PAPER ID: 310007

Subject Code: BP501T

Roll No: | | | | | | | | | | |

B PHARM
(SEM-V) THEORY EXAMINATION 2020-21
MEDICINAL CHEMISTRY-II

Time: 3 Hours *Total Marks: 75*

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Define antihistaminic agents with suitable examples.
b.	Draw chemical structure of rabeprazole.
c.	Write mechanism of action of antimetabolite.
d.	Define cotransporter and symporter.
e.	Write the synthesis and uses of methyldopa.
f.	Classify Class I antiarrhythmic agents with example.
g.	Enlist the name of drug used in congestive heart failure.
h.	Draw chemical structure of Sildenafil and Tadalafil.
i.	Discuss the mechanism of action of Thiazolidinediones.
j.	Write the synthesis of Benzocaine and Procaine.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Classify antihistaminic agents with their chemical structure. Explain SAR of antihistamines. Discuss the synthesis and uses of Cimetidine.
b.	What is hypertension. Discuss in detail about drugs acting on Renin-Angiotensin system.
c.	What are lipoproteins? Classify antihyperlipidemic agents with suitable examples. Discuss the SAR of fibric acid derivatives.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Describe the nomenclature and stereochemistry of steroids.
b.	Explain in detail about SAR of local anaesthetics.
c.	Discuss SAR and mechanism of action of alkylating agents.
d.	Explain the synthesis and uses of acetazolamide, chlorthiazide and nitroglycerine.
e.	Write mechanism of action and uses of Menadione, Acetomenadione, Anisindione and clopidogrel. Also write the synthesis of warfarin.
f.	Write a note on Oral contraceptives. Discuss the mechanism of action and uses of Mifepristone, Norgestril and Levonorgestrol.
g.	Discuss in detail about insulin and its preparation. Describe the mechanism of action, uses and synthesis of Tolbutamide.

Subject Code: BP501T

PAPER ID-410347

Roll No: | | | | | | | | | | | | | |

B. PHARM
(SEM V) THEORY EXAMINATION 2021-22
MEDICINAL CHEMISTRY-II

Time: 3 Hours ***Total Marks: 75***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 10 x 2 = 20

a.	Draw any two structures of antimetabolites used as antineoplastic agents.
b.	Write synthesis of isosorbide dinitrate.
c.	What are oral contraceptives. Give examples.
d.	Discuss the mechanism of action and uses of acetazolamide.
e.	Give structure and mechanism of action of any one antihyperlipidemic agent.
f.	Describe calcium channel blockers along with their uses.
g.	Discuss the role of digoxin in treatment of congestive heart failure.
h.	Define oral anticoagulants with examples.
i.	Give the synthesis of benzocaine.
j.	Write down the structure, mechanism of action and uses of rabeprazole.

SECTION B

2. Attempt any *two* parts of the following: 2 x 10 = 20

a.	Classify diuretics. Explain SAR of thiazides diuretics along with synthesis of chlorothiazide.
b.	Define and classify antihistaminic agents. Explain in detail about structures and uses of first generation H1 antihistaminic agents.
c.	What are antidiabetic agents. Classify oral hypoglycemic agents and describe in detail about SAR and mechanism of action of sulfonylureas along with synthesis of tolbutamide.

SECTION C

3. Attempt any *five* parts of the following: 7 x 5 = 35

a.	Classify local anesthetics with examples and explain in detail about various benzoic acid derivatives.
b.	Describe antihypertensive drugs. Explain in detail about structures and mechanism of action of angiotensin converting enzyme inhibitors.
c.	Classify antineoplastic agents. Discuss in detail about structure and mechanism of action of alkylating agents.
d.	Explain thyroid and antithyroid drugs with structures and uses.
e.	Give classification of antianginal drugs. Discuss in detail structure, mechanism of action and uses of nitrates.
f.	Discuss in detail about different corticosteroids. Give structures of cortisone and prednisolone.
g.	Classify antiarrhythmic drugs. Describe in detail about structures and mechanism of action of drugs belonging to class I.

Printed Pages: 01 **Sub Code: BP-501T**

Paper Id: 231121 **Roll No.** | | | | | | | | | | |

B PHARM
(SEM V) THEORY EXAMINATION 2022-23
MEDICINAL CHEMISTRY-II

Time: 3 Hours ***Total Marks: 75***

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 10 x 2 = 20

(a) Give the synthesis of Cimetidine.
(b) State the mechanism of action and uses of Methotrexate.
(c) What are anti-anginal drugs? Outline the structure of Nitroglycerin.
(d) Give the synthesis and uses of Furosemide.
(e) Name and give structures of any two drugs used in Congestive Heart Failure.
(f) State the importance of anticoagulants.
(g) Write the structure and uses of Testosterone.
(h) Discuss mechanism of action and uses of Sildenafil.
(i) Outline the synthesis of benzocaine.
(j) State the mechanism of action and uses of metformin.

SECTION B

2. Attempt any *two* parts of the following: 2 x 10 = 20

(a) Classify anti-neoplastic agents in detail. Give the synthesis of Mechlorethamine.

(b) Discuss SAR of local anaesthetics.

(c) What are antihypertensive agents? Classify them and give mode of action and uses of methyldopate hydrochloride.

SECTION C

3. Attempt any *five* parts of the following: 5 x 7 = 35

(a) Discuss SAR of Thiazide Diuretics. Outline the synthesis of Chlorthiazide.

(b) Detail about histamine receptors and their distribution in human body. Detail about H2-antagonists.

(c) Illustrate the classification of antihyperlipidemic agents and discuss mechanism of action of HMG-CoA reductase inhibitors.

(d) Discuss nomenclature and stereochemistry of steroids.

(e) Classify antidiabetic agents. Discuss SAR of Sulfonylureas and give synthesis of Tolbutamide.

(f) Discuss mode of action and synthesis of any two: (i) Disopyramide phosphate (ii) Warfarin (iii) Dibucaine

(g) Discuss in detail classification of antithyroid drugs.

Printed Pages: 01 **Sub Code: BP-501T**

Paper Id: 231121 **Roll No.** | | | | | | | | | | |

B PHARM
(SEM V) THEORY EXAMINATION 2022-23
MEDICINAL CHEMISTRY-II

Time: 3 Hours ***Total Marks: 75***

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 10 x 2 = 20

(a) Give the synthesis of Cimetidine.
(b) State the mechanism of action and uses of Methotrexate.
(c) What are anti-anginal drugs? Outline the structure of Nitroglycerin.
(d) Give the synthesis and uses of Furosemide.
(e) Name and give structures of any two drugs used in Congestive Heart Failure.
(f) State the importance of anticoagulants.
(g) Write the structure and uses of Testosterone.
(h) Discuss mechanism of action and uses of Sildenafil.
(i) Outline the synthesis of benzocaine.
(j) State the mechanism of action and uses of metformin.

SECTION B

2. Attempt any *two* parts of the following: 2 x 10 = 20

(a) Classify anti-neoplastic agents in detail. Give the synthesis of Mechlorethamine.

(b) Discuss SAR of local anaesthetics.

(c) What are antihypertensive agents? Classify them and give mode of action and uses of methyldopate hydrochloride.

SECTION C

3. Attempt any *five* parts of the following: 5 x 7 = 35

(a) Discuss SAR of Thiazide Diuretics. Outline the synthesis of Chlorthiazide.

(b) Detail about histamine receptors and their distribution in human body. Detail about H2-antagonists.

(c) Illustrate the classification of antihyperlipidemic agents and discuss mechanism of action of HMG-CoA reductase inhibitors.

(d) Discuss nomenclature and stereochemistry of steroids.

(e) Classify antidiabetic agents. Discuss SAR of Sulfonylureas and give synthesis of Tolbutamide.

(f) Discuss mode of action and synthesis of any two: (i) Disopyramide phosphate (ii) Warfarin (iii) Dibucaine

(g) Discuss in detail classification of antithyroid drugs.

PAPER ID-310642

Roll No:

BPHARM
(SEM V) THEORY EXAMINATION 2023-24
MEDICINAL CHEMISTRY II – THEORY

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Define H_2 receptor antagonist with examples.
b.	Name any two natural products used as anticancer agents.
c.	Discuss the mechanism of action of osmotic diuretics.
d.	Write the mechanism of action of digoxin in the treatment of congestive heart failure.
e.	What are oral contraceptives? Give examples.
f.	Write the uses of sotalol and menadione.
g.	Write the structure and uses of any two anticoagulants.
h.	Give the structure and uses of thyroid hormones.
i.	Write the mechanism of action and uses of metformin.
j.	Outline the synthesis of procaine.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Define and classify Antihistaminic agents with examples. Outline synthesis, mechanism of action, and uses of Diphenhydramine and Promethazine.
b.	Classify diuretics with examples. Explain SAR of thiazides diuretics along with synthesis, mechanism of action and uses of chlorothiazide.
c.	Define and classify local anaesthetic agent with examples. Outline the synthesis and mechanism of action of Benzocaine and Dibucaine.

SECTION C

3. Attempt any *five* parts of the following: **5 x 7 = 35**

a.	Discuss proton pump inhibitor in detail and give structure, mechanism of action and uses of Omeprazole.
b.	Classify Anti-hyperlipidaemic agents. Describe in detail about structures and mechanism of action of Clofibrate and Lovastatin.
c.	Outline the SAR of dihydropyridines (calcium channel blockers). Give the structure, synthesis, mechanism of action and uses of Methyldopate Hydrochloride.
d.	Briefly explain erectile dysfunction and drugs used in it with their mechanism of action.
e.	Describe the nomenclature and stereochemistry of steroids.
f.	Classify oral hypoglycaemic agents and describe in detail about SAR and mechanism of action of sulfonylureas along with synthesis of tolbutamide.
g.	Discuss SAR of Local anaesthetics. Give structure and mechanism of action of Cocaine and Meprylcaine.

PAPER ID-410836

Subject Code: BP501T

Roll No: | | | | | | | | | | | | | |

BPHARM

(SEM V) THEORY EXAMINATION 2023-24

MEDICINAL CHEMISTRY II THEORY

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Give the structure of promethazine.
b.	Enlist histamine receptors.
c.	Write a note on proton pump.
d.	Give the structure and use of isosorbide dinitrate.
e.	Write the uses of chlorothiazide.
f.	Define hypertension.
g.	Write the uses of minoxidil.
h.	Give the structure and use of testosterone.
i.	Write the mode of action of sildenafil.
j.	Write the normal levels of thyroid test.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Classify alkylating agents; write the SAR and mode of action of mechlorethamine.
b.	Write the synthesis SAR and mechanism of action of diphenhydramine.
c.	Classify diuretics; give the synthesis and mechanism of action of Acetazolamide.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Write the mode of action of antimetabolites. Give structure and adverse effects of methotrexate.
b.	Classify local anesthetics with structures.
c.	Write the synthesis, SAR and mode of action of tolbutamide.
d.	Write a note on oral contraceptives.
e.	Write the nomenclature and stereochemistry of steroids.
f.	Write the synthesis, SAR and mechanism of action of methyldopa hydrochloride.
g.	Write the synthesis, SAR and mechanism of action of cimetidine.

Paper id: 250741

Roll No: | | | | | | | | | | | | | |

BPHARM
(SEM V) THEORY EXAMINATION 2024-25
MEDICINAL CHEMISTRY II – THEORY

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	What are antiarrhythmic drug?
b.	Name two natural products used as an anticancer agent.
c.	Discuss the uses of glucosidase inhibitors.
d.	State the mechanism of action and uses of Methotrexate.
e.	Define antihistaminic with suitable examples.
f.	Write the mechanism of action of Digoxin in the treatment of congestive heart failure.
g.	What are oral contraceptives? Give example.
h.	Draw the structure of captopril.
i.	What are antihyperlipidemic with examples?
j.	Write the structure and uses of Testosterone.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Discuss the SAR of local anaesthetics with the synthesis and MOA of procaine.
b.	Classify diuretics with examples. Explain SAR of thiazide diuretics along with synthesis, mechanism of action and uses of chlorothiazide.
c.	What are antihypertensive agents? Classify them and give mode of action and uses of methyldopate hydrochloride.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Draw the structure of acetazolamide with its mechanism of action.
b.	Briefly explain erectile dysfunction and drugs used in it with their mechanism of action.
c.	Explain mechanism of action and uses of mercaptopurine.
d.	What is proton pump inhibitor? Explain SAR and synthesis of cimetidine.
e.	What are anticoagulants? Discuss mode of action and synthesis of Warfarin.
f.	Classify oral hypoglycaemic agents and describe in detail about SAR and mechanism of sulfonylureas along with synthesis of tolbutamide.
g.	What are antianginal drugs? Explain mode of action and synthesis of Nitroglycerin.

PAPER ID-310148

Roll No: | | | | | | | | | | | | | |

BPHARM
(SEM V) THEORY EXAMINATION 2024-25
MEDICINAL CHEMISTRY II – THEORY

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Discuss the uses of glucosidase inhibitors.
b.	What are sulfonyl ureas?
c.	Classify the histamine receptors.
d.	Write the MOA and uses of prednisolone.
e.	Give examples of anti-arrhythmic drugs.
f.	What are antineoplastic agents.
g.	List the examples of calcium channel blocking agents.
h.	Draw the structure of captopril.
i.	Explain the mechanism of action of estradiol.
j.	How do L-Thyroxine acts.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Discuss the SAR of local anesthetics with the synthesis and MOA of procaine.
b.	Write the synthesis of nitroglycerin with uses and its mechanism of action.
c.	Classify the antidiabetic agents and discuss the chemistry and mechanism of action of insulin.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Give the synthesis, MOA, and uses of mechlorethamine.
b.	Draw the structure of acetazolamide with its mechanism of action.
c.	Write the synthesis and uses of furosemide.
d.	Give a note on gastric proton pump inhibitors with examples.
e.	Explain the mechanism of action and uses of mercaptopurine.
f.	Illustrate the MOA of methyldopa.
g.	Discuss the mechanism of action and synthesis of warfarin.