

B. PHARM.
FOURTH SEMESTER
MEDICINAL CHEMISTRY-I
BP402T [SPECIAL REPEAT]
[USE OMR SHEET FOR OBJECTIVE PART]

SET
A

Duration : 3 hrs.

Full Marks : 75

[PART-A: Objective]

Time : 30 min.

Marks : 20

Choose the correct answer from the following:

1×20=20

- Which one of the following is act as a Inhalation anesthetics
a. Halothane
b. Methohexital sodium
c. Ketamine hydrochloride
d. Ketamine hydrochloride
- Which one of the following is act as a anticonvulsant drug
a. Phenytoin
b. Sulpiride
c. Molindone hydrochloride
d. Alprazolam
- Which one of the following is act as a dissociative-anesthetics
a. Halothane
b. Methohexital sodium
c. Ketamine hydrochloride
d. Isoflurane
- Which one of the following antipsychotics is a flurobuterophenone derivatives
a. Sulpiride
b. Haloperidol
c. Haloperidol
d. Molindone hydrochloride
- Which one of the following is triazoloderivatives
a. Barbitol
b. Alprazolam
c. Diazepam
d. Diazepam
- Which one of the following is act as a selective COX-II inhibitor
a. Celecoxib
b. Rofecoxib
c. Valdecoxib
d. All of these
- Which hetero atoms are present in phenothiazine structure
a. O & N
b. O & S
c. N & P
d. S & N
- Which one of the following phenothiazines consists of Ethyl piperidyl side chain
a. Promazine
b. Prochlorperazine
c. Thioridazine
d. Trifluperazine
- Which one of the following phenothiazines consists propyl piperazine ring.
a. Thioridazine
b. Promazine
c. Prochlorperazine
d. Chlorpromazine
- Which one of the following is-act as a housekeeping enzyme
a. COX-I
b. COX-II
c. Both a and b
d. NSAIDs

11. Which one of the following is act as a Sympathomimetic agents
 - a. Dopamine
 - b. Tolazoline
 - c. Propranolol
 - d. Carbachol
12. Which one of the following is act as a alpha blocker
 - a. Dopamine
 - b. Tolazoline
 - c. Propranolol
 - d. Carbachol
13. Which one of the following is act as a Beta blocker
 - a. Dicyclomine hydrochloride
 - b. Tolazoline
 - c. Propranolol
 - d. Salbutamol
14. Out of the following which one consists the highest electronegativity
 - a. F
 - b. O
 - c. N
 - d. C
15. Which one of the following is act as a Parasympathomimetic agents
 - a. Carbachol
 - b. Ipratropium bromide
 - c. Dicyclomine hydrochloride
 - d. All of the above
16. What is the full form of EDTA
 - a. Ethylene Diamine Tetra Acetic Acid
 - b. Ethylene Diamine Tri Acetic Acid
 - c. Ethane Diamine Tetra Acetic Acid
 - d. Ethylene Diamine Tetra Acetate
17. In case of barbiturates, If the sum of the carbon atoms of both the substituents at c-5 counts between 5-7 then what is the outcome
 - a. Rapid onset and shortest duration
 - b. Intermediate duration of action
 - c. Slowest onset and longest duration
 - d. Rapid onset and longest duration.
18. In case of benzodiazepine, to get the maximum potency which positions should be unsubstituted
 - a. 1,2,3
 - b. 3,5,7
 - c. 6,8,9
 - d. 7,6,8
19. Which one of the following pairs is act as a Isosteres.
 - a. CO₂ & N₂O
 - b. H & P
 - c. H₂O & P
 - d. C & N
20. Which one of the following is act as a Cholinergic blocking agents
 - a. Dicyclomine hydrochloride
 - b. Tolazoline
 - c. Neostigmine bromide
 - d. Carbachol

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(PART-B : Descriptive)

Time : 2 hrs. 30 min.

Marks : 35

[Answer any seven (7) questions]

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| 1. Write the synthesis of Carbamazepine | 5 |
| 2. Write the synthesis of Phenytoin | 5 |
| 3. Write the synthesis of Ethosuximide | 5 |
| 4. Write the synthesis of Halothane and Methohexital sodium. | 3+2=5 |
| 5. Write the synthesis of Chlorpromazine hydrochloride | 5 |
| 6. Write the synthesis of Ibuprofen? | 5 |
| 7. Write the SAR of barbiturates. | 5 |
| 8. Write the synthesis of Phenylephrine and Salbutamol. | 2+3=5 |
| 9. Write the synthesis of Propranolol and Tolazoline. | 3+2=5 |

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PART-C: Long type questions

[Answer any two (2) questions]

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| 1. | i) Write the SAR of morphine analogue | 10 |
| | ii) Write the synthesis of Ketamine hydrochloride. | |
| 2. | Write the synthesis of (<i>Any two</i>) | 10 |
| | a. Fentanyl citrate | |
| | b. Methadone hydrochloride | |
| | c. Diazepam | |
| 3. | a. Write the SAR of Phenothiazine | 10 |
| | b. Write the SAR of benzodiazepines. | |

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