

DEPARTMENT OF MEDICINAL CHEMISTRY
SCHOOL OF PHARMACY

Advanced Medicinal Chemistry
Dr. Umesh R. Desai

MEDC 603
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STUDENT NAME	HONOR PLEDGE
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Instructions: Answer all questions.

1. An equilibrium exists between reactants **A** and **B** to give products **C** and **D**. Write an expression of equilibrium dissociation constant K_D in terms of the concentrations of reactants and products. (4 pts)

2. In one sentence, define K_i in terms of the concentration of inhibitor $[I]_0$. (4 pts)

3. Name three drugs that are inhibitors of an enzyme. Name the corresponding enzymes too. (6 pts)

Drug	Enzyme that it inhibits
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_____	_____
_____	_____
_____	_____

4. In one sentence, define combinatorial chemistry. (4 pts)

5. Describe in a few sentences, a simple biological assay (bioassay) that aids the identification of a lead compound. You may make use of a figure or an equation to explain your point. (6 pts)

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6. Name three drugs that are either natural products or natural product derivatives. Identify their clinical usage. (6 pts)

<u>Drug</u>	<u>Used in the Clinic As</u>
_____	_____
_____	_____
_____	_____

7. The principle reason why natural products or derivatives of natural products constitute a major proportion of all known drugs even today is their _____ (4 pts)

- a) long duration of action
- b) ease of preparation
- c) structural diversity
- d) well-known age-old potency
- e) none of the above