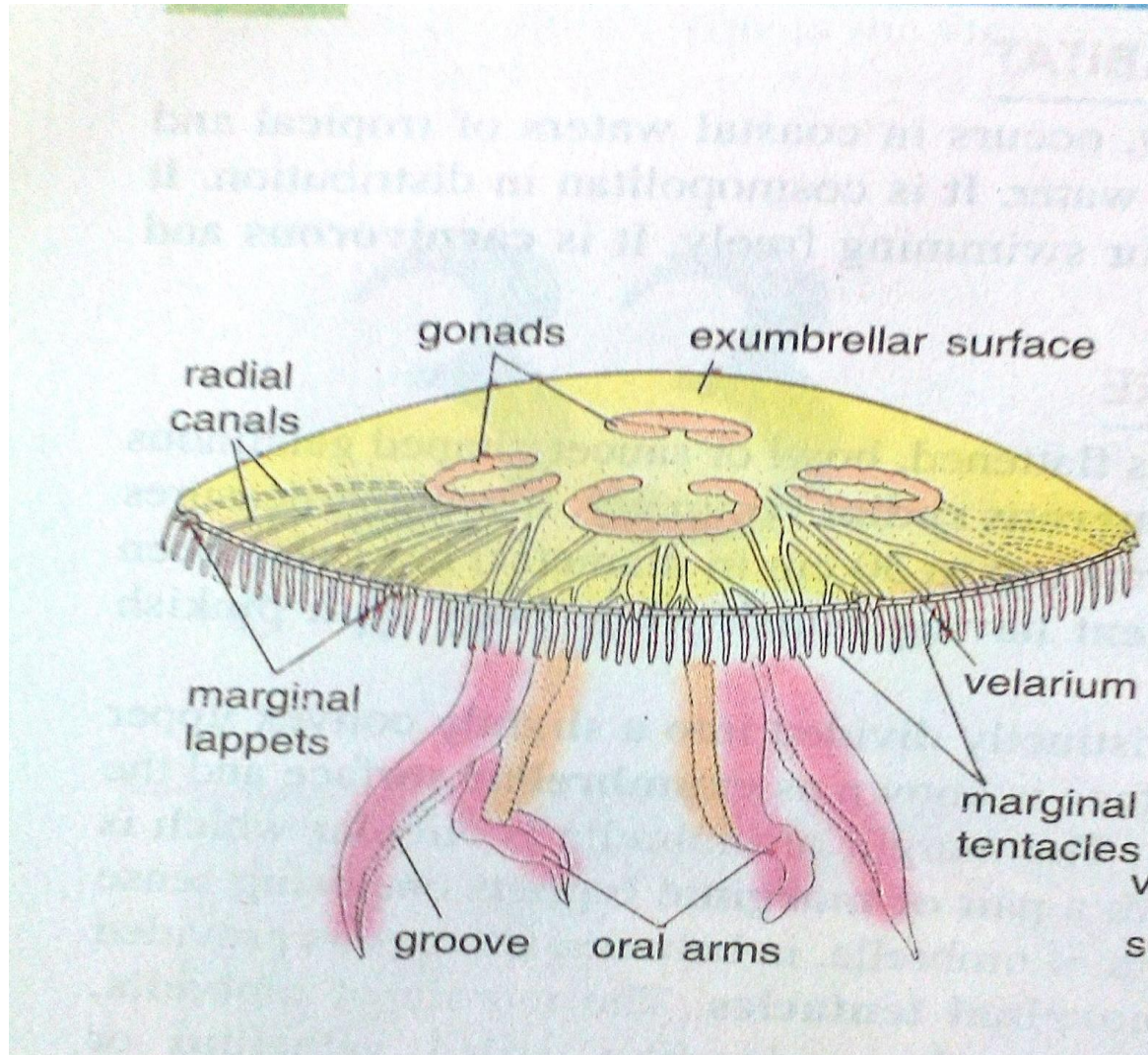
3 Body consists of ex-umbrella and sub-umbrella surfaces.

4 Manubrium hangs down from the center and is surrounded by four radial arms.

5 Sub-umbrella region has marginal tentacles having stinging cells and Marginal lappets having organs.

Identification:- Since the animal has distinct , jelly-like body, small tentacles And ex – and sub-umbrella surface , it is Aurelia.

Aurelia



8 Sea Anemone (Metridium)

Phylum:- Coeleterata

Class:- Anthozoa

Type:- Metridium

Character

1 Commonly called as sea anemone.

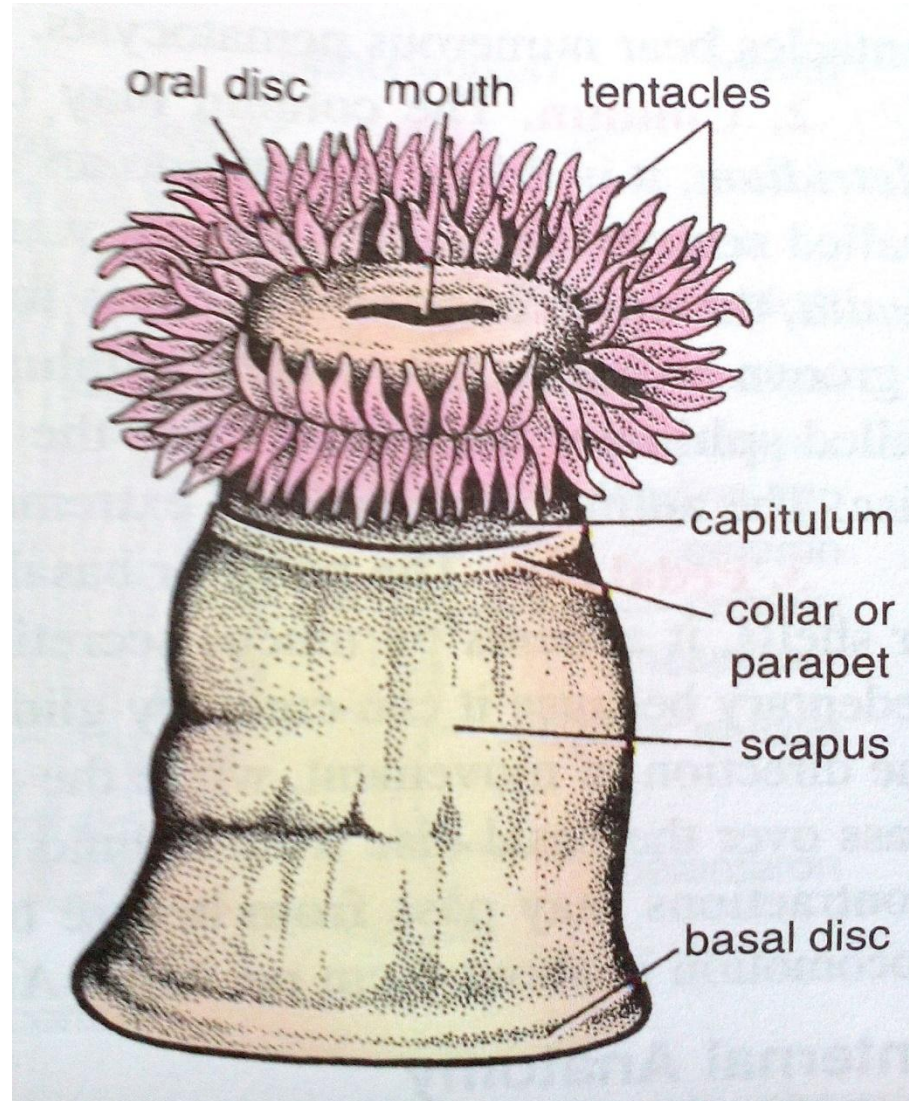
2 Body is short , cylindrical and radially symmetrical and divisible in to
3 regions: pedal disc , column and oral disc

3 pedal disc is muscular ,by which it is attached to the substratum.

4 Oral disc is surrounded by tentacles and opens in to gastro – vascular
Cavity.

Identification:- The animal is large & brightly coloured flower – like form
hence it is identified as Metridium

Sea Anemone



9 Fungia

Phylum:- Coeleterata

Class:- Anthozoa

Type:- Fungia

Character

1 Commonly Known as Mushroom Coral.

2 Polyp is Present

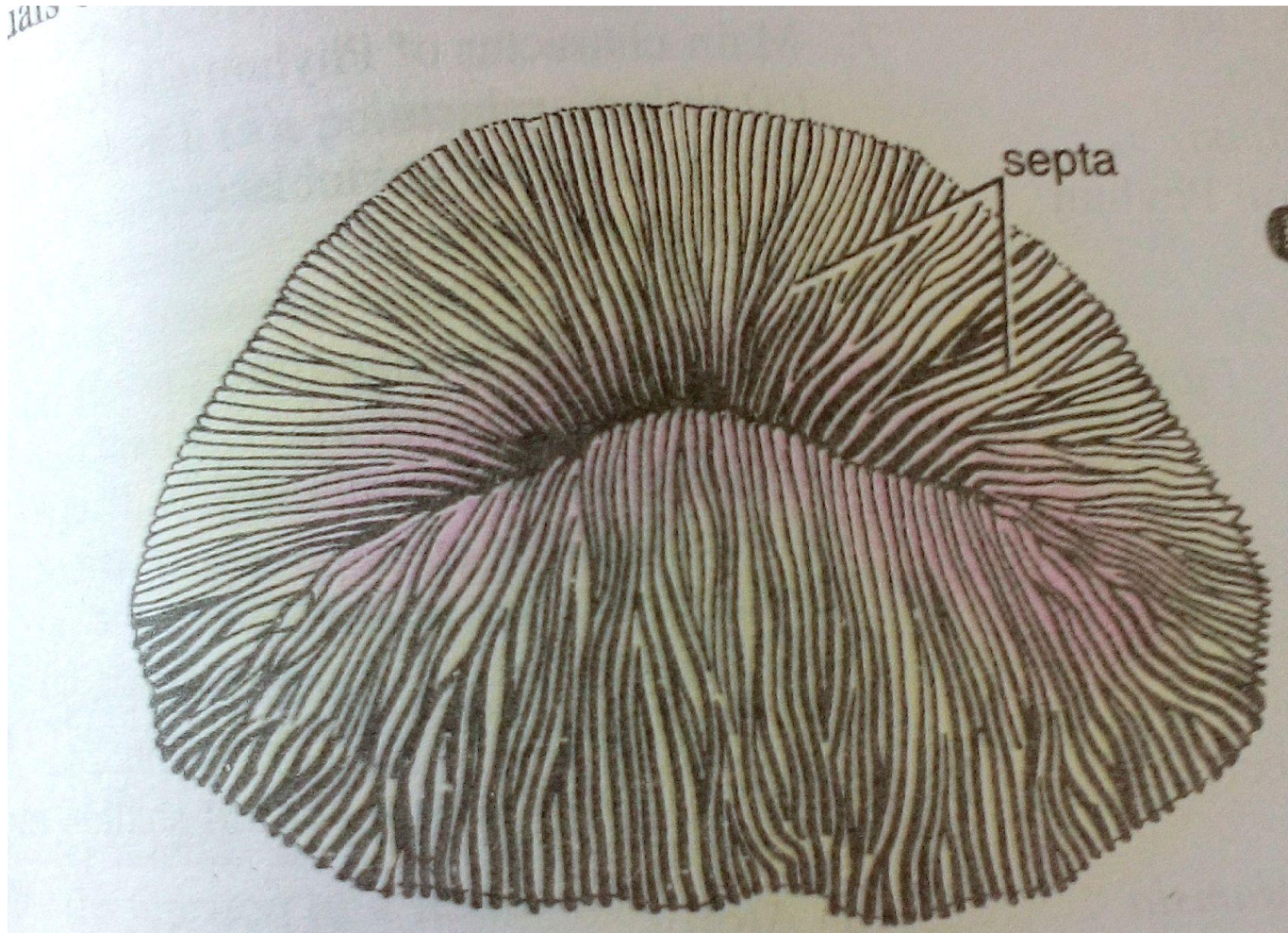
3 It Measures 5cm to 25cm in Diameter.

4 Coral contains numerous septa connected by a calcareous rod , Known as synapticula

5 It Usually lies loose on bottom of the sea or fastened below by a stalk

Identification:- As the animal is mushroom – shaped and with septa , it is identified as Fungia.

Fungia



10 Favia

Phylum:- Coeleterata

Class:- Anthozoa

Type:- Favia

Character

- 1 Body is composed of thick and stony skeleton formed by calcareous calcium carbonate skeleton.
- 2 Body surface with closely set polygonal cups or theca, set together possessing common wall
- 3 Body imperforated or pore less.
- 4 Favia is reef building stony coral.

Identification:- As the animal has polygonal cups or theca , it is Identified as Favia

Favia

