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6 SEM TDC ZOO M 3

2017

(May)

ZOOLOGY

(Major)

Course : 603

(Molecular Biology and Immunology)

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

The figures in the margin indicate full marks for the questions

1. *(a)* Fill in the blanks : 1×5=5

(i) ____ nucleotides are present in one turn of DNA helix.

(ii) ____ is the initiation codon in genetic code.

(iii) Plasmid is used as ____ for introducing desired DNA sequence into bacteria.

(iv) Lymphocytes are continuously made in _____ tissue.

(v) ELISA is an _____ technique.

(b) Differentiate between any *two* of the following : 4×2

(i) Genome organization in prokaryotes and Eukaryotes

(ii) Replication and Transcription

(iii) Conjugation and Transduction

(iv) Antigen and Antibody

(v) Monoclonal antibody and Polyclonal antibody

2. What is nucleic acid? Write about the different forms of DNA. 1+6

3. Explain the translation process in prokaryotes.

Or

What is central dogma? Explain the Wobble hypothesis. 1+6

4. What is gene expression? Write about the regulation of gene expression with Lac operon model. 2+5

5. Write about the different organs involved in immunity. 7

6. Write short notes on any *two* of the following : 3½×2=7

(a) AIDS

(b) Clonal selection theory

(c) Immunodeficiency diseases

(d) Functions of immunoglobulin

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