Animal biotechnology

Question bank

Module - I

Essay type questions.

1. Explain different types restriction enzymes used in genetic engineering.

2. What is DNA polymerase mention its function and applications.

3. What is a vector? Explain plasmids as vectors.

4. Explain different vectors used in rDNA technology.

Short answer questions

1. Applications of DNA polymerase

2. Characteristics of pUC vector

3. Short notes on action of DNA ligase.

4. Short notes on RM system.

Module II

Essay questions

1. Describe briefly about different techniques of gene transfer.

2. Define blotting and explain steps involved in southern blotting.

3. Describe various steps involved in construction of cDNA libraries.

4. Explain different steps involved in Sanger's method of DNA sequencing.

Short answer questions

1. Short notes on linkers.

2. Define PCR and explain steps in PCR techniques.

3. Applications of genomic DNA libraries.

4. Steps in northern blotting

5. Liposome mediated technology.

Module III

Essay questions

1. Define animal cell technology and describe various cell culture techniques.

2. Describe the applications of stem cell technology.

3. Describe various methods in the process of organ culture.

4. Describe the process of cell fusion (somatic hybrids).

Short answer questions

1. Natural and synthetic media.

2. Short notes on organ culture

3. Short notes monoclonal antibodies (MAB's).

4. Short notes on cryopreservation.

5. Short notes on applications of monoclonal antibodies.

6. Short notes on types of stem cells.

Module – IV

Essay questions

1. Define fertilization? Describe solid and semi solid methods.

2. Describe working mechanism of stirred tank fermenter.

3. What is monoculture. Explain it.

4. Explain different steps in DNA finger printing technology.

Short answer questions

1. Short notes on submerged fermentation.

2. Illustration of downstream processing.

3. Short notes on lyophilization.

4. Short notes on filtration.

5. Short notes on batch culture.