

# Question Paper

Exam Date & Time: 16-Jun-2023 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

Instructions: Answer ALL questions.

### Clinical Pharmacokinetics and Pharmacotherapeutic Drug Monitoring [PPR 5.3T-S3]

Marks: 70

Duration: 180 mins.

#### Section A

Answer all the questions.

Long Answer Questions (3 x 10 marks = 30 marks)

- 1) Explain the TDM of any four anti-epileptic drugs (10)
- 2) Explain genetic polymorphism of drug metabolism, drug transporters and targets (10)
- 3) Explain extra-corporeal method for drug removal with types and factors influencing such removal (10)

#### Section B

Answer all the questions.

Short Answer Questions (6 x 5 marks = 30 marks)

- 4) Explain the concepts of TDM (5)
- 5) Describe the types of enzyme inhibition (5)
- 6) Describe the principles of determining dose and dosing interval (5)
- 7) Explain the dosage adjustment in elderly patients (5)
- 8) Explain the adaptive methods of dosage adjustment (5)
- 9) Discuss about the nomograms, their applications with example (5)

#### Section C

Answer all the questions.

Give Reasons for the Following (5 x 2 marks = 10 marks)

- 10) TDM is useful to assess medication adherence (2)
- 11) Warfarin has many distribution interactions (2)
- 12) **Effect of auto-induction of carbamazepine cannot be seen immediately** (2)
- 13) Dosage adjustment in hepatic failure is not straight forward as in renal failure (2)
- 14) In population pharmacokinetic studies, variability will be actively explored (2)

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