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B. Pharmacy (Ayurveda) 3rd Semester Examination

Pharmacology-I (O.S.)

IV

Time : 3 Hours

Max. Marks : 90

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt all questions.

1. Answer any ten:

- (a) Describe the demerits of parenteral route of drug administration.
- (b) Explain about the implant route of drug administration.
- (c) Explain about the ionization on absorption.
- (d) Explain enzyme inhibition.
- (e) Explain glucoronide conjugation.
- (f) Explain demerits of protein binding.
- (g) Describe the volume of distribution.
- (h) Therapeutic index.
- (i) Therapeutic window.
- (j) Tachyphylaxis.
- (k) Enzyme induction with example.
- (l) First pass metabolism. **(2×10=20)**

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[P.T.O.]

2. Answer any two of the following:
- (a) What is signal transduction? Draw and describe the structure of G protein coupled receptor. Explain the Adenyl cyclise- cAMP pathway.
 - (b) Enumerate the routes of drug elimination. Write in detail about non renal route of excretion.
 - (c) Define and classify the autocoids. Describe the biosynthesis, release and pharmacology of histamine with special reference of triple response. **(2×12½=25)**
3. Answer any two of the followings:
- (a) Explain the JAK- STAT pathway.
 - (b) Enlist the factors that can modify the drug action. Explain how body size, age, and disease state modifies the drug action.
 - (c) With the help of suitable examples describe about the non receptor mediated mechanisms of drug action. **(2×10=20)**
4. Answer any five of the following:
- (a) Define affinity and intrinsic activity. Define agonist, antagonist, inverse agonist and partial agonist.
 - (b) Explain the antagonism phenomenon and differentiate between competitive and non competitive antagonism.
 - (c) Write a note on drug potency and efficacy.
 - (d) With the help of suitable example explain the structure of receptor regulated ion channel.
 - (e) Classify the antihistaminics. Write the therapeutic uses of antihistaminics.
 - (f) Write a note on secondary messengers. **(5×5=25)**