BACHELOR OF PHARMACY (PRACTICE)
F.Y. B. Pharm. (Practice) :SUMMER- 2022
SUBJECT : APPLIED PHARMACEUTICS

Day : Friday | Time : 10:00 AM-01:00 PM
Date : 3/6/2022 | **S-20430-2022** | Max. Marks : 60

N.B.

1) **Q.No. 1 and Q.No. 5** are **COMPULSORY**. Out of remaining attempt **ANY TWO** questions from Section – I and **ANY TWO** questions from Section – II.
2) Figures to the **RIGHT** indicate **FULL** marks.
3) Answer to both the sections should be written in **SEPARATE** answerbook.

SECTION – I

Q.1 A) Attempt **any seven** objective questions (MCQs / fill in the blanks) of the following. **(07)**

i) A drug has dose of 15 mg per Kg body weight t.i.d. for 3 days. For a kid of 20 Kg body weight which of the following composition and pack is most suitable.

a) 150 mg / 5 ml, 30 ml
b) 125 mg / 5 ml, 60 ml
c) 300 mg / 5 ml, 45 ml
d) 300 mg / 5 ml, 30 ml

ii) An ideal requirement of a drug with usual dose of one tablet three times a day to formulate its sustained release tablet are ____.

a) Short biological half life
b) Conventional dose should be 500 mg or more
c) Narrow therapeutic window
d) a & c

iii) One of the following is used as disintegrating agent in tablets -

a) Talc
b) Maize starch
c) Gum acacia
d) Magnesium stearate

iv) Topically applied Keratolytic drug should reach at following site for drug action.

a) Skin surface
b) Within skin layer
c) Systemic circulation
d) Any of these

v) A liquid dosage form called _____ is hydroalcoholic solution of a drug for oral administration.

vi) Topically applied soft paraffin minimizes dryness of skin due to its _____ effect.

vii) Sodium chloride solution of ____ % w/v is isotonic with body fluids.

viii) Disintegrating time for film coated tablet in 0.1 N HCl may be _____ minutes.

Q.1 B) Discuss approaches to select flavours in Pharmaceutical formulation. **(03)**

Q.2 Discuss various quality control tests for tablets. **(10)**

Q.3 a) Write reasons to formulate suppositories. **(05)**
b) Write method to inject insulin and related precautions. **(05)**

Q.4 Answer **ANY FIVE** of the following. **(10)**

i) Write ideal properties of capsule shell.
ii) Write difference between water for injection and sterile water for injection.
iii) Write any one approach to remove pyrogens from water.
iv) Write two merits of DPI over MDI.
v) Write two reasons to formulate transdermal patch.
vi) Write difference between QA and QC.

P.T.O.

SECTION – II

Q.5 A) Attempt **any seven** objective questions (MCQs / fill in the blanks) of the following. **(07)**

i) Which of the following routes of administration will show 100% bioavailability _____.

a) Oral b) Subcutaneous
c) Intravenous d) Rectal

ii) Which drug undergo endocytosis absorption mechanism _____.

a) Sugar b) All ionic drugs
c) Oral polio vaccine d) thiouracil

iii) A drug having Low solubility and High Permeability is classified as _____.

a) BCS Class I b) BCS Class II
c) BCS Class III d) BCS Class IV

iv) Following is the primary drug excretion fluid _____.

a) Saliva b) Urine
c) Sweat d) Fecal matter

v) Unionized form of drug shows _____ absorption and ionized drug shows _____ absorption.

vi) _____ molecular size of drug pass from extracellular fluid to intracellular fluid.

vii) Name of enzyme involved in the liver metabolism _____.

viii) The pH of Blood plasma, extra cellular fluid and CSF is _____.

Q.5 B) Describe plasma drug concentration-time profile **(03)**

Q.6 Define Bioavailability and explain in detail factors affecting it. **(10)**

Q.7 a) Explain Phase I and Phase II metabolism of drugs. **(05)**

b) Explain in details about various drug absorption mechanisms. **(05)**

Q.8 Answer **ANY FIVE** of the following. **(10)**

i) What is mean by pre-systemic metabolism?

ii) What are physicochemical properties affects the drug absorption?

iii) Why metabolic acidosis patients should not take basic drugs. Give example.

iv) What will happen if a lipophilic drug that is absorbed into systemic circulation is not Metabolised?

v) Define drug distribution in body and what are the steps in distribution of drugs?

vi) Differentiate between generic and branded medicine.

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