

**Code No: PD501****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****Pharm.D V Year Supplementary Examinations, October - 2019****CLINICAL RESEARCH****Time: 3hours****Max.Marks:70**

**Answer any five questions**  
**All questions carry equal marks**

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1. Describe the following approaches for the drug discovery process:
  - a) Drug characterization
  - b) Dosage form. [7+7]
2. Describe the importance of the following in Drug Development process:
  - a) Pharmacological
  - b) IND application. [7+7]
- 3.a) What are the different phases of clinical trials. Explain in detail.  
b) Write about CDSCO guidelines. [7+7]
4. Write about the following:
  - a) Methods of post marketing surveillance
  - b) Challenges in the implementation of guidelines. [7+7]
5. Describe the following:
  - a) Overview of regulatory environment in Europe.
  - b) Composition, responsibilities and procedures of IEC [7+7]
6. Describe the responsibilities of the following personnel as per ICH GCP:
  - a) Sponsor
  - b) Investigators [7+7]
- 7.a) Describe the protocol involved in the Abbreviated NDA submission.  
b) Write about designing of clinical study documents. [7+7]
- 8.a) Discuss the overview on Ethical guidelines in Clinical Research.  
b) Write about the Safety monitoring in clinical trials. [7+7]

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