

## **Sexual reproduction in Flowering Plant**

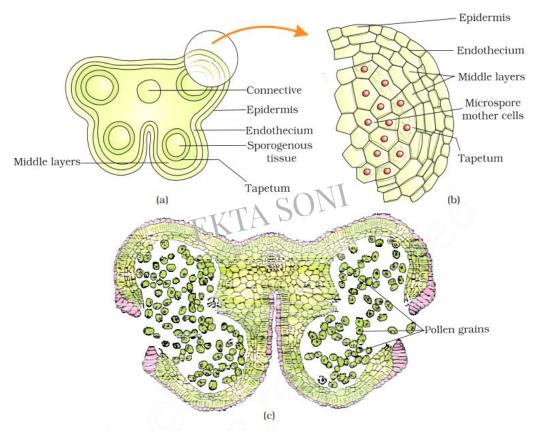
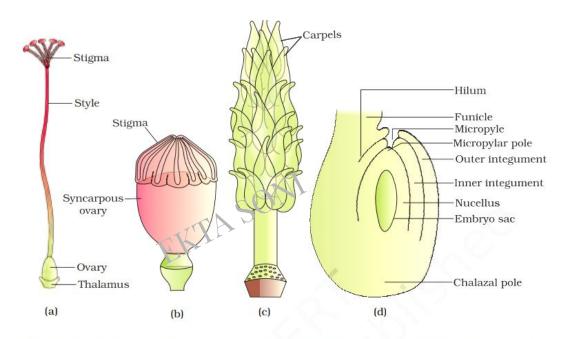


Figure 2.3 (a) Transverse section of a young anther; (b) Enlarged view of one microsporangium showing wall layers; (c) A mature dehisced anther

## **Sexual Reproduction in Flowering Plant**



**Figure 2.7** (a) A dissected flower of *Hibiscus* showing pistil (other floral parts have been removed); (b) Multicarpellary, syncarpous pistil of *Papaver*; (c) A multicarpellary, apocarpous gynoecium of *Michelia*; (d) A diagrammatic view of a typical anatropous ovule

## **Sexual Reproduction in Flowering Plant**

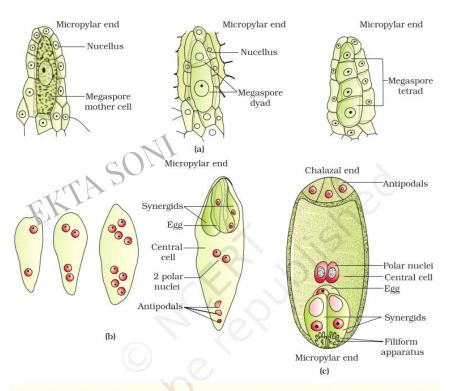


Figure 2.8 (a) Parts of the ovule showing a large megaspore mother cell, a dyad and a tetrad of megaspores; (b) 2, 4, and 8-nucleate stages of embryo sac and a mature embryo sac; (c) A diagrammatic representation of the mature embryo sac.

**Sexual Reproduction in Flowering Plant** 

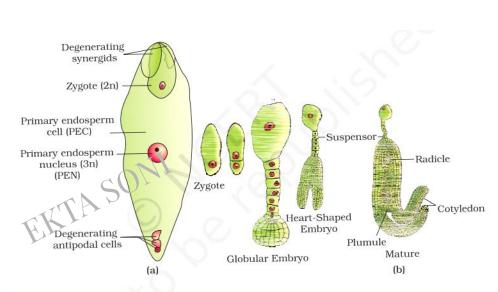


Figure 2.13 (a) Fertilised embryo sac showing zygote and Primary Endosperm Nucleus (PEN); (b) Stages in embryo development in a dicot [shown in reduced size as compared to (a)]

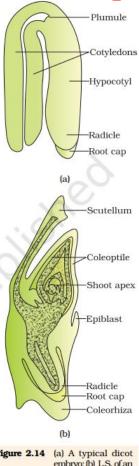


Figure 2.14 (a) A typical dicot embryo; (b) L.S. of an embryo of grass

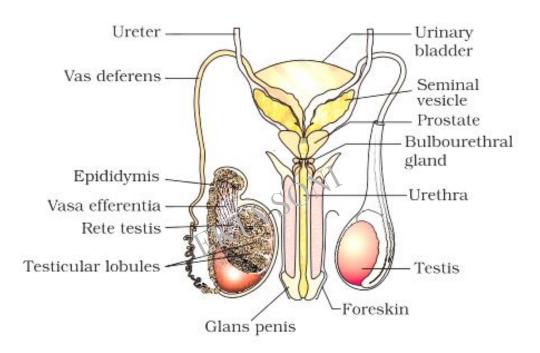


Figure 2.1(b) Diagrammatic view of male reproductive system (part of testis is open to show inner details)

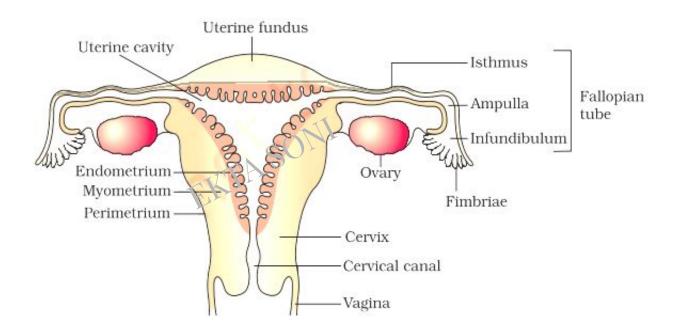


Figure 2.3 (b) Diagrammatic sectional view of the female reproductive system

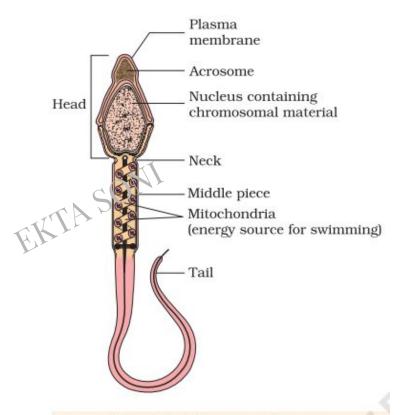


Figure 2.6 Structure of a sperm

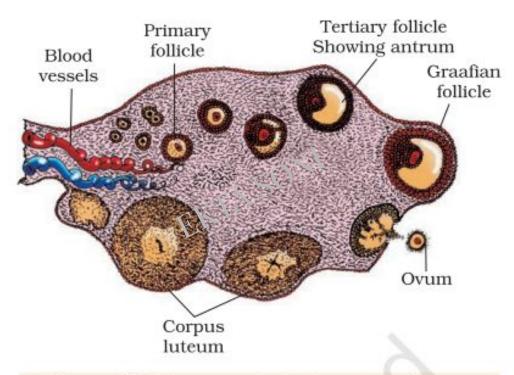


Figure 2.7 Diagrammatic Section view of ovary

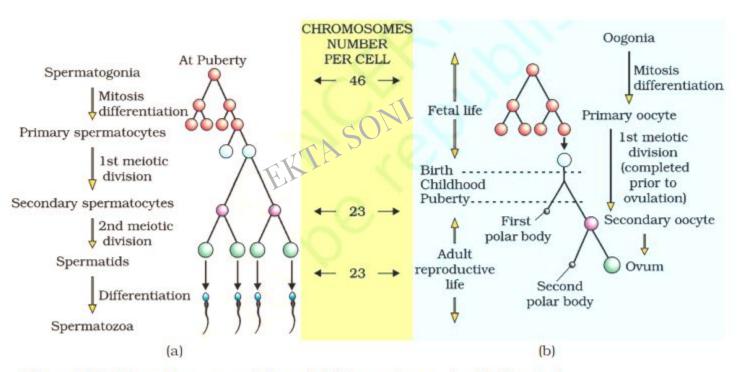


Figure 2.8 Schematic representation of (a) Spermatogenesis; (b) Oogenesis

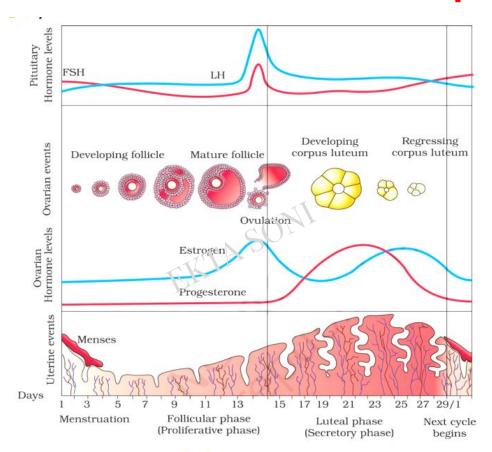
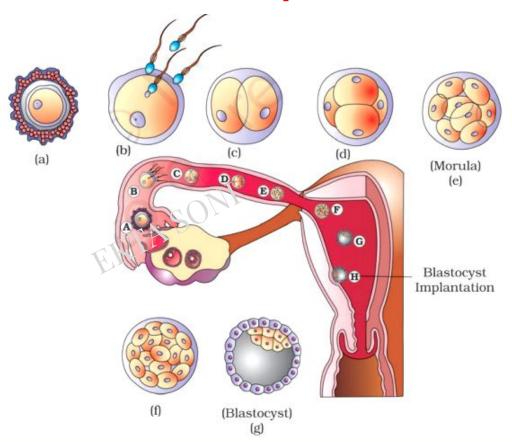
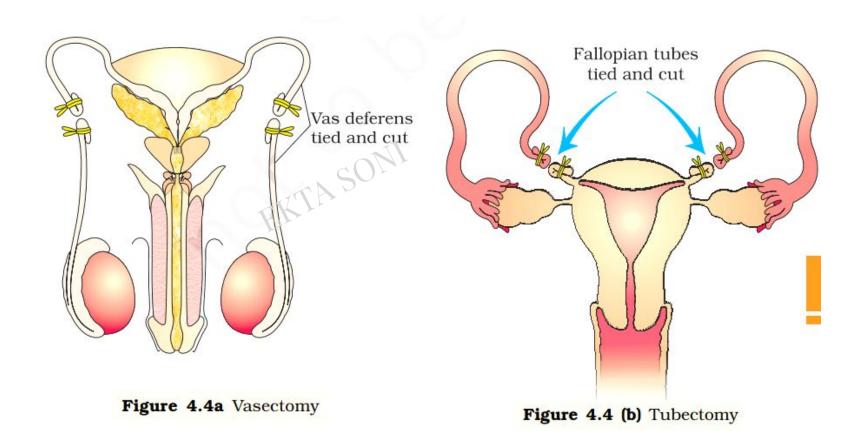


Figure 2.9 Diagrammatic presentation of various events during a menstrual cycle



2.11 Transport of ovum, fertilisation and passage of growing embryo through fallopian tube

## Reproductive Health



## Principle of Inheritance and Variation

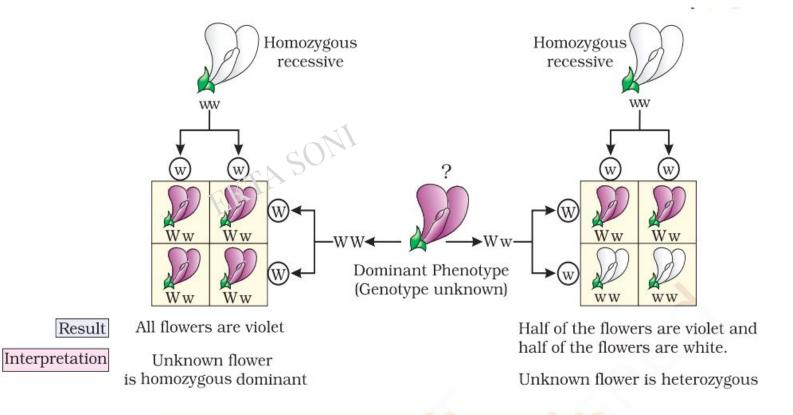


Figure 5.5 Diagrammatic representation of a test cross

## Principle of Inheritance and Variation

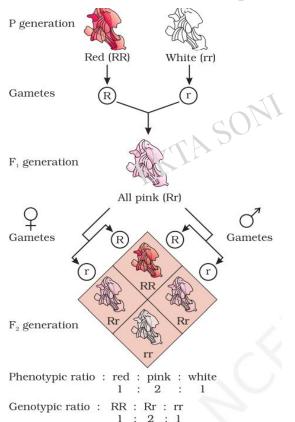


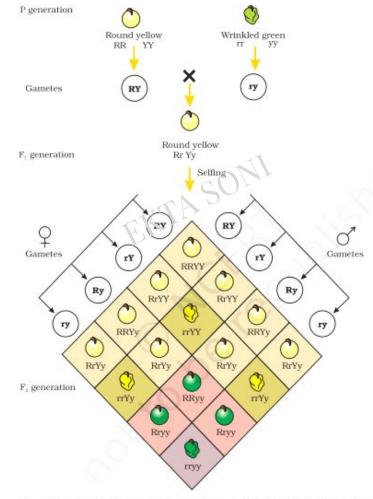
Table 5.2: Table Showing the Genetic Basis of Blood Groups in Human Population

Allele from Parent 1	Allele from Parent 2	Genotype of offspring	Blood types of offspring
I A	I A	IAIA	A
$I^A$	$I^B$	$I^AI^B$	AB
I A	i	I <sup>A</sup> i	A
$I^B$	I <sup>A</sup>	$I^AI^B$	AB
$I^B$	$I^B$	$I^BI^B$	В
$I^B$	i	IB i	В
i	i	i i	0

#### **Incomplete Dominance**

## Principle of Inheritance and Variation

**Dihybrid cross** 



Phenotypic ratio: round yellow: round green: wrinkled yellow: wrinkled green

3

1

### Molecular Basis of Inheritance

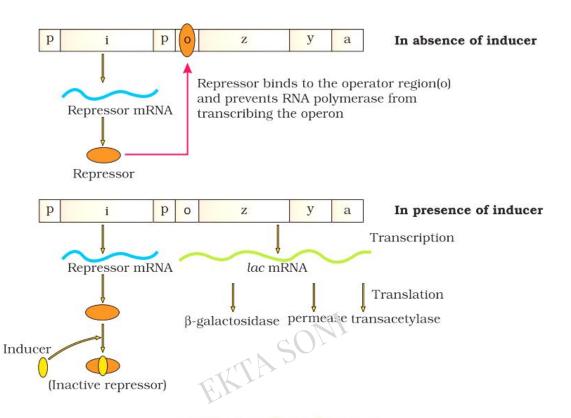


Figure 5.14 The lac Operon

#### **Molecular Basis of Inheritance**

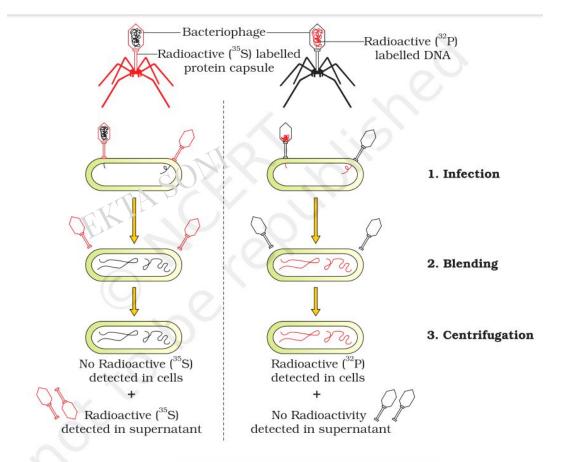


Figure 5.5 The Hershey-Chase experiment

### **Molecular Basis of Inheritance**

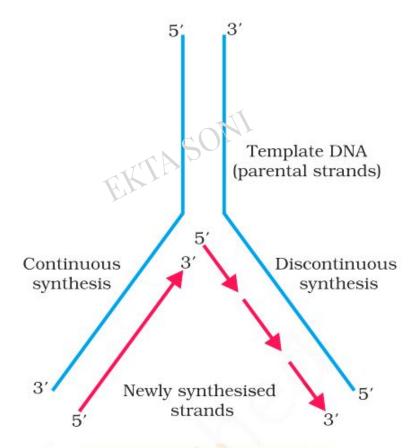
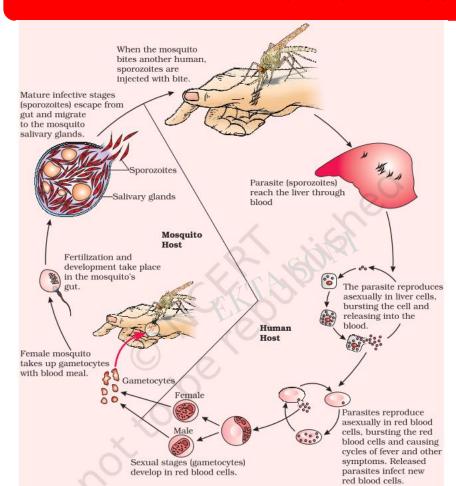


Figure 5.8 Replicating Fork

### **Human Health & Disease**



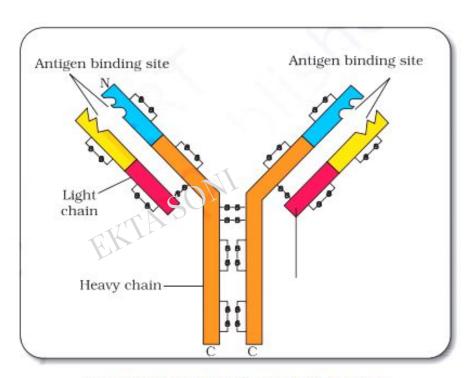


Figure 8.4 Structure of an antibody molecule

## **Biotechnology - Principle and Process**

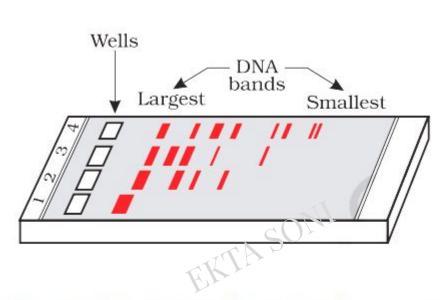


Figure 11.3 A typical agarose gel electrophoresis showing migration of undigested (lane 1) and digested set of DNA fragments (lane 2 to 4)

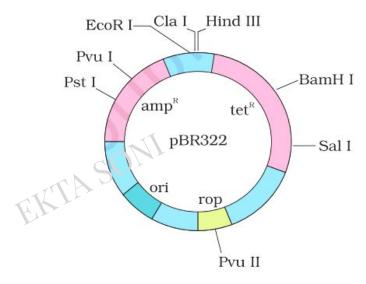


Figure 11.4 E. coli cloning vector pBR322 showing restriction sites (Hind III, EcoR I, BamH I, Sal I, Pvu II, Pst I, Cla I), ori and antibiotic resistance genes (amp<sup>R</sup> and tet<sup>R</sup>). rop codes for the proteins involved in the replication of the plasmid.

## **Biotechnology and Its Application**

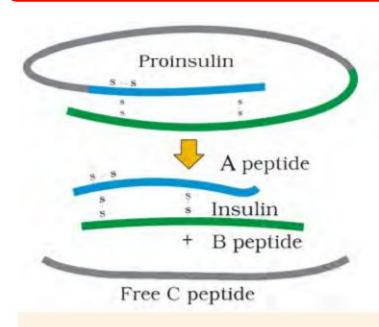


Figure 12.3 Maturation of pro-insulin into insulin (simplified)

## **Organism and Population**

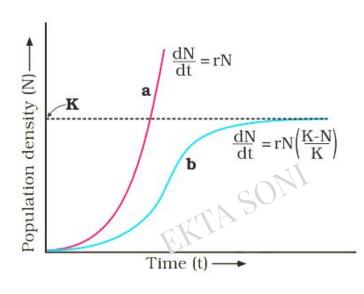


Figure 13.5 Population growth curve
a when responses are not limiting the growth, plot is exponential,
b when responses are limiting the growth, plot is logistic,

K is carrying capacity

Table 13.1: Population Interactions

Species A	Species B	Name of Interaction	
+	+	Mutualism	
· -	-	Competition	
+	-	Predation	
+	and the same of th	Parasitism	
+	0	Commensalism	
-	0	Amensalism	

## **Ecosystem**

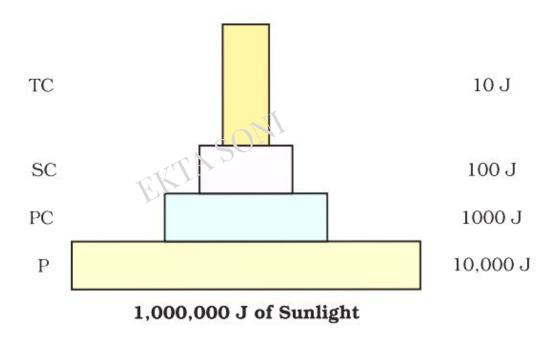
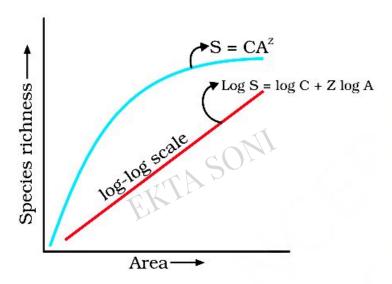


Figure 14.4 (d) An ideal pyramid of energy. Observe that primary producers convert only 1% of the energy in the sunlight available to them into NPP

## **Biodiversity and Conservation**



**Figure 15.2** Showing species area relationship. Note that on log scale the relationship becomes linear

# Tips For Diagrams

- Take a Rough Paper and Try to Make These diagrams Again and Again.
- All Namings Should be Crystal Clear.
- In Board Exam You Should Make Diagram From Pencil to Keep it Neat and Clean.
- Please Note That Diagram Should be Neat and Clean with all the Namings
- It is not Compulsory to make it Beautiful but It's really Important to make it Neat and clean so that it can be Readable easily by examiner

