

Topic: Morphology and Life history of Obelia
Class: B.Sc Part –I (Hons.)
Paper- I
Group – A

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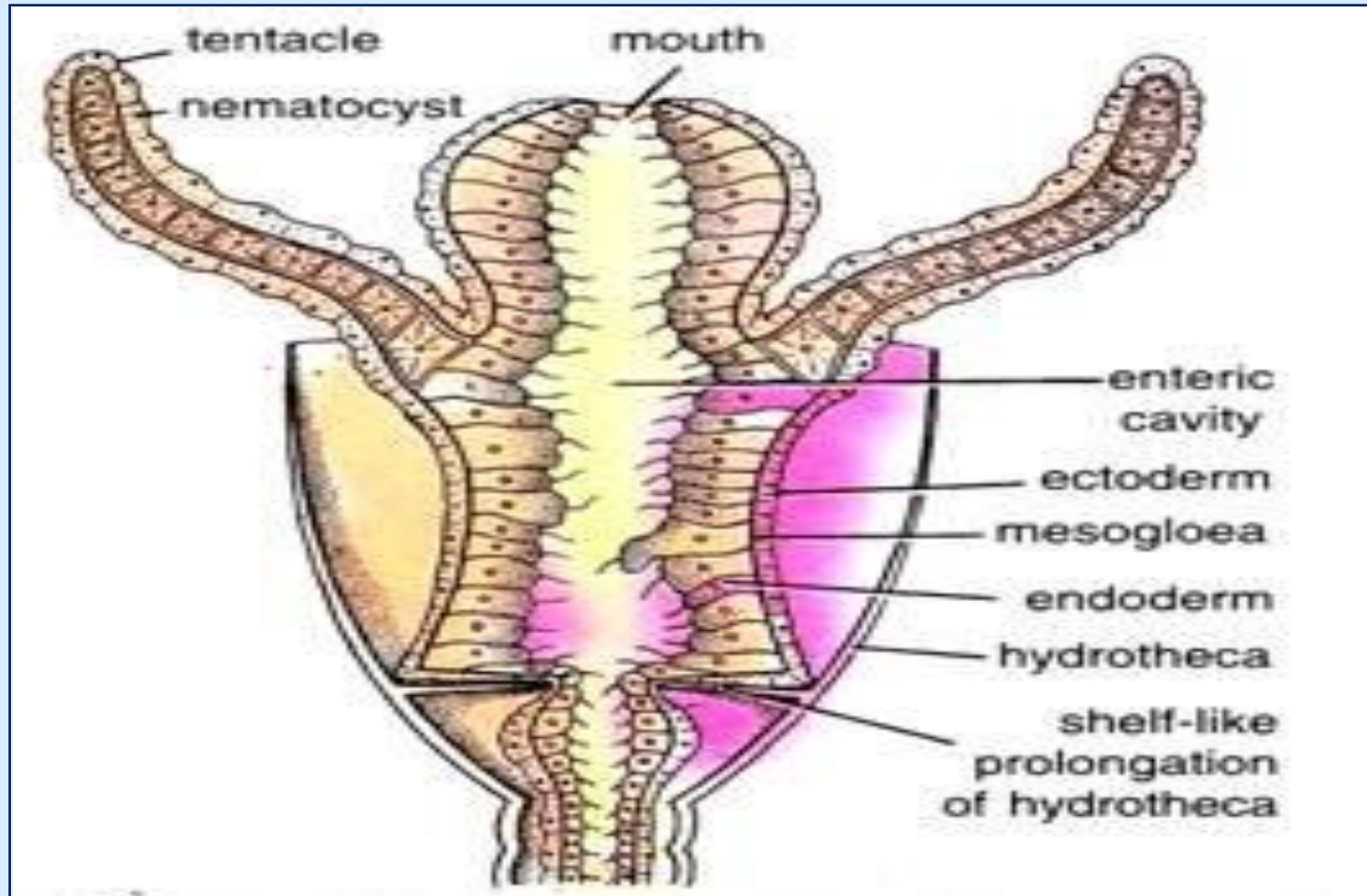
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Histology of Polyp or Hydranth:

- The polyps have an outer layer of ectoderm and an inner layer of endoderm,
- Between them is a thin, transparent mesogloea;
- All these layers constitute the coenosarc which is soft and tubular,
- The continuous cavity is the enteron or gastro vascular cavity.

- The enteron has a fluid and its lining is flagellated.
- Rhythmical contractions of the hydranths cause a current which distributes food obtained by some polyps to those parts of the colony where feeding is not taking place.
- The tentacles of polyps are solid with no enteron.
- They have a single- layered core of vacuolated endoderm cells with thick walls inside a layer of ectoderm.

Obelia: v.s. of a polyp or hydranth



Ectoderm:

- It consists of long, conical columnar epitheliomuscular cells,
- Their inner ends are produced into muscular processes which run longitudinally.
- In the ectoderm layer are very few interstitial cells, some branching nerve cells and cnidoblasts with nematocysts.
- The nematocysts are abundant on the tentacles and manubrium only.

- The cnidoblasts are found in the basal part of the hydranth and in the coenosarc.
- They form nematocyst and migrate actively to reach their final positions.
- Obelia has only one kind of nematocysts called basitrichous isorhizas in which the capsule is oval, but is absent,
- The thread is open at the tip and has spines on its base.