First Semester M. Pharm Degree Examination - JAN-2019
[Time: 3 Hours] [Max. Marks: 75]

Product Development and Technology Transfer O.P. CODE: 5104

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

LONG ESSAY (Answer any Three)

3 X 10 = 30 Marks

- 1. Define Solubility. Discuss different methods to improve the solubility.
- 2. What are the contents of Investigational New Drugs Application (IND)?
- 3. Discuss the various optimization parameters to be considered during technology transfer.
- 4. Explain various parameters to be considered during selection of container closure system for parenteral formulation.

SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

- 5. Write a note on Bulk Active Chemical Post Approval Changes (BACPAC).
- 6. Discuss the product registration guidelines as per CDSCO.
- 7. How is a polymorphic form of drug deduced? Why it is essential in formulation development.
- 8. What is Pilot Plant? Explain the factors to be considered in the organization of pharmaceutical Pilot Plant.
- 9. Explain how the development of Master Formula Records and Batch Manufacturing records play an important role in Pilot Plant Scale Up Studies.
- 10. Discuss the various issues faced during modern drug packaging system.
- 11. List and explain QC tests for Blister packaged products.
- 12. Define and explain Primary and Secondary packing materials
- 13. Write a note Development Report.
- 14. Explain metal as the container for the Pharmaceutical Packaging.

* * * * *