

PART - 1

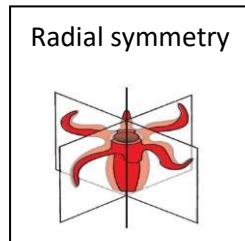
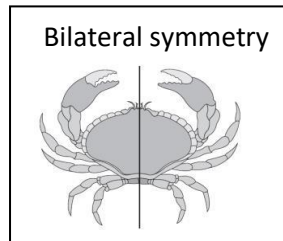
Symmetry :- Three types :- **Asymmetry**, **Radial symmetry** and **Bilateral symmetry**

(a).**Asymmetry**:- Body cannot be divided into two equal halves. Eg: **Porifera (Sponges)**

(b).**Radial symmetry** :- Body can be divided into two identical halves through many plane passing through the central axis, it is called radial symmetry.

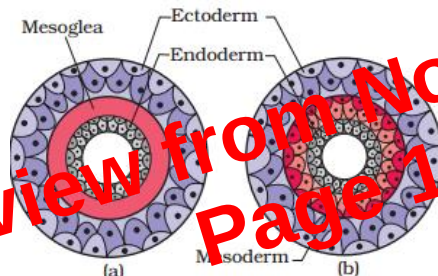
Eg: **Coelenterates, Ctenophores, Echinoderms**

(c).**Bilateral symmetry**:- The body can be divided into identical left and right halves through only one plane passing through the central axis. Eg:- **Annelids, Arthropods, Vertebrates**



Diploblastic body :- Embryonic body wall is made up of two germ layers. Outer **ectoderm** and inner **Endoderm**. An undifferentiated layer, **mesoglea**, is present in between the ectoderm and the endoderm. Mesoderm is absent. Eg:- coelenterate.

Triploblastic body :- Embryonic body wall is made up of three germ layers. Outer **ectoderm**, middle **mesoderm** and inner **endoderm**. Eg:- Platyhelminthes to Chordata.



(a).Diploblastic (b).Triploblastic

Coelom:- It is the body cavity between body wall and gut wall.. It is lined by mesoderm. On the basis of coelom, animals are classified into three. 1.Coelomates, 2.Pseudocoelomate, 3.Acoelomate

(a).**Coelomate**:- Animals which possess a true coelom (eucoelom) are **coelomate animals**.

[body cavity is formed in the mesoderm and also lined by mesodermal cells is called **eucoelom** or **true body cavity**]. Eg .**Annelids, Molluscs, Arthropods, Echinoderms, Hemichordates and Chordates**.

(b).**Pseudocoelomate** :- In some animals the body cavity is not formed in the mesoderm and not lined by mesoderm, instead, the mesoderm is present as scattered pouches in between the ectoderm and endoderm. Such a body cavity is called **pseudocoelom** and the animal possessing them are called **pseudocoelomate**.

Eg. **Aschelminthes**

(c).**Acoelomate** :- The animals in which the body cavity is absent are called **acoelomate** animals.Eg:- **Platyhelminthes**

