

PARUL UNIVERSITY
FACULTY OF PHARMACY

B. Pharm. Summer 2018 - 19 Examination

Semester: 4

Subject Code: BP402T

Subject Name: Medicinal Chemistry I - Theory

Date: 03/04/2019

Time: 02:00 pm to 05:00 pm

Total Marks: 75

Instructions:

1. Figures to the right indicate maximum marks.
2. Make suitable assumptions wherever necessary.

Q.1 Multiple Choice Questions (MCQs) (1 Mark Each)**(20)**

1. Extra –pyramidal effects are associated with the following drug:

a) Haloperidol	b) Chlorprothixene
c) Loxapine	d) Oxypertine
2. Drug which inhibit intestinal motility and act as an antidiarrhoeal agent:

a) Pentazocine	b) Acetaminophen
c) Diphenoxylate	d) Naproxen
3. All of the following are Hydantoin derivatives **EXCEPT**:

a) Phenytoin	b) Primidone
c) Mephenytoin	d) Ethotoin
4. Phenytoin is the drug of choice for:

a) Grand mal seizures	b) Petit mal seizures
c) Partial seizures	d) None of the above
5. One of the following is not a triazolobenzodiazepine derivative :

a) Alprazolam	b) Triazolam
c) Midazolam	d) Estazolam
6. The ratio of conc. of drug in oil phase and in water phase is known as :

a) Ionization	b) Partition coefficient
c) Solubility	d) Iso-sterism
7. In Benzodiazepines structure the following positions should not be substituted for activity:

a) 4,6,8	b) 5,8,9
c) 6,8,9	d) 7,8,9
8. $RH + X + NADPH + H^+ \rightarrow ROH + Y + NADP^+$, find X and Y in this reaction:

a) H_2O, O_2	b) OH, H_2O
c) O_2, H_2O	d) H_2O, OH
9. Butyrophenone derivative of Antipsychotic drug:

a) Loxapine	b) Pimozide
c) Haloperidol	d) Thioridazine
10. Dissociative anesthetics is:

a) Ketamine	b) Methohexital
c) Halothane	d) Enflurane
11. Carbamate ester of choline is:

a) Acetyl choline	b) Bethacholine
c) Carbachol	d) Methacholine
12. All of the following are the example of Narcotic antagonists **EXCEPT**:

a) Nalorphine	b) Levallorphan
c) Naloxone	d) Pentazocine
13. Acetyl choline is biosynthesized from

a) L-cysteine	b) L-serine
c) L-codeine	d) L-cholic acid
14. Starting material for general method of preparation for barbiturates:

a) Dimethyl malonate	b) Diethyl malonate
c) Diethyl chloride	d) Dimethyl chloride

15. Acetyl salicylic acid is:
- | | |
|---------------|--------------|
| a)Phenacetin | b)Aspirin |
| c)Paracetamol | d)Ketoprofen |
16. Antidote for atropine poisoning:
- | | |
|-----------------|------------------|
| a)Physostigmine | b)Cyclopentolate |
| c)Dicyclomine | d)Glycopyrrolate |
17. Following are the examples of Phenyl Piperidines derivatives **EXCEPT**:
- | | |
|-----------------|------------------|
| a) Fentanyl | b) Diphenoxylate |
| c) Isomethadone | d) Loperamide |
18. 4-chloro aniline is the starting material for synthesis of :
- | | |
|---------------|----------------------|
| a) Diazepam | b) Phenytoin |
| c) Alprazolam | d) None of the above |
19. UDPGA is the active intermediate in the following reaction:
- | | |
|----------------|-------------------|
| a) Sulphation | b)Glucuronidation |
| c) Acetylation | d) Methylation |
20. Which one of the following drug belong to short acting barbiturates?
- | | |
|-----------------|----------------|
| a)Pentobarbital | b)Talbutal |
| c)Amobarbital | d)Secobarbital |

Q.2 Long Answers (any 2 out of 3) (10 Mark Each)

(20)

1. Enumerate the physicochemical properties affecting biological activity. Explain ionization & bioisosterism.
2. Classify Sympathomimetic agents. Write down the synthesis & use of Salbutamol.
3. Classify Sedative & hypnotics. Write a note on SAR and mechanism of action of Barbiturates.

Q.3 Short Answers (any 7 out of 9) (5 Mark Each)

(35)

1. Write down the classification of Adrenergic antagonists.
2. Explain the Role of cytochrome p-450 in oxidative reaction.
3. Write down the synthesis & use of following drugs(Any two):
a)Dicyclomine b)Ethosuximide c)Propranolol
4. Write down the moa & SAR of phenothiazines.
5. Classify Anti-cholinergic agents with examples.
6. Classify Narcotic drugs & antagonists.
7. Give the synthesis & use of Ketamine.
8. Write down the synthesis & mechanism of action of Phenytoin.
9. Classify Anti-inflammatory agents with their mechanism of action.