Sl.No. M19213 Course Code: 3100501/3200501

VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM (Deemed to be University)

Pharm.D (POST BACCALAUREATE) DEGREE EXAMINATION August 2018 Fifth Year

CLINICAL RESEARCH

Time: Three hours

Maximum: 70 marks

I. Write essays on any **TWO** questions:

 $(2 \times 15 = 30)$

- 1. In- detail write about the various procedures involved in investigational new drug (IND) application.
- 2. Explain the regulatory environment in United States of America.
- 3. Enumerate the drug development process.

II. Write short answers on any **SIX** questions:

 $(6 \times 5 = 30)$

- 4. Explain the pharmacological approach for Drug discovery.
- 5. Define clinical trial. Write about Phase II clinical trial.
- 6. Enumerate the various methods of Post Marketing surveillance.
- 7. Explain about any two Ethical guidelines in clinical research.
- 8. Write down the roles and responsibilities of Clinical research associate.
- 9. Define informed consent. Explain the informed consent process.
- 10. Write a short note on safety monitoring in clinical trials.
- 11. Briefly write about the designing of protocol.

III. Write short notes on any **FIVE** question:

 $(5 \times 2 = 10)$

- 12. Explain any four challenges in implementation of GCP guidelines.
- 13. What is meant by Phase-0 clinical trial?
- 14. Write any four responsibilities of Sponsor.
- 15. Write the composition of institutional Ethics committee.
- 16. Write a short note on Abbreviated new drug application.
- 17. Define clinical data management and write few of its components.