18/11/16

Total No. of printed pages = 4

PY 132701

Roll No. of candidate | | | | | | | | | | |

2016

B. Pharm 7th Semester End-Term Examination

PHARMACEUTICS - VI

Full Marks – 100 Pass Marks – 35 Time – Three hours

The figures in the margin indicate full marks for the questions.

1. (A) Answer any *six* of the following questions : 2×6=12

(i) Define the term Apparent volume of distribution. Site I of Human Serum Albumin is also known as ____ binding site.

(ii) Explain why phase two reactions are also known as true detoxification reaction.

(iii) What do you mean by Flip-Flop phenomenon ?

(iv) What is order of a reaction ? Define mixed order kinetics.

(v) Differentiate between Relative Bioavailability and Absolute Bioavailability.

(vi) Define Clearance. The normal glomerular filtration rate is ..... ml/min.

[Turn over

(vii) What do you mean by Sink Condition ?

(B) Answer any *six* of the following questions : 3×6=18

(i) —— type of design is preferred for bioequivalence study of drug with long $t_{1/2}$. Give the characteristics of Latin square design.

(ii) Define the term 'Polymorphism' and its impact on absorption of drugs.

(iii) What do you mean by clinical Pharmacokinetics ?

(iv) Explain what may be the consequences of administering :

(a) Aspirin along with antacids

(b) Warfarin -Phenylbutazone.

(v) Give the different approaches for promoting passage of drug through BBB.

(vi) Differentiate between parallel design and cross over design.

(vii) What are ATP cassettes ? Discuss its importance in drug resistance.

2. Answer any *eight* of the following questions : 5×8=40

(i) Explain the different mechanism of drug absorption through GIT.

(ii) Explain the different biological barriers involved in drug distribution.

(iii) Define Non-Linear Kinetics. Explain the various causes of Non-Linear Kinetics.

(iv) Write in details on various aspects of Pharmacokinetic determination by Urinary Excretion method.

(v) Write in details on clinical Pharmacokinetics and its scope.

(vi) Write a short note on in verto-invivo correlation.

(vii) Explain the pH partition theory briefly.

(viii) The normal dose of a drug is 200mg. If the fraction excreted unchanged in urine is 0.75, what would be the dose for a patient whose creatinine is 13ml/min ? Calculate the new dosing interval of the normal dosing frequency is every two hours.

(ix) Differentiate between Plasma Protein Drug Binding and Tissue Drug Binding.

(x) Explain the BCS classification system of drugs.

3. Answer any *three* of the following questions : 3×10=30

(i) Explain the determination of first order rate constant by method of Residuals. Derive an expression for calculating various pharmacokinetic parameters for a drug adminstered by IV Bolus administration. 5+5=10

(ii) Classify the different methods for measurement of Bioavailability. Describe the plasma level time method for assessment of Bioavailability. Describe in brief the Bioequivalence study protocol. 2+3+5=10

(iii) What do you mean by renal failure ? Explain how you will adjust the dosage regimen in case of renal failure. Write in details on Pharmacokinetics Drug-Drug interactions with suitable examples. 1+5+4=10

(iv) Write in details on various physicochemical and physiological factors affecting absorption of drugs. With suitable classification, explain the various types of metabolic reactions. 5+5=10