Exam.Code:0438
Sub. Code: 3487

1058

M.Sc. (Biotechnology) Fourth Semester
MBIO-402: Drug Designing and Drug Delivery

Time allowed: 3 Hours Max. Marks: 80

NOTE: *Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.*

x-x-x

I. Attempt the following:-

a) Define Efflux transporters.

b) What is pharmacokinetics?

c) What is high throughput screening?

d) What are prodrugs?

e) What is acute toxicity?

f) Define clinical trials?

g) What is ANDA?

h) What is trial drug packaging? (8x2)

UNIT – I

II. a) Discuss the factors affecting drug excretion.

b) Discuss the factors contributing to 2D QSAR. (2x8)

III. a) Discuss the significance and methods of high throughput screening.

b) Discuss the procedure of ligand based drug design. (2x8)

UNIT – II

IV. a) Discuss the derivation of AUC and elimination half life from C vs T plot.

b) Discuss the different theories of coordinate bonding. (2x8)

V. a) Discuss the significance and methods to study chronic toxicity.

b) Write short notes on:-

i) Pharmacodyanamics

ii) Clearance of drug (2x8)

P.T.O.

UNIT – III

VI. a) Describe the procedure of drug approval by FDA.

b) Discuss the regulations governing the conduct of clinical trials. (2x8)

VII. a) Explain the parameters and role of preclinical testing in drug approval.

b) Describe the considerations for blinding of drug products. (2x8)

UNIT – IV

VIII. a) Discuss the mechanism of action for soft drugs.

b) Explain the applications of microparticles in drug delivery. (2x8)

IX. a) Discuss the diffusion controlled drug delivery systems.

b) Describe the ligand appended approach to drug delivery. (2x8)

x-x-x