Exam.Code:0433
Sub. Code: **3453**

1127

M.Sc. (Applied Chemistry/ Pharmaceutical)
Third Semester
Paper – 301: Medicinal Chemistry

Time allowed: 3 Hours Max. Marks: 60

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

x-x-x

Q1

a) What are anti -epileptic drugs? Give its one example
b) Which opioid derivative of Morphine is used as an anti tussive agent.
c) Explain de-novo drug designing
d) Give proprietary name and structure of one inhalational anesthetic
e) Write the structure and uses of Dapsone. Name the class of drugs it belong
f) Give name and structure of a NSAID drug which is both Cox-1 and Cox-2 inhibitor
g) What are nitro vasodilators and what is their function
h) Give structure and chemical name of Diazepam
i) What is co-trimoxazole? Give class of drug it belongs
j) How are Prodrugs used to mask "Bad Taste"
k) Which sulphonamide is used to manage burns on skin
l) Give the structure of Progesterone and its uses. (1 x 12)

UNIT 1

Q2

a) Discuss Penicillin antibiotics and give its mode of action
b) What are Phase II drug metabolism reactions? (8,4)

Q3

a) Explain antileprotic drugs and give the synthesis of pyrazinamide
b) What are Beta-Adrenoreceptor blockers? Give the structure and uses of the standard drug (6,6)

UNIT 2

Q4

a) Give the classification of general anesthetics giving at least two examples of each class
b) Define NSAID's and give their mode of action. Write the synthesis of phenylbutazone (6,6)

Q5

a) What are centrally acting anti tussive drugs. Discuss their chemistry in detail
b) Give the structure, synthesis and uses of Meperidine (6,6)

UNIT 3

Q6

a) Give the mode of action and draw the structure of any two drugs belonging to the class
i) antidepressants ii) Benzoidiazepines
b) Classify sedatives and hypnotics with examples (6,6)

Q7 Give the classification, mode of action and Structure-Activity Relationship of barbiturates (12)

UNIT 4

Q8

a) Discuss conceptual pharmacokinetics in drug designing
b) Give the structure, synthesis and uses of Isoprenaline (6,6)

Q9

a) How is combinatorial chemistry approach used in drug designing?
b) Write short note on Adrenaline and Salbutanol (6,6)

x—x—x