Total No. of printed pages = 3

1.5 (B)

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

2020

B.Pharm (Practice) 1st Year Final Examination

APPLIED PHARMACEUTICS

Full Marks – 60 Time – Three hours

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

1. Choose the correct answer of the following (10 × 1 = 10)

(i) Validation is an activity of

(a) Quality control

(b) Good laboratory practice

(c) Quality Assurance

(d) Good manufacturing practice

(ii) HPLC, UV analysis is done under

(a) Quality control (b) Quality assurance

(c) Chemical control (d) All of the above

(iii) Gelatin shell are used for the preparation of

(a) Multilayered Tablet (b) Pills

(c) Capsules (d) Ointments

(iv) Which of the formulation contains about 66%w/w sugar?

(a) Lotion (b) Emulsion

(c) Suspension (d) Syrups

(v) Which one of the following is a good drug candidate for transdermal delivery?

(a) A potent drug (b) A highly hydrophilic drug

(c) A highly lipophilic drug (d) A less potent drug

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(vi) Fick's first law of diffusion is related with _____

(a) Pore transport (b) Passive diffusion

(c) Ion-Pair transport (d) Endocytosis

(vii) Reversible transfer of drug between the blood and extravascular fluids and tissues is called _____

(a) Absorption (b) Metabolism

(c) Distribution (d) Excretion

(viii) Sertoli - sertoli cell junction is present in _____

(a) Blood-testis barrier (b) Blood-placental barrier

(c) Blood-CFS barrier (d) Blood-brain barrier

(ix) Which of the following drug-binding site to Human Serum Albumin is known as diazepam binding site?

(a) Site I (b) Site II

(c) Site III (d) Site IV

(x) First-pass metabolism is not a limitation for _____

(a) Suppositories (b) Transdermal patch

(c) Oral liquid (d) Both (a) and (b)

2. Answer any six questions. (6 × 5 = 30)

(a) What are the objectives of novel drug delivery system? Discuss factors affecting novel drug delivery system?

(b) What do you mean by matrix and reservoir system? Discuss any one of them with proper illustration and example.

(c) Differentiate between Good laboratory practice and Good manufacturing practice?

(d) Write the merits and demerits of capsule as solid dosage form. Briefly, explain the storage and packaging of capsule.

(e) What is mean by rate-limiting step (RDS) in drug absorption? Enlist factors influencing GI absorption of a drug.

(f) Name the specialized barriers to distribution of drugs. Discuss briefly about blood-placental barrier.

(g) What is protein binding of drugs? Compare between plasma protein-drug binding and tissue-drug binding.

(h) Define biotransformation of drugs. Write various pathways of drug biotransformation with examples.

3. Answer any two questions. (2 × 10 = 20)

(a) Explain the importance of structure and physiology of cell membrane in GI absorption of drug. Discuss various mechanisms of drug absorption with example of each.

(b) What do you mean by pharmaceutical dosage form? Classify and explain different types of dosage form briefly?

(c) Write notes on any two of the following

(i) rDNA technology

(ii) Marketed drugs (Novel sustained and controlled

(iii) Infusion pumps