I. Circle (T)rue or (F)alse

1. T  F  Communication of information on drug use policies and current developments that influence drug selection are important components of Drug Information Services.

2. T  F  Pharmacist in the P&T Committee is involved in providing drug evaluations to develop or improve the hospital formulary.

3. T  F  Clinicians who practice clinical pharmacokinetics generally have scientific training in biopharmaceutics and clinical pharmacokinetics in addition to an educational background in pathophysiology of the disease.

4. T  F  In-house computer is a mainframe computer that is shared by many users simultaneously in a single pharmacy.

5. T  F  A hybrid computer system operates part of the time as an in-house system, with a microcomputer located in the pharmacy. However, it can go on-line for transferring data from the pharmacy to a central computer facility.

6. T  F  There are basically four primary elements of a clinical pharmacokinetic services: personnel, a drug analysis laboratory, a computer support to analyze data, and patient information.

II. Choose only one answer in each of the following questions:

A. Drug Use Review (DUR) is an essential service of Drug Information Centers in hospitals. Drug Information involvement in DUR includes:

   a. Participation in data gathering.
   b. Literature support.
   c. Planning and coordination.
   d. All of the above.
   e. None of the above.
B. Which of the following is **not** one of the services provided by the Drug Information Center:

a. Adverse drug reaction reporting.
b. Publication of a Newsletter.
c. Poison control services.
d. Answering DI requests.
e. None of the above.

C. Clinical Pharmacokinetics is a health science discipline that deals with applying pharmacokinetic principles to:

a. ensure a safe therapeutic management of individual patient.
b. Evaluate and interpret physical and metabolic characteristics of the patient.
c. Evaluate the contribution of drug interaction to patient response.
d. All of the above.

D. TDM means:

a. use of measurements of drug concentrations to guide dosage adjustments.
b. obtain the maximum efficacy of drugs without undue toxic effects.
c. Monitor drugs with a narrow therapeutic range as well as some drugs with wide therapeutic range.
d. Only (a) and (b).
e. Only (b) and (c).
f. All of the above.

E. Monitoring drug levels will be useful if:

a. a direct relationship exists between plasma concentration and pharmacological or toxic effects.
b. the inter-individual variability in drug levels from the same dose is large.
c. Appropriate analytical techniques to determine drug level are available.
d. All of the above.
e. None of the above.

F. **FPIA** (or **TDx**) means:

a. Fluoro Polarimetric Immunoassay.
b. Fluorescence Polymerization Immunoassay.
c. Fluorescence Polarization Immunoassay.
d. Fluorescence Performance Immunoassay.
e. None of the above.
G. If the turnover rate (TOR) for a pharmacy is 5, the inventory in this pharmacy remained unsold for:

a. 72 days.
b. 90 days.
c. 5 weeks.
d. 5 months.
e. None of the above.

H. Which of the following is not one of the services available with pharmacy computer system:

a. Prescription filling and refilling.
b. Third-party programs.
c. Management reports.
d. Daily and monthly log.
e. None of the above.

I. If the Turn Over Rate for a hospital pharmacy is 6 and the minimum inventory in this pharmacy is 2-month supply of drugs, then

a. the average inventory is 2-month supply
b. the inventory will remain unsold for 60 days
c. the inventory will remain unsold for 60 days and the maximum is 2-months supply
d. this will never happen, because the minimum is equal to the maximum.
e. All of the above
f. None of the above

J. The increase in number of orders in EOQ method will increase

a. carrying costs
b. procurement costs
c. acquisition costs
d. All of the above

K. Effective inventory control consists of:

a. finding how much of an item should be ordered at one time.
b. finding when should the item be reordered.
c. finding which items should be controlled.
d. All of the above.
e. None of the above.
III. List five inventory control methods and briefly explain two of them:

1. 
2. 
3. 
4. (explain) 
5. (explain)

IV. List 4 advantages and 4 disadvantages of combining Drug Information Centers and Poison Control Services.

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What are the major three components of clinical pharmacokinetic services? Briefly explain each one of them.

1.

2.

3.