

Turn Over

13. Write notes on bulk materials.

QP CODE: 24001182

Reg No

Name :

5

Max. Marks: 80

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B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, MARCH 2024

Sixth Semester

B.Sc Biotechnology Model III

CHOICE BASED CORE COURSE - BT6CBT02 - NANOTECHNOLOGY

2017 Admission Onwards

ACF27C03

Time: 3 Hours

Part A

Answer any **ten** questions. Each question carries **2** marks.

- 1. Define Nanotechnology.
- 2. Who wrote the book 'Engines of creation'?
- 3. What is Buckminister fuller?
- 4. Explain Blue shift assay.
- 5. Define receptor mediated endocytosis.
- 6. Who identified the mechanisms of RNA interference?
- 7. Define physical targeting.
- 8. Define nanoprobe.
- 9. Define EPR effect.
- 10. For which disease P24 can be used as a diagnostic marker?
- 11. What is a nanowire?
- 12. What are the applications of nanogel?

(10×2=20)

Part B

Answer any **six** questions. Each question carries **5** marks.

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- 14. What are the main advantages of nanotechnology?
- 15. Write a note on composites.
- 16. Elaborate the Physico chemical properties of Nanomaterials.
- 17. Write a note on the essential requirements needed for a nanoparticle for the targeted delivery.
- 18. What are the chemical strategies involved in drug targeting?
- 19. Discuss about the various markers used for the diagnosis of AIDS.
- 20. Discuss about the application of RNA interference in Therapy.
- 21. Write a note on Structure and Applications of Nanorobots.

(6×5=30)

Part C

Answer any **two** questions. Each question carries **15** marks.

- 22. Write an essay on nanotechnology in India.
- 23. Explain different interactions of nanomaterials with drug molecules.
- 24. Explain targeted drug delivery with emphasis on different types of ligands used in targeting.
- 25. Write an essay on synthesis, Structure, Propeties and Application of Liposomes.

(2×15=30)