

**Q.P. Code: 503326**

**Reg. no.: .....**

**Fifth Year Pharm D Degree Supplementary Examinations, January 2017**

**Clinical Pharmacokinetics and pharmacotherapeutic Drug Monitoring**

**Time: 3 Hours**

**Total Marks: 70**

- Answer all questions
- Draw diagrams wherever necessary

**Essay:**

**(3x10=30)**

1. Explain the indications for therapeutic drug monitoring and explain TDM of phenytoin, digoxin and cyclosporine.
2. Explain the genetic polymorphism in cytochrome P<sub>450</sub> isozymes in drug metabolism.
3. Explain the pharmacokinetic factors that govern dosage adjustment in pediatric and elderly patients

**Short notes:**

**(8x5=40)**

4. Explain the mechanisms of enzyme induction.
5. Explain the factors affecting dialyzability of a drug.
6. Describe nomograms and its applications in designing dosage regimen.
7. Explain bayesian theory with an example.
8. Explain the principles for dosage adjustment in hepatic failure
9. Explain the patient selection criteria for IV to oral conversion
10. Explain adaptive dosing or dosing with feedback.
11. Describe the salient features that differentiates conventional and population pharmacokinetics.

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