[Time: 3 Hours] [Max. Marks: 100]

Pharmaceutical Technology and Validation (Revised Scheme 4)

Q.P. CODE: 9362

Your answers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessary.

LONG ESSAY (Answer any TWO)

 $2 \times 20 = 40 \text{ Marks}$

- What are the objectives of IVIVC? Describe different levels of correlation for IVIVC. 1.
- 2. Explain the procedure for determining the solubility of an API. Describe different techniques of increasing the solubility of a sparingly soluble drug. Compare their merits and demerits.
- 3. Explain the different approaches to CLV and fixing their acceptance criteria.

SHORT ESSAY (Answer any FIVE)

5 X 10 = 50 Marks

- 4. List and explain the ICH guidelines associated with stability testing.
- 5. What is polymorphism? What is its significance in dissolution? Name the methods to identify polymorphs.
- 6. Bracketing and Matrixing in stability studies
- 7. How will you perform HEPA filter leak test (DOP), give its significance.
- 8. Criteria for granting biowaivers and their significance
- 9. Qualification of Sterilization Tunnel

SHORT NOTES 2 X 5 = 10 Marks

- 10. **BACPAC**
- ***** How will you sample particulate matters in clean rooms? 11.