

February 2009

[KU 756)

Sub. Code: 4247

FOURTH B.PHARM. DEGREE EXAMINATION
(Regulations 2004)
Candidates Admitted from 2004-05
Paper VI – MEDICINAL CHEMISTRY – II
Q.P. Code : 564247

Time : Three hours

Maximum : 90 marks

I. Essay Questions : Answer any TWO questions (2 x 20 = 40)

1. Give brief introduction to computer aided drugs designing (CADD) and molecular modelling with suitable examples.
2. What are synthetic anti bacterial agents? Describe them in detail, the methods of preparation, SAR , toxicity and uses.
3. Describe in detail the classification, mechanism of action, toxicity and uses of anti cancerous drugs.

II. Write Short Notes : Answer any EIGHT questions (8 x 5 = 40)

1. Synthetic hypoglycemic agents.
2. Antihelmenthtics.
3. Mineralocorticoides.
4. Anti-arrythmic drugs.
5. Unclassified antibiotics.
6. Antiscabies agents.
7. Classification and uses of antiprotozoal drugs.
8. SAR of antimalarials.
9. Mercaptopurines.
10. Androgens.

III. Short Answers: Answer any FIVE questions (5 x 2 = 10)

1. Classification of Sulpha drugs.
2. Congored.
3. Clofibrate.
4. Eugenol.
5. Nalidixic acid.
6. Ketoconazole.
7. Gamaxene.

August 2009

[KV 756]`

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**FOURTH B.PHARM. DEGREE EXAMINATION
(Regulations 2004)**

Candidates Admitted from 2004-05

Paper VI – MEDICINAL CHEMISTRY – II

Q.P. Code : 564247

Time : Three hours

Maximum : 90 marks

I. Essay Questions : Answer any TWO questions (2 x 20 = 40)

1. Give the structure and synthesis of i) Haxachlorophene
ii) Miconazole iii) Nalidixic acid. iv) Metronidazole.
2. a) Write in detail about history, background, current status and chemistry of penicillins.
b) Describe with suitable examples for the structure, activity, relationship of i) Anti-neoplastic agents. ii) Glucocorticoids.
3. Outline the structure and synthesis of i) Sulfamethoxazole
ii) Amodiaquine iii) Chloramphenicol iv) Mercaptopurine.

II. Write Short Notes : Answer any EIGHT questions (8 x 5 = 40)

1. Outline the structure and synthesis of Isosorbide dinitrate.
2. Draw the structures of i) Cycloserine ii) Amantadine
iii) Terramycin iv) Captopril.
3. Sketch any FOUR skeletal structures of diagnostic drugs and reagents.
4. Draw the structures of i) Furazolidone ii) Methylene blue
iii) Ethionamide iv) Sulfadoxine.
5. Give the structure, synthesis and uses of Nitrofurantoin.
6. Write in detail about historical development and mechanism of actions of sulfa drugs.
7. Draw any two structures from thyroid and anti-thyroid drugs. Give any one synthesis.
8. Describe about the various parameters and analysis in QSAR.
9. Write short notes on polypeptide antibiotics.
10. Explain the solid and liquid phase synthesis of drugs under combinatorial chemistry.

III. Short Answers: Answer any FIVE questions (5 x 2 = 10)

1. Define oral contraceptives and give examples.
2. How would you classify hypoglycemic agents.
3. Give the structures of INH, Niacin and anisindone.
4. Describe the mechanism of actions of local anti-infective agents.
5. Define pro-drugs and give two examples.
6. Draw any TWO structures of antifungal agents.
7. Classify anti-helminthics with examples.

February 2010

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FOURTH B.PHARM. DEGREE EXAMINATION

(Regulation 2004)

(For Candidates admitted from 2004–05 onwards)

Paper VI – MEDICINAL CHEMISTRY – II

Q.P. Code : 564247

Time : Three hours

Maximum : 90 marks

I. Essay Questions : Answer any TWO question. (2 x 20 = 40)

1. Give the structure and synthesis of: i) Halazone ii) Tolnafate
iii) Nitrofurantoin iv) Diloxanide furoate.
2. a) Write in detail about history, background, current status and chemistry of tetracyclines.
b) Describe with suitable examples for the structure activity relationship of: i) Sulfa drugs ii) Anti-neoplastic agents.
3. Outline the structure and synthesis of: i) Sulphamethizole
ii) Chloroquine phosphate iii) Chloramphenicol iv) INH.

II. Write Short Notes : Answer any EIGHT questions (8 x 5 = 40)

1. Outline the structure and synthesis of Nalidixic acid.
2. Draw the structures of any four anti-helminthitics.
3. Sketch the structure and synthesis of Isosorbide dinitrate.
4. Draw the structures of i) Crotamiton ii) Quinine sulphate
iii) amantidine iv) Sulfacetamide.
5. Describe about history, development and current status of Penicillin's.
6. Explain the solid and liquid phase synthesis of drugs undercombinatorial chemistry.
7. Outline the structure and synthesis of disopyramide phosphate.
8. Describe about the various parameters and analysis in QSAR.
9. Draw any two structures each from antiviral and diagnostic agents.
10. Sketch the following and mention their uses: i) Oestradiol
ii) Tolbutamide iii) Progesterone iv) Enalapril.

III. Short Answers: Answer any FIVE questions (5 x 2 = 10)

1. Write at-least four applications of quantum mechanical methods.
2. How would you classify antihyperlipidemic agents.
3. Add a note on reducing crystalluria by lowering pKa while using sulfa drugs.
4. Write short notes on anti-coagulants.
5. Describe the chemistry of Oxytocin.
6. Enlighten about chemistry of natural hormones from steroids.
7. Write short notes on prodrugs with example.

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September 2010

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FOURTH B.PHARM. DEGREE EXAMINATION

(Regulations 2004)Candidates Admitted from 2004-05

Paper VI – MEDICINAL CHEMISTRY – II

Q.P. Code : 564247

Time : Three hours

Maximum : 90 marks

I. Essay Questions :

(2 X 20 = 40)

Answer any TWO questions.

1. Discuss about the molecular mechanism in computer aided drug design.
2. Discuss in detail the classification, mechanism of action, toxicity and uses of Sulpha drugs.
3. Outline the structure and synthesis of :
i) Dapsone
ii) Amodiaquine Hydrochloride iii) Acyclovir iv) PAS

II. Write Short Notes : Answer any EIGHT questions.

(8X 5 = 40)

1. Give an account of anti viral agents.
2. Write the structure of i) Congored ii) Evans Blue iii) Diatrizoic acid iv) Pentagastrin.
3. Discuss the classification of Anti Neoplastic agents.
4. Give the synthesis of i) Chloramphenicol ii) Isosorbide Dinitrate
5. Discuss the mechanism of action of purine antagonist. Give an example with structure and use.
6. Write short notes on Synthetic Hypoglycemic agents.
7. Discuss the chemistry of natural hormones.
8. Give the structure and uses of the following: i) Pyrimethamine ii) Trimethoprim iii) Metronidazole iv) Thiabendazole.
9. Write short notes on Antiscabious agents.
10. Write short notes on Synthetic Antibacterial agents.

III. Short Answers: Answer any FIVE questions.

(5X2 = 10)

1. Discuss the mechanism of action of Antihypertensive agents.
2. Define Anti-Coagulants and anti-thrombolytics with examples.
3. Classify Anthelmintics with examples.
4. Draw any two structures of Anti-hyperlipidemic agents.
5. Discuss about oxytocin.
6. Write uses of i) Rifampicin ii) Dimercaprol iii) Praziquantal iv) Primaquine Phosphate.
7. Give Synthesis of Para amino Salicylic Acid.

FEBRUARY 2011

[KY 756]

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**FOURTH B.PHARM. DEGREE EXAMINATION.
(Regulations 2004) Candidates Admitted from 2004-05
Paper VI — MEDICINAL CHEMISTRY - II
Q.P. Code : 564247**

Time : Three hours

Maximum : 90 marks

I. Essay Questions : Answer any TWO questions. (2 x 20 = 40)

1. Discuss in details about. (7 + 6 + 7)
 - (a) Insulin and its preparation.
 - (b) Mineralocorticoids.
 - (c) Computer Aided Drug Design.
2. (a) Discuss in detail the classification, mechanism of action of antineoplastic agents. (7)
(b) Write in detail about history, background, current status and chemistry of penicillins and cephalosporins. (7 + 6)
3. Outline the structure and synthesis of:
 - (a) Methyl dopa
 - (b) Metronidazole
 - (c) Mebendazole
 - (d) Mercaptopurine
 - (e) Methotrexate. (5 x 4)

II. Write Short Notes: Answer any EIGHT questions. (8 x 5 = 40)

1. Give an account of anti-fungal agents.
2. Discuss the classification of Local anti-infective agents. Give the synthesis of Hexachlorophene.
3. Write notes on Antiviral drugs.
4. Give the synthesis of : (a) Warfarin (b) Isosorbide Dinitrate.
5. Discuss the mechanism of action of Sulphonamides. Write the synthesis of any one drug.
6. Write short notes on Synthetic Hypoglycemic agents.
7. Discuss the chemistry of tetracyclines.
8. Give the structure and uses of the following :
 - (a) Clofibrate
 - (b) Captopril
 - (c) Hydrallazine
 - (d) Clonidine
 - (e) Reserpine.
9. Write short notes on Diagnostic drugs.
10. Explain Combinatorial Chemistry.

III. Short Answers: Answer any FIVE questions. (5 x 2 = 10)

1. Define Antibiotics and Antibacterial Agents.
2. Discuss the mechanism of action of Anti-hyperlipidemic agents.
3. Define Molecular mechanics and Analog drug design.
4. Write short notes on Oestrogens.
5. Give Synthesis of Chlorquine.
6. Draw any TWO structures of synthetic antibacterial agents.
7. Chloramphenicol.
