

Date
19/11/2012

Final year B pharm sem VIII Nov 2012
pharmaceutical and medicinal chemistry IV

AGJ-2nd half (f)-12-45

Con. 8060-12.

(REVISED COURSE)

CN-8195

(2 Hours)

[Total Marks : 40

N.B. : (1) Question No. 1 is compulsory.

(2) Attempt any four more questions from remaining six.

1. (a) Write the structure and therapeutic use of the drugs with following description – 4
 - (i) An iminostilbene
 - (ii) A drug of choice for status Epilepticus
 - (iii) A barbiturate with intermediate duration of action (3 ~ 6 hrs.)
 - (iv) NSAID with furan nucleus.
- (b) Write the structure and therapeutic use of the following :- 4
 - (i) trans-2- phenylcyclopropylamine
 - (ii) 6-Methoxy- α -methyl-2-naphthalene acetic acid
 - (iii) 7-Chloro- 1, 3- dihydro -1-methyl-5-phenyl-2H-benzodiazepine-2-one
 - (iv) 6 - (Dimethylamino) - 4, 4- diphenyl- 3-heptanone.
2. (a) Explain following statement and support your answer with relevant structure. 6
 - (i) Replacement of both hydrogen atoms at 4th position of phenylbutazone by alkyl group leads to loss of activity.
 - (ii) Cheese should be avoided by patients undergoing treatment with MAO-inhibitors.
 - (iii) N-allylnor oxymorphone hydrochloride, is the agent of choice for treating narcotic overdose.
- (b) Write the structure of any four phase-I metabolites of phenytoin. 2
3. (a) What are various classes of antipsychotic agents. Classify following drugs into these 4
classes : thioridazine, fluphenazine, loxapine, clozapine.
- (b) Parallel changes in the structure of rigid and non-rigid opioids do not produce parallel 4
changes in the activity. Explain using receptor binding concept.
4. (a) Outline the synthesis of following drugs, specifying reagents and reaction conditions. 6
(any two) :-
 - (i) Diclofenac
 - (ii) Glutethimide
 - (iii) Methadone.
- (b) Write the structures of any two metabolites of carbamazepine and state whether they 2
are active or inactive.

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5. (a) Discuss the SAR of tricyclic anti-depressants by giving suitable examples with structures. 4
(b) Write a note on selective COX-II inhibitors. 4
6. (a) Write the mode of action of following drugs with their structure — 6
(i) Amantadine
(ii) Meprobamate
(iii) Dextropropoxyphene.
(b) Give the structure, name and mode of action of **one** oxazolidinedione class of anticonvulsant agent. 2
7. (a) Give the names and structures of any **two** narcotic antagonists along with their use. 2
(b) Explain the relationship of pKa and biological activity in case of barbiturates. 2
(c) Write a note on any **one** of the following :- 4
(i) Drug treatment for Gout
(ii) Anti Parkinson's agents.