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H-BP-604

**B.Pharmacy (Semester-VI) Examination,
July, 2022**

BIOPHARMACEUTICS AND PHARMACOKINETICS

Time Allowed : Three Hours

Maximum Marks : 75

Minimum Passing Marks : 28

Note : Attempt **all** sections as directed.

SECTION-I

(Objective Type Questions)

1. Answer **all** questions. Each question carries **2** marks.

[2×10=20]

- (i) Define Bioavailability.
- (ii) Enlist the factors affecting drug distribution.

- (iii) What is protein binding?
- (iv) Give one example of bioequivalence.
- (v) What is renal clearance?
- (vi) Define $t_{1/2}$.
- (vii) Define absolute and relative bioavailability.
- (viii) What is Compartment modeling?
- (ix) What is Steady state?
- (x) Write the Michaelis- Menten equation.

SECTION-II

(Long Answer Type Questions)

2. Attempt **any two** questions. Each questions carries **10** marks. [10×2=20]

- (i) Explain in detail the renewable sources of energy.
- (ii) Discuss the features, structure and functions of forest ecosystem.
- (iii) Discuss the causes and measures for prevention of air pollution.

SECTION-III

(Short Answer Type Questions)

3. Attempt **any seven** questions. Each questions carries **5** marks. [7×5=35]

- (i) Briefly discuss significance of protein binding.
- (ii) Discuss the Phase-II metabolic reactions.
- (iii) Discuss the methods for improvement of drug solubility.
- (iv) Explain the pathophysiology of renal failure.
- (v) Briefly discuss compartment modeling.
- (vi) Discuss the dose / concentration response curve after oral administration of drug.
- (vii) Explain two compartment open model.
- (viii) Discuss the factors causing non-linearity.
- (ix) Discuss about apparent volume of drug distribution.

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