

BIOLOGY FORM 5

Textbook: **GCSE Biology (Third Edition)** by *D.G. Mackean*

FIRST TERM

1. **Teeth** pg. 295-296
 - a. Structure of the Tooth
 - b. Types of teeth
 - c. Comparison of carnivorous and herbivores dentitions
 - d. Digestion of cellulose by ruminants

2. **Functioning as a whole**
 - a. Co-ordination pg. 163 – 167
 - b. The Endocrine system pg. 169 – 172
 - c. The Central nervous system: pg. 168 – 169
The brain, and the spinal cord

3. **The blueprint of life**
 - a. A gene as a section of DNA controlling an identifiable characteristic. pg. 182 – 183
 - b. The DNA molecule. pg. 186 – 189
 - c. Alleles as alternative forms of a gene. Mutations and mutagens. pg. 189 – 190
 - d. Cell division: *Mitosis* and *Meiosis* pg. 182 – 186
 - e. Genetics: Monohybrid cross, dominant and Recessive alleles Co-dominance, Phenotypes and genotypes, homozygous and heterozygous genotypes, Sex determination in humans. pg. 192 – 198
 - e. Variations pg. 200 – 203
 - g. Principles, uses and possible hazards of Genetic Engineering. pg. 213 – 214
 - h. Cloning of plants of economic importance. pg. 217 – 218
 - i. Principles of tissue culturing. pg. 81

4. **Increasing in numbers** pg. 322 – 325
 - a. Differences between asexual and sexual Reproduction, their advantages and disadvantages. pg. 305
 - b. Main methods of asexual reproduction. pg. 301-4, 79 - 82
 - c. Sexual reproduction in flowering plants: pg. 67 – 78
Structure of an insect-pollinated flower, Pollination, Fertilisation, seed and fruit formation, Fruit dispersal, Germination.

2 practical investigations + 1 fieldwork session

SECOND TERM

- 4d. Sexual reproduction in humans. pg. 140 – 149
Menstrual cycle, copulation, fertilisation, Nutrition and protection of the embryo, Birth and parental care.
- e. The role of sex hormones.
- f. Methods of birth control. pg. 150 – 151

5. **Management of resources.**
 - a. Natural cycles: Carbon, Nitrogen and water cycles pg. 228 – 230
 - b. Use and misuse of living resources. pg. 234 – 241
 - c. Land use and misuse in agriculture and Urbanisation.
 - d. Pollution: Air, water and land pollution. pg. 242 – 246
6. Revision of Past Papers
7. Exams

ASSESSMENT MARK DESCRIPTION TERM BY TERM

TERM	<i>Classwork/ Homework/ Tests</i>	<i>Practical Work</i>	<i>Effort</i>	<i>Participation</i>	<i>Test/s</i>	<i>TOTAL MARK</i>
November	10		5	5	30	50
Annual	15	15	10	10		50