

C.U.SHAH UNIVERSITY

Summer Examination-2019

Subject Name: Pharmaceutical Chemistry – IV (Medicinal Chemistry - I)

Subject Code: 4PS04PCH4

Branch: B. Pharm

Semester: 4

Date: 24/04/2019

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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| Q-1 | Define the following terms: | (14) |
| | a) Solubility | (1) |
| | b) Redox potential | (1) |
| | c) Partition coefficient | (1) |
| | d) Receptor | (1) |
| | e) Prodrugs | (1) |
| | f) Bioisosterism | (1) |
| | g) Histamines | (1) |
| | h) Ionization | (1) |
| | i) Laxatives | (1) |
| | j) Prokinetics | (1) |
| | k) Complexation | (1) |
| | l) Antiemetics | (1) |
| | m) Antacids | (1) |
| | n) Antispasmodics | (1) |

Attempt any four questions from Q-2 to Q-8

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| Q-2 | | (14) |
| | a Explain Phase I and Phase II Drug Metabolism in Brief. | (7) |
| | b Give a brief note on biological and environmental factors affecting drug Metabolism. | (7) |
| Q-3 | | (14) |
| | a Explain various physico-chemical properties of drug molecules influencing biological activities. | (7) |
| | b Explain in detail protein binding of drug molecules. | (7) |
| Q-4 | | (14) |
| | a Define antisecretory agents. Classify and write mechanism of action of antisecretory agent's along with synthesis of Ranitidine. | (7) |
| | b Define and classify various classes of drugs acting on G.I. Tract and write synthesis | (7) |



of omeprazole and its use.

- Q-5** (14)
a What are Diagnostic agents, Give the importance of Radiopharmaceuticals. (7)
b Write a note on diphenoxylate and diatrizoic acid (7)
- Q-6** (14)
a Write down the MOA of antihistamines, Classify Antihistaminics with examples in brief. (7)
b Give the synthesis of diphenhydramine, and chlorcyclizine, (7)
- Q-7** (14)
a Write various classes of drugs that act on respiratory tract and explain about expectorant and antitussive agents. (7)
b Explain the mechanism of action of proton pump inhibitors. (7)
- Q-8** (14)
a Write various anti-asthmatic agents with examples and their mechanism of action. (7)
b Write a note on Autocoids. (7)

