Q.P. Code: 503326 **Reg. no.: ……**

Fifth Year Pharm D Degree Supplementary Examinations September 2023

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. a) Explain the process and clinical significance of conversion from intravenous to oral dosing.

   b) Discuss the factors to be considered during the design of dosage regimen.

2. Discuss various markers used in the measurement of glomerular filtration rate along with their advantages and disadvantages. Enumerate the various formulae used for the measurement of creatinine clearance.

3. Explain the necessity and process of TDM in patients receiving cyclosporine and carbamazepine.

Short notes: **(8x5=40)**

4. Explain the various pharmacokinetic drug interactions with suitable examples.

5. How do you adjust dosage regimen in renal failure patients based on elimination half-life of drug.

6. Explain the factors considered in the design of dosage regimen for paediatric patients. Give any two formulae for the calculation of child dose.

7. Describe the role of genetic polymorphism in drug targets.

8. Describe the protocol for TDM of a drug.

9. Describe peritoneal dialysis with its advantages and disadvantages.

10. Explain inhibition of biliary excretion.

11. Discuss population pharmacokinetic analysis using NONMEM method.

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