

Q.P. Code: 203340

Reg. no.:

**Second Pharm D Post Baccalaureate Degree Supplementary
Examinations September 2023**

Paper III - Clinical Pharmacokinetics and Pharmacotherapeutic Drug Monitoring

Time: 3 Hours

Total Marks: 70

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essays:

(3x10=30)

1. Explain the necessity and process of TDM in patients receiving lithium and methotrexate.
2. Enumerate various causes of renal impairment. Discuss in detail the pharmacokinetic considerations in renal failure patients.
3. Discuss the importance of genetic polymorphism of cytochrome P-450 isozymes on drug metabolism with suitable examples.

Short notes:

(8x5=40)

4. Write about the biliary excretion of drugs and the consequences of its inhibition.
5. Explain with suitable examples how the elimination half-life of a drug influences the duration of activity.
6. Discuss drug interactions related to protein binding and metabolism.
7. How do you adjust the dosage regimen in renal failure patients based on total body clearance of the drug.
8. Discuss population pharmacokinetic analysis using the NONMEM method.
9. Describe the two-stage approach in population pharmacokinetic analysis.
10. Explain the difficulties in dose adjustment in patients with hepatic disease.
11. Extracorporeal removal of drugs.
