

# Chemistry in everyday life (Module -1)

## Work sheet

Created By: - Sangeeta Sohni, PGT (ss) Chemistry,  
AECS – 4 Mumbai

### 1. Subjective questions- (short answer type):

- Write the uses of medicines.
- Where are receptors located?
- Distinguish between drugs and medicines
- Define the terms-i) drug target ii) Antacids iii) Antihistamines
- Name two macromolecules used as drug targets
- What do you understand by the term allosteric site
- Name the different type of bonds involved in holding substrate to active site of the enzyme.

### 2. Multiple choice questions: (single correct option)

- Which among the following is not an antihistamine drug:  
i) Terfenadine ii) Bithionol iii) Seladane iv) Dimetapp
- The chemical name of Benadryl is:  
i) Chlorpheniramine ii) Brompheniramine  
iii) Diphenhydramine iv) Promethazine
- Drug that binds to receptor site and inhibits its natural function:  
i) Antagonists ii) Chemical messengers iii) Agonists iv) Receptor

### 3. Multiple choice questions: (more than one correct option)

- Which among the following is/are common antacid/s:  
i)  $Mg(OH)_2$  ii)  $Al(HCO_3)_3$  iii)  $AlPO_4$  iv)  $NaOH$
- Which among the following are the functions of histamine:  
i) Interfere with natural action ii) Helps in increasing alkalinity in stomach  
iii) Vasodilator iv) Nasal congestion

### 4. Fill in the blanks:

- The drug cimetidine is used to stimulate the secretion of \_\_\_\_\_ & \_\_\_\_\_
- Zantac is commercial name of \_\_\_\_\_
- The substance which lowers the acidity of the stomach is called \_\_\_\_\_

### 5. Reason assertion type:

In the question given below two statements are given.

One is labelled as assertion(A) and the other is reason(R). Read question carefully and mark correct choice I, ii, iii & iv according to given instructions

- If both A & R are correct and R is explanation of A
  - If both A & R are correct and R is not the explanation of A
  - If A is correct & R is wrong
  - If A is wrong & R is correct.
- A-Metal hydroxides are better alternatives to carbonates and bicarbonates  
R-They are insoluble and don't increase pH above neutrality.
  - A-Ranitidine is used to treat hyperacidity  
R- Ranitidine is used to neutralise excess acid in stomach

## ANSWER KEY

## ii. Subjective questions- (short answer type):

- h) Write the uses of medicines.
- i) Where are receptors located?
- j) Distinguish between drugs and medicines
- k) Define the terms-i) drug target ii) Antacids iii) Antihistamines
- l) Name two macromolecules used as drug targets
- m) What do you understand by the term allosteric site
- n) Name the different type of bonds involved in holding substrate to active site of the enzyme.

## 2. Multiple choice questions: (single correct option)

- b) Which among the following is not an antihistamine drug:  
i) Terfenadine ii) Bithionol iii) Seladane iv) Dimetapp                      ans- ii

## b) The chemical name of Benadryl is:

- i) Chlorpheniramine ii) Brompheniramine                      ans- iii  
iii) Diphenhydramine iv) Promethazine

## d) Drug that binds to receptor site and inhibits its natural function:

- i) Antagonists ii) Chemical messengers iii) Agonists iv) Receptor              ans: i

## 3. Multiple choice questions: (more than one correct option)

## a) Which among the following is/are common antacid/s:

- i)  $Mg(OH)_2$  ii)  $Al(HCO_3)_3$  iii)  $AlPO_4$  iv)  $NaOH$                       ans- I & iii

## b) Which among the following are the functions of histamine:

- i) Interfere with natural action ii) Helps in increasing alkalinity in stomach  
iii) Vasodilator iv) Nasal congestion                      ans- I & ii

solution- i- it is function of antihistamine, antacids increase alkalinity

## 4. Fill in the blanks:

- i) The drug cimetidine is used to stimulate the secretion of \_\_\_\_\_ & \_\_\_\_\_

ans- pepsin and HCl

- ii) Zantac is commercial name of \_\_\_\_\_

ans- Ranitidine

- iii) The substance which lowers the acidity of the stomach is called \_\_\_\_\_ ans- antacid

## 5. Reason assertion type:

In the question given below two statements are given.

One is labelled as assertion(A) and the other is reason(R). Read question carefully and mark correct choice I, ii, iii & iv according to given instructions

- i) If both A & R are correct and R is explanation of A
- ii) If both A & R are correct and R is not the explanation of A
- iii) If A is correct & R is wrong
- iv) If A is wrong & R is correct.

## c) A-Metal hydroxides are better alternatives to carbonates and bicarbonates

R-They are insoluble and don't increase pH above neutrality.      Ans- i

## d) A-Ranitidine is used to treat hyperacidity

R- Ranitidine is used to neutralise excess acid in stomach      ans- iii)

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### References: -

Chemistry NCERT textbook part II Class XII

Comprehensive Chemistry Vol=II Class XII