

## B.Sc Sem.-6 (Rep) Examination

CC 307

Biotechnology

September-2024

Time : 2-30 Hours]

[Max. Marks : 70

1. Discuss in detail pathogenesis, transmission and control of infectious diseases with appropriate examples. 14
- OR
- (A). Explain Koch's postulates and its significance in disease diagnosis. 7
- (B). Describe different types of bacterial toxins. 7
2. Discuss how molecular genetics used in diagnosis of human cancer. 14
- OR
- (A). Write about application of PCR in diagnosis of disease. 7
- (B). Discuss principle and applications of RIA. 7
3. Define therapeutic proteins. Explain uses of GCSF INF, Somatostatin and erythropoietin. 14
- OR
- (A). Write about monoclonal antibodies as therapeutic agents. 7
- (B). Explain principle of DNA vaccine and its role in control of diseases. 7
4. Describe structure, genetic system and pathogenesis of Covid-19. 14
- OR
- (A). Explain pathogenesis and diagnosis of Hepatitis. 7
- (B). Discuss about biological weapons with examples. 7
5. Answer any **seven** of the following: 14
1. Write principle of DNA fingerprinting.
  2. Define Epidemiology.
  3. Write importance of RFLP.
  4. Write applications of HLA typing.
  5. Name two diseases caused by enzyme deficiency.
  6. Write difference between peptide and subunit vaccines with examples.
  7. Write four applications of tissue engineering.
  8. What is the use of HAT medium in monoclonal antibody production?
  9. Write about cause and symptoms of cystic fibrosis.
  10. What is use of streptokinase? And write its source.
  11. Define pandemic and endemic with examples.
  12. Write four uses of insulin.

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