



B.Sc. VI Semester Degree Examination, Sept./Oct. - 2024

BIOTECHNOLOGY

DSC 13 : Medical Biotechnology

(NEP)

Time : 2 Hours

Maximum Marks : 60

- Note :**
- (i) Answer **all** sections.
 - (ii) Draw labelled diagram wherever necessary.

SECTION - A

Answer the following sub-questions.

10x1=10

1. (a) Expand ELISA.
- (b) Name the causative agent of Typhoid.
- (c) Who conducted the first controlled clinical trial ?
- (d) Expand GCP.
- (e) Define Nano biosensors.
- (f) What do you mean by Sol-gel process ?
- (g) Define adult Stem cell.
- (h) What is Radiotherapy ?
- (i) What are Cancer Vaccines ?
- (j) Define Passive immunization.

SECTION - B

Answer **any four** of the following questions.

4x5=20

2. Briefly explain about the causal agent, mode of infection, symptoms of Tuberculosis.
3. Describe the various career opportunities available within the field of clinical research.
4. Write a short note on high energy ball milling in Nano biotechnology.



5. Discuss the applications of stem cells in tissue engineering and regenerative medicine.
6. Explain the mechanisms behind live attenuated vaccines.
7. Give the brief account of the potential advantages of DNA vaccines.

SECTION - C

Answer **any three** of the following questions.

3x10=30

8. Write an explanatory note on the causative agent, mode of transmission, symptoms and preventive measures of AIDS.
9. Discuss the scope of clinical research and its potential benefits and challenges.
10. Describe the potential applications of nanotechnology in cancer therapy.
11. Analyze the ethical considerations surrounding the use of stem cells in research and clinical practice.
12. How do traditional methods differ from newer approaches in the development of subunit vaccines ?

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