

## B.Sc Second year Zoology (Subsidiary)

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### TYPES OF EGGS

Different species of animal has different type of eggs. They are classified on the following basis -

#### 1. ON THE BASIS OF AMOUNT OF YOLK

On the basis of amount of yolk eggs are 4 types -

**(i) Alecithal** - The yolk is almost absent. eg. Eutherian eggs

**(ii) Microlecithal** - They have very little amount of yolk. Romer and Balenski proposed the term oligolecithal. eg. Amphioxys and Tunicates.

**(iii) Mesolecithal** - They have moderate amount of yolk. eg. Amphibian, Dipnoi Fishes, Petramizon and Annelids worm.

**(iv) Megalecithal / Macrolecithal / Polylecithal** - They have large amount of yolk. eg. Insect, reptiles, mixine, cartilage fishes and prototherian mammals.

#### 2. ON THE BASIS OF DISTRIBUTION OF YOLK

On the basis of distribution of yolk eggs are 3 types &

**(i) Isolecithal / Homolecithal** - There is even distrubtion of the yolk in the ooplasm. eg. Alecithal and microlecithal yolk.

**(ii) Telolecithal** - The yolk is found in the one pole which called as vegital pole. The yolk free pole is called as an animal pole. eg fishes, emphibians, reptiles and birds. Yolk unequally distributed in the ooplasm.

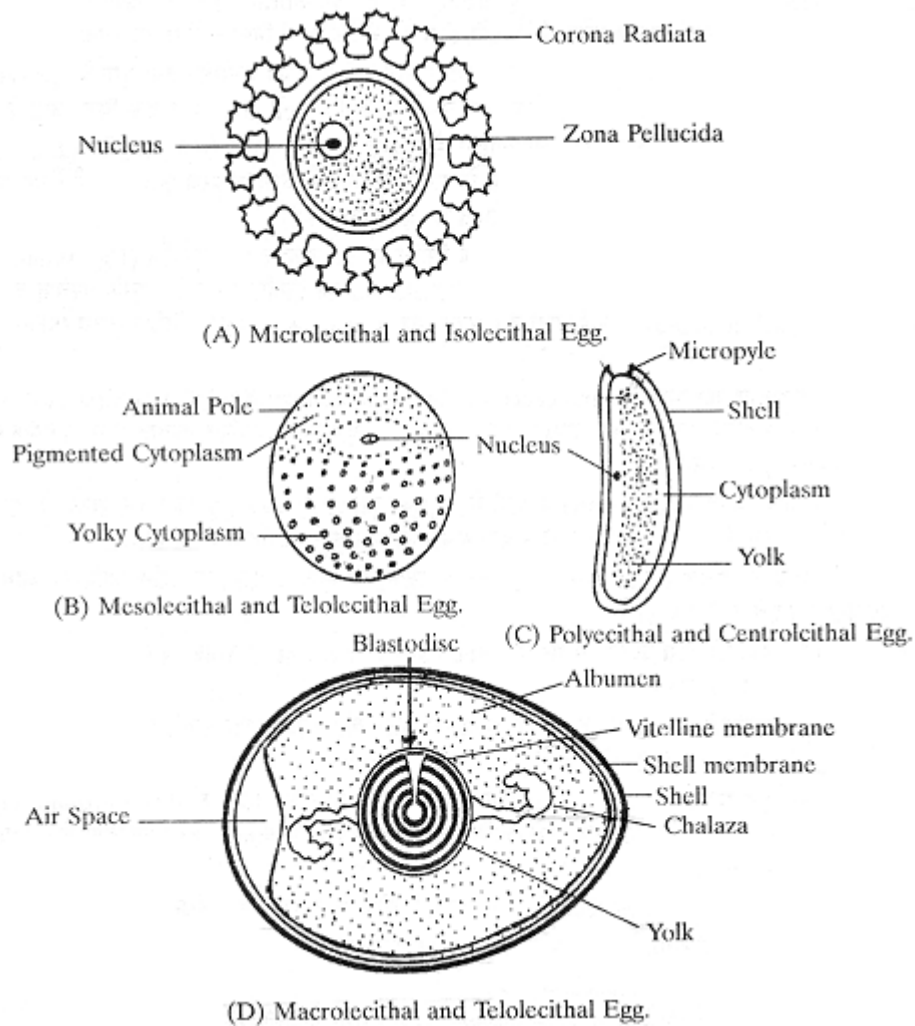
**(iii) Centrolecithal** - The yolk is present in the center and surrounded by ooplasm. eg. Insect and hydrozoa.

#### 3. PRESENCE OR ABSENCE OF HARD SHELL

On the basis of presence or absence of shell the eggs are of 2 types -

**(i) Cleidoic eggs** - Such eggs are covered by hard shell for protection which is permeable for gases. Yolk present in sufficient quantity. eg. Reptiles and birds.

**(ii) Non cleidoc egg** - They are without shell and these develop in aquatic medium and uterus of female. eg. amphioxys, mammals, frog and hardmania.



#### 4. ON THE BASIS OF DEVELOPMENT

On the basis of development eggs are of 2 types -

##### (i) Determinate or Mosaic Eggs

In these types of eggs before fertilization determined the different parts of embryo called the mosaic eggs.

If any part remove the eggs the related organs does not originate in the embryo.

After first cleavage both blastomere are separate than develop the half embryo. eg. Polyclade, Nimertine, Annelidsm, Molluscs and Ascidian.

##### (ii) Indeterminate or Regulative Eggs

Different parts determined after third cleavage, these eggs are called regulative eggs.

If two blastomeres are separate after first cleavage both blastomeres developed the complete embryo.

