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BP 501 T

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III/IV B. PHARMACY DEGREE EXAMINATIONS, JUNE / JULY -2022

Fifth Semester

MEDICINAL CHEMISTRY II - THEORY

Time : **Three Hours**

Maximum : **75** Marks

SECTION - A

Answer any FIVE Questions. **5x5 = 25 M**

1. Write a note on histamine receptors and their distribution in the human body. Classify Antihistamines and write the synthesis of Triprolidine hydrochloride.
2. Classify Antihypertensive agents with structures and give special emphasis on Calcium channel blockers.
3. Write the structure, IUPAC name, mode of action and medicinal uses of :
   a) Quinidine sulphate.
   b) Clofibrate.
   c) Lovastatin.
4. Give an account on
   a) Stereochemistry of steroids.
   b) Oral contraceptives.
5. Discuss the SAR and mode of action of local anesthetics and sketch out the structures of benzoic acid derivatives used as local anesthetics.
6. Write a detailed note on Insulin and its preparations.
7. Give the synthesis, MOA and clinical benefits of
   a) Chlorthiazide.
   b) Warfarin.

SECTION - B

Answer any FIVE Questions. **5x10 = 50 M**

8. Write a note on plant products used as antineoplastic agents.
9. Give the structure, MOA, synthesis and uses of Isosorbide dinitrate.

P.T.O.

10. Classify Diuretics and outline the importance of Potassium Sparing diuretics in hypokalemia
11. Write a note on drugs used in congestive heart failure.
12. Write the synthesis and uses of
    a) Benzocaine.
    b) Tolbutamide.
13. Sketch out the structures of
    a) Prednisolone.
    b) Testosterone.
    c) Dexamethasone.
    d) Progesterone.
    e) Diethylstilbestrol.
14. Write the structures and uses of
    a) Propylthiouracil.
    b) L-Thyroxine.
    c) Ranitidine.
    d) Pantoprazole.

BP 501 T

Total No. of Questions : 14] [Total No.of Pages : 01

III/IV B. PHARMACY (REGULAR) DEGREE EXAMINATIONS, FEBRUARY- 2022

Fifth Semester

MEDICINAL CHEMISTRY II - THEORY

Time : **Three Hours** Maximum : 75 Marks

SECTION - A

Answer any FIVE Questions. **5x10 = 50 M**

1. Classify Antihistaminic agents with structures of each class. Give synthesis and MOA of Promethazine hydrochloride.
2. Explain in detail about Oral contraceptive agents.
3. Classify Anti-neoplastic agents. Discuss MOA and uses of Antimetabolites.
4. Write a note on Coagulant & Anticoagulants and outline the synthesis of Warfarin.
5. Give classification of Diuretics with examples. Write SAR of Thiazide diuretics.
6. Give reasons for the following :
   a) Some local anesthetics are used as Antiarrythmic drugs.
   b) Prevention of bile salt reabsorption helps reduce blood cholesterol level.
7. Write an exhaustic note on Antidiabetic agents.

SECTION - B

Answer any FIVE Questions. **5x5 = 25 M**

8. Outline the synthesis and mode of action of Cimetidine.
9. Add a short note on H1-antagonists.
10. Explain briefly on Insulin and its preparations.
11. Write short notes on Anti-hyperlipidemic agents.
12. Outline the synthesis and MOA of Furosemide.
13. Add a short note on Sex hormones.
14. Write SAR of Local anesthetics.

BP 501 T

Total No. of Questions :14]

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III/IV B.PHARMACY (Regular) DEGREE EXAMINATIONS, JANUARY-2020

Fifth Semester

B.PHARMACY

MEDICINAL CHEMISTRY-II-Theory

Time: Three Hours **Maximum marks:75**

SECTION-A

Answer any FIVE Questions **5X10=50M**

1. Classify H1 antihistamines with examples. Write a note on SAR of Aminoalkylethers and outline synthesis of Diphenhydramine hydrochloride.
2. Given an account on different antimetabolites which acts as anti-neoplastic agents with structures and outline the synthesis of Methotrenate.
3. Define and classify Diuretics with examples. Explain SAR and Mechanism of action of Thiazide diuretics.
4. Classify Anti-hypertensive agents and add a note on mode of action and SAR of Angiotensin converting Enzyme Inhibitors.
5. a) Define and classify Antihyperlipidemics. Add a note on mode of action of statins as antihyperlipidemics.
   b) Outline the synthesis and uses of Warfarin.
6. a) Discuss the nomenclature and stereochemistry of steroids.
   b) Write a brief note on Glucocorticoids with examples and their structures.
7. Discuss the Mechanism of action and SAR of local anaesthetics. Outline the synthesis of Procaine.

SECTION-B

Answer any FIVE Questions **5X5=25M**

8. Write the structure, Mechanism of action and uses of Lansoprazole.

P.T.O

9. Give the synthesis and uses of Isosorbide dinitrite.
10. Write a brief note on Potassium sparing diuretics.
11. Write the structures of drugs used in congestive heart failure.
12. Give a brief note on oral contraceptives
13. Write the structrue and uses of

a) Propyl thiouracil b) Amlodipine c) Mechlorethamine

14. Classify anti-diabetic drugs with examples and their structures.

Total No. of Questions :18]

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III/IV B.PHARMACY (Supply) DEGREE EXAMINATIONS, APRIL/MAY-2019

5th Semester

B.PHARMACY

PHARMACEUTICAL CHEMISTRY-IV (MEDICINAL-II)

Time: Three Hours **Maximum marks:70**

SECTION-A

Answer any FOUR Questions **4X10=40M**

1. What is the significance of rational drug design? Write in detail on principles involved in the development of QSAR models.
2. Write short notes on
   a) Selective serotonine receptor inhibitors
   b) Volatile anaesthetics
3. Differentiate α and β adrenergic receptors. Write in detail on MOA. SAR and clinical applications of β_1 blockers.
4. Write the IUPAC name, MOA, synthesis and uses of
   a) Fluoxetin b) Glipizide
5. a) With a neat sketch explain the pain pathway and identify drug targets.
   b) Write short notes on phenylpiperazine opoid analgesics.
6. Write in brief on
   a) Carbonic anhydrase inhibitors
   b) H_2-blockers

SECTION-B

Answer any TEN Questions **10X3=30M**

7. Write short notes on Mayer Overton theory.
8. Write in brief on the significance of logP in the QSAR analysis.
9. Outline the synthesis of Nalorphine.

P.T.O

10. Write SAR of amide class of local anaesthetic agents.
11. Write short notes on glucosidase inhibitors as antidiabetic agents.
12. Describe the biosynthesis of adrenaline.
13. Write short notes on neuromuscular blockers.
14. Explain how local anaesthetic agents are used as antiarrythmic agents?
15. Enumerate atypical antipsychotic agents.
16. Write SAR of arylacetic acid NSAIDS.
17. Discuss the MOA and clinical uses of alprazolam.
18. Write short notes on metabolism of polyhalogenated anaesthetics and its toxic effects.

Total No. of Questions :18]

B.PH 501

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III/IV B.PHARMACY (Regular) DEGREE EXAMINATIONS, NOV-2018

5th Semester

B.PHARMACY

PHARMACEUTICAL CHEMISTRY-IV (MEDICINAL-II)

Time: Three Hours **Maximum marks:70**

SECTION-A

Answer any FOUR Questions **4X10=40M**

1. Write short notes on
   a) Combinatorial chemistry b) Hansch QSAR Analysis
2. What are local anesthetic agents? Classify them with examples. Write MOA, SAR and uses of amide local anesthetics. Outline the synthesis of procaine.
3. Write short notes on
   a) Antianxiety agents b) Atypical antipsychotic agents
4. Outline the distribution of adrenergic receptors. Discuss their role in the management of blood pressure. Write MOA, SAR and uses of alfa adrenergic blockers. Outline the synthesis of atenelol.
5. Write structure, IUPAC name, MOA and uses of
   a) Ketamine b) glipizide c) Chlorthiazide
6. Explain the MOA, SAR and uses of following
   a) Vasodilators b) 4-phenylpiperidine analgesics

SECTION-B

Answer any TEN Questions **10X3=30M**

7. Write advantages of computare aided drug design over conventional methods.
8. Write in brief on biosynthesis of acetylcholine
9. Write in brief on ester group local anesthetic drugs.
10. Write short notes on PPAR-γ inhibitors.
11. Write in brief on Mayer-Overton theory.

P.T.O

12. Write structure, synthesis and use of Nalorphine

13. Discuss the SAR and uses of piroxicam.

14. Write in brief on HMG-CoA reductase inhibitors.

15. Write the structure, MOA and synthesis of ethacrynic acid

16. What are diagnostic agents? Write the synthesis and uses of fluorescene.

17. Write in brief on antithyroid drugs.

18. Write short notes on GABA modulators as anti-epileptic agents.

Total No. of Questions :18]

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III/IV B.PHARMACY (Supply) DEGREE EXAMINATIONS, April/May-2018

Fifth Semester

B.PHARMACY

PHARMACEUTICAL CHEMISTRY-IV

(MEDICINAL-II)

Time: Three Hours **Maximum marks:70**

SECTION-A

Answer any FOUR Questions **4X10=40M**

1. What is computer aided drug design. Enumerate various drug approaches. Write in detail on ligand based drug design method.
2. Write short notes on
   a) SSRIs b) Gaseous anaesthetics
3. Classify adrenergic receptors and mention their functions. Write in detail on beta adrenergic blockers. Outline the synthesis and clinical uses of propranolol.
4. Write in brief on
   a) HMG Co-A inhibitors b) Calcium channel blockers
5. What are opoid analgesics? Classify them with examples. Explain the MOA and SAR of phenylpiperidine derivatives. Outline the synthesis and clinical uses of meperidine.
6. Classify antihistaminic drugs with examples. Write in detail on antihistaminic drugs in the clinical management of peptic ulcer. Outline the synthesis of cimetidine.

SECTION-B

Answer any TEN Questions **10X3=30M**

7. Outline the synthesis, MOA, important metabolites and uses of nitrazepam.
8. Write the structure, MOA and clinical uses of hexobarbital.
9. Write SAR of benzodiazepines.
10. Outline the synthesis, metabolism, clinical applications and important side effects of proprazolol.
11. Give a brief account on diagnostic agents.
12. Classify diuretics. Write the structure and uses of furosemide.
13. Write a short note on antitussive agents?
14. Write briefly on the role of PPAR γ inhibitors as antidiabetic agents.

P.T.O

15. Give an account on antihyperlipidemic agents.

16. Write structure, IUPAC name, MOA and important metabolites of methyldopa and naphazoline.

17. Write synthesis of (a) Paracetamol b) fluoxetine

18. Write briefly on structure based drug design.

Total No. of Questions :18] **B.PH 501**

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III/IV B.PHARMACY DEGREE EXAMINATIONS, NOVEMBER-2017

Fifth Semester

B.PHARMACY

PHARMACEUTICAL CHEMISTRY-IV (MEDICINAL-II)

Time: Three Hours **Maximum marks:70**

SECTION-A

Answer any FOUR Questions **4X10=40M**

1. What is combinatorial chemistry? Write briefly on the principles involved in combinatorial chemistry and its application in new drug discovery.
2. Classify antipsychotics with examples. Write in detail on phenothiazines.
3. Give a detailed classification of local anesthetic agents. Explain the role of pKa of the drug.
4. With a neat sketch explain the distribution and functions of cholinergic receptors. Write a short note on neuromuscular blockers.
5. Classify hypoglycemic agents. Outline the synthesis, metabolism and clinical uses of phenformin and chlorpropamide.
6. Explain the mechanism involved in inflammation and identify various molecular targets for anti-inflammatory activity. Explain the SAR and clinical applications of arylacetic acid derivatives.

SECTION-B

Answer any TEN Questions **10X3=30M**

7. Write in brief on parallel synthesis.
8. Write the structure, MOA and clinical uses of ketamine and thiopental.
9. Write SAR of amide group of local anesthetic agents.
10. Outline the synthesis, metabolism, clinical applications and important side effects of diazepam.
11. Give a brief account on antiepileptic agents.
12. Explain the structure, MOA, uses and toxicity of atropine.
13. Write briefly on the role of alpha-glucosidase inhibitors as antidiabetic agents.
14. Give an account on loop diuretics.
15. What are diagnostic agents? Write a short note on fluorscein.
16. Write structure, IUPAC name, MOA and important metabolites of ibuprofen and diphenhydramine.
17. Write MOA and synthesis of glipizide.
18. Explain the dopamine hypotheis involved in psychosis.

Total No. of Questions :18]

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III/IV B.PHARMACY DEGREE EXAMINATIONS, APRIL-2017

5th Semester

PHARMACEUTICAL CHEMISTRY-IV (MEDICINAL-II)

Time: Three Hours

Maximum marks:70

SECTION-A

Answer any FOUR questions. (4 x 10=40 M)

1. a) Briefly write on steps involved in drug design process.
   b) Discuss the principle and applications of combinatorial synthesis
2. Write short notes on
   a) SAR of barbiturats
   b) Phenothiazine antipsychotics
3. Classify cholinergic agonists. Explain the SAR,MOA,synthesis and use of methacholine.
4. Write the IUPAC name, MOA, synthesis and uses of
   a) Propranolol b) Cetrizine
5. a) With a neat sketch explain the SAR of morphine.
   b) Write short notes on COX inhibitors.
6. Write in brief on
   a) HMG CoA inhibitors b) PPARy inhibitors

SECTION-B

Answer any TEN questions. (10 x 3=30 M)

7. Write in brief on applications of computer in drug design.
8. Write the structure, MOA and clinical uses of ketamine.
9. Outline the synthesis of phenytoin.
10. Write the structure and metabolism of paracetamol.
11. Write short notes on antithyroid drugs.
12. Describe the biosynthesis of dopamine.
13. Write short notes on diagnostic agents used for kidney function.
14. Explain how ACE inhibitors are used as antihypertensive agents?
15. Write the structure. MOA and use of fentanyl citrate.
16. Write in brief on centrallv acting antihypertensive agents.
17. Discuss the MOA and clinical uses of acarbose.
18. Write short notes on metabolism of glycerol trinitrate.

Total No. of Questions :18]

B.Ph 501

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III/IV B.PHARMACY DEGREE EXAMINATIONS, NOVEMBER-2016

(5th Semester)

B.PHARMACY

PHARMACEUTICAL CHEMISTRY-IV (MEDICINAL-II)

Time: Three Hours **Maximum marks:70**

SECTION-A

Answer any FOUR questions. **(4 x 10=40 M)**

1. Explain in brief basic concepts of computer aided drug design and combinatorial synthesis?
2. Define and classify anti-psychotic agents and write synthesis and uses of any three drugs.
3. Describe the biosynthetic pathway for catecholamine neuro transmitters. Classify adrenergic agents and explain how the variation in structures influences their biological activity?
4. Classify the cardiovascular agents? Write the mechanism of action calcium channel blockers and synthesis of any two drugs?
5. Write notes on Diuretics. Classify them and write SAR and MOA of thiazides?
6. Write a brief note on COX-2 inhibitors? Write the synthesis, metabolism and therapeutic uses of diclofenac and piroxicam?

SECTION-B

Answer any TEN questions. **(10 x 3=30 M)**

7. Write synthesis and uses of any one general anaesthetic drug?
8. What are the ideal requirements for local anaesthetics?
9. Write the synthesis of diazepam?
10. Write the synthesis and uses of isocarboxizide?
11. Write a note on anti-anxiety agents?
12. Write a note on antihyperlipidemic agents?
13. Write a brief account on antithyroid drugs.
14. Write about PPAR γ inhibitors?
15. Write the synthesis and uses of noscapine?
16. Write the SAR of antihistamines?
17. Write the synthesis of iopanoic acid?
18. Write a note on study of H1 and H2 antagonists.

Total No. of Questions :18]

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III/IV B.PHARMACY (Supply) DEGREE EXAMINATIONS, MAY-2016

Fifth Semester

PHARMACEUTICAL CHEMISTRY-IV

(MEDICINAL-II)

Time: Three Hours

Maximum marks:70

SECTION-A

Answer any FOUR questions. (4 x 10=40 M)

1. Write briefly about QSAR studies and different drug design approaches.
2. Classify anticonvulsants with examples. Write the SAR, side effects of Hydantoins. Give the synthesis of phenytoin.
3. Classify antipsychotics with examples. Write the SAR of phenothiazines and give the synthesis of chlorpromazine.
4. Classify antidepressants. Write the SAR of Tricyclic antidepressants and synthesis of Fluoxetin.
5. Write an explanatory notes on (a) Adrenergic drugs and their uses (b) Anti cholinergic agents.
6. Explain why loop diuretics are more efficacious than others. Give the MOA of carbonic anhydrase inhibitors. Outline the synthesis of chlorthiazide.

SECTION-B

Answer any TEN questions. (10 x 3=30 M)

7. Write the SAR of Barbiturates.
8. Write the ideal requirements of local anaesthetics.
9. Explain how acetylcholine is exhibiting muscarnic and nicotinic actions.
10. Write about insulin preparations.
11. Write a note on antitussive agents.
12. Give the synthesis of paracetamol.
13. Write briefly about COX-2 inhibitors
14. Write briefly about ACE inhibitors.
15. Write the mechanism of action of fibric acid derivatives.
16. Write the synthesis of ketamine Hcl
17. Write the therapeutic uses of imp: diagnostic agents.
18. Write the SAR of opioid analgesics.