

Zoology imp (sem IV)

~~UNIT I~~ . Cell Biology, Genetics & developmental Biology.

UNIT - I (long questions)

- 1) ultra structure of animal cell
- 2) Structure & functions of plasma membrane proteins
- 3) Structure & function of ER, Mitochondria, Ribosomes, lysosomes
- 4) Structure & types of chromosomes
- 5) Cell cycle & its regulation
(short)
- 1) plasma proteins ✓
- 2) Euchromatin
- 3) Heterochromatin
- 4) Nucleus ✓
- 5) Salivary gland chromosome
- 6) Lambbrush chromosome
- 7) Prophase - I
- 8) Mitosis & Centrosomes.

UNIT - II (long questions)

- 1) Structure & properties of DNA
- 2) RNA structure & types
- 3) Protein synthesis
- 4) Operon concept
- 5) PCR

(short questions)

- 1) DNA replication
- 2) Genetic code
- 3) Transcription
- 4) Electrophoresis
- 5) T-RNA ✓

UNIT - III (long questions)

- 1) Mendel's laws of inheritance
- 2) Linkage and types
- M 3) Sex determination ✓
- T 4) Sex linked inheritance (X-linked, recessive & dominant characters)
(T)
- 5) Chromosomal & Gene mutations
- 6) In-born errors of metabolism ✓

(short questions)

- T 1) Crossing over
- 2) Spontaneous Mutations
- 3) Translocation, Aneuploidy, polyploidy
- M 4) Co-dominance
- M 5) Epistasis
- M 6) Incomplete dominance
- T 7) ~~Criss~~ Criss-cross inheritance
- 8) Law of dominance
Law of independent assortment ✓ (T)
(Mendel's Law)

UNIT- IV (long questions)

- 1) Spermatogenesis
- 2) oogenesis
- 3) Fertilization - steps
- 4) Development of frog up to formation of primary germ layers.

5) Types and functions of placenta in mammals

6) Regeneration in Turbellarians & lizards

(Short questions)

1) Types of eggs.

2) Types of cleavages

3) Regeneration

4) Epiboly

5) Invagination

6) Fate maps.

7) Amnion, yolk sac, chorion, allantois.