



# CBCS SCHEME

18BT81

## Eighth Semester B.E. Degree Examination, June/July 2024 Regulatory Affairs in Biotech Industry

Time: 3 hrs.

Max. Marks: 100

**Note:** Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. How does GCP help in process validation of pharmaceutical manufacturing? Explain. (10 Marks)
- b. Justify that concurrent validation is distinct from retrospective validation. (10 Marks)

OR

- 2 a. What is GMP? Describe how GMP requirements will help to maintain the products quality. (10 Marks)
- b. What is ISO – 9000 series? Provide examples of how ISO 9000 affects GMP and International harmonization. (10 Marks)

### Module-2

- 3 a. Make succinct notes about :  
i) Limits of Detection (LOD)      ii) Limits of Quantification (LOQ). (10 Marks)
- b. Describe the procedure for HVAC system validation. (10 Marks)

OR

- 4 a. How does the SPC tool aids in the process of process validation? Explain with the case of HPLC. (10 Marks)
- b. Explain the validation process concepts with respect to semi – solid dosage forms. (10 Marks)

### Module-3

- 5 a. ISO 9000 QMS prescribes 8 Quality management principles as a guide for forming and managing the system. Briefly describe 5 of them. (10 Marks)
- b. What do you mean by document and data control? Write a note on its implementation. (10 Marks)

OR

- 6 a. Explain the importance of maintaining ISO standards would assist with product realization. (10 Marks)
- b. Describe the Managements role in sustaining ISO standards. (10 Marks)

### Module-4

- 7 a. Is there a difference between Quality Control and Quality Assurance? If yes, what is it? (10 Marks)
- b. Explain Quality policy and objectives related to Pharmaceutical Industry. (10 Marks)

OR

- 8 a. What are the benefits of Total Quality Management? Mention atleast 5. (10 Marks)
- b. Put up a short note on :  
i) Inspection and Testing      ii) Training and Servicing. (10 Marks)

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**Module-5**

- 9 a. Explain with an example Failure Mode Effects Analysis (FMEA). (10 Marks)  
b. Describe the concept of Clinical Trials Quality Assurance Management System. (10 Marks)

OR

- 10 a. Discuss on the concept of model validation and verification during the life cycle manufacture process description. (10 Marks)  
b. Give your opinion on the guidelines and procedures for manufacturing of solid dose pharmaceuticals. (10 Marks)

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