

Please check whether you have got the right question paper.

- N.B:**
1. Attempt all questions.
  2. Figures to the right indicate full marks.
  3. Draw neat and labelled diagrams wherever required.

- Q.1** With reference to cell division explain Mitosis. **15**
- OR**
- a Discuss properties of genes and gene enzyme relationship. **08**
- b Describe polytene chromosomes. **07**
- Q.2** Explain chromosomal theory of linkage. **15**
- OR**
- a Discuss Gynandromorphy in Drosophila. **08**
- b Describe multiple alleles. **07**
- Q.3** Describe horse evolution. **15**
- OR**
- a Discuss calculating allelic frequencies. **08**
- b Describe continuous variation. **07**
- Q.4** Describe pattern formation and development. **15**
- OR**
- a Discuss hormonal control of insect metamorphosis. **08**
- b Describe factors affecting cellular differentiation. **07**
- Q.5** Write short notes on **any three**:- **15**
- a. Monohybrid cross
  - b. Co dominance
  - c. Natural Selection
  - d. Totipotency
- OR**
- Write short notes on **any three**:- **15**
- a. Spermatogenesis
  - b. SRY genes
  - c. Neanderthal Man
  - d. Cadherins
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