CBCS SCHEME

USN | | | | | | | | | | 17NT82

Eighth Semester B.E. Degree Examination, July/August 2021
Bio-Nanotechnology

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions.***

1 a. Describe the classification and features of Nucleic acids. **(10 Marks)**
b. Write a note on : Chemical transformation using bio-nanomachines. **(10 Marks)**

2 a. Explain about energies of light dependent reaction in detail. **(10 Marks)**
b. Write a short note on Biomaterials and bio-meneralization. **(10 Marks)**

3 a. Explain about construction of bio-nanomachines. **(08 Marks)**
b. Discuss about biomolecular structure and stability. **(12 Marks)**

4 a. Explain about protein folding. **(10 Marks)**
b. Describe about design principles of self assembly. **(10 Marks)**

5 a. Explain about nanoscale effects of bio-nanomachines. **(10 Marks)**
b. Write a note on Actin and Myosin. Explain about Thymidylate Synthase. **(10 Marks)**

6 Explain the Molecular Plans of Biomaterials. **(20 Marks)**

7 a. Explain about medical diagnostics indication for diagnostics procedure and specific methods. **(10 Marks)**
b. Write a note on Targeted drug delivery. **(10 Marks)**

8 a. Explain in detail about nanoscale materials for drug delivery. **(10 Marks)**
b. Discuss about nanomedicine and nanosurgery. **(10 Marks)**

9 a. Explain the possible strategies for the construction of Bio-nanomachines. **(10 Marks)**
b. Discuss about R & D in nanomadicine. **(10 Marks)**

10 a. Write a note on Artificial smell sensor. Explain artificial taste sensor. **(10 Marks)**
b. Discuss about artificial light sensor and sensing of chemicals. **(10 Marks)**

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.