# CHAPTER-WISE LIST of MOST IMPORTANT & HIGHLY EXPECTED QUESTIONS for Class 12 Biology (Maharashtra Board).

Biology IMP



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Aurangabad

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## 🟢 CHAPTER 1: Reproduction in Lower & Higher Plants

1. Explain **vegetative reproduction** with any two examples.
2. Describe the **structure of anther** with a neat labelled diagram.
3. Explain **microsporogenesis**.
4. What is the **two-celled stage of pollen grain**? Explain with diagram.
5. Define **double fertilization** and write its significance.
6. Explain the **development of embryo sac (Polygonum type)**.
7. Differentiate between **self-pollination and cross-pollination**.
8. Describe **outbreeding devices** in flowering plants.
9. What is **apomixis**? Mention its importance.
10. Explain the **significance of double fertilization** (any four points).

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## 🟢 CHAPTER 2: Reproduction in Lower & Higher Animals

1. Describe **spermatogenesis** with a neat diagram.
2. Explain **oogenesis**.
3. What is the **menstrual cycle**? Explain its phases.
4. Define **fertilization** and explain the events of fertilization.
5. What is **implantation**? Explain.
6. Explain **placenta** – structure and functions.
7. What is **infertility**? Explain causes in males and females.
8. Describe the **IVF technique (test tube baby)**.
9. What is **contraception**? Explain any two methods.
10. Explain **hormonal control of menstrual cycle**.

## CHAPTER 3: Inheritance and Variation

1. State **Mendel's Law of Dominance** with an example.
2. Explain **incomplete dominance** with a suitable cross.
3. Explain **codominance** with an example.
4. What is a **test cross**? Explain its significance.
5. Describe **sex determination in humans**.
6. Explain **sex-linked inheritance** with an example.
7. What are **chromosomal disorders**? Explain **Down's syndrome**.
8. Differentiate between **genotype and phenotype**.
9. Explain **multiple alleles** with reference to **ABO blood group**.
10. Define **gene mutation** and explain its types.

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## CHAPTER 4: Molecular Basis of Inheritance

1. Describe the **structure of DNA** (Watson and Crick model).
2. Explain **DNA replication** with a diagram.
3. What is **transcription**? Explain the process.
4. Explain **translation** in protein synthesis.
5. Write **any six characteristics of genetic code**.
6. Explain the **lac operon** with a neat labelled diagram.
7. Differentiate between **DNA and RNA**.
8. What is the **central dogma of molecular biology**? Explain.
9. Explain the role of **mRNA, tRNA and rRNA**.
10. What is **mutation**? Explain **point mutation**.

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