

Second half
2014

T.Y B Pharm
Pharmacology-II
CBGS

Vth Sem

QP Code : 10417



(3 Hours)

Total Marks : 70

- N. B. : (1) All questions are compulsory.
(2) Figures to the right indicate full marks.

1. (a) Answer the following :- 12
- (i) Methicillin can be used in penicillinase producing staphylococcal infections. Justify
 - (ii) Patients given sulphonamides are advised to drink plenty of water. Justify
 - (iii) Why do cancer cells evoke a weak immune response and go undetected.
 - (iv) Explain mechanism of action of iodides as anti-thyroid agents.
 - (v) Enlist the different types of oral contraceptives.
 - (vi) Enlist factors affecting iron absorption from gastro-intestinal tract.
- (b) Match the following :- 3
- | <u>Drugs</u> | <u>Adverse effects</u> |
|-------------------|------------------------|
| (i) Tacrolimus | (a) Ototoxicity |
| (ii) Tetracyclins | (b) Nephrotoxicity |
| (iii) Heparin | (c) Haemochromatosis |
| | (d) Thrombocytopenia |
2. (a) Write short notes on any two of the following :- 8
- (i) First line drugs in treatment of tuberculosis
 - (ii) Agents used to treat herpes infection
 - (iii) Extended spectrum penicillins
- (b) Attempt any one of the following :- 3
- (i) Justify the combination of trimethoprim and sulphamethoxazole
 - (ii) Write a short note on alkylating agents.
3. (a) Attempt any two of the following :- 8
- (i) Explain the process of bone remodelling. Add a note on bisphosphonates.
 - (ii) Explain mechanism of action of insulin. Discuss in brief the action of insulin on liver.
 - (iii) Write a short note on Oxytocics.
- (b) Answer any one of the following :- 3
- (i) Explain rationale of using vitamin D with calcium supplements.
 - (ii) Write a note on propylthiouracil
4. (a) Attempt any two of the following :- 8
- (i) Classify anticoagulants. Write a short note on mechanism of action and uses of heparins.
 - (ii) Discuss the physiological role of folic acid and its role in treatment of anaemia.
 - (iii) Classify anti-platelets. Add a note on clopidogrel.

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- (b) Answer **any one** of the following :- 3
- (i) Explain mechanism of action and role of Vitamin K.
 - (ii) Write a brief note on fibrinolytics.
5. (a) Write short notes on **any two** of the following :- 8
- (i) Azole antifungals
 - (ii) Drugs used in leprosy
 - (iii) Macrolide antibiotics
- (b) Answer **any one** of the following :- 3
- (i) Discuss combination therapy of antimicrobials.
 - (ii) Classify antimalarials and write a note on primaquine.
6. (a) Answer **any two** of the following :- 8
- (i) Write a short note on glucocorticoids as immuno-suppressant agents.
 - (ii) Classify oral anti-diabetic drugs. Explain mechanism of action and uses of sulphonylureas.
 - (iii) Describe treatment of hypothyroidism.
- (b) Write short notes on **any one** of the following :- 3
- (i) Vinca alkaloids in cancer
 - (ii) Metronidazole

First Half of 2015
T.Y.B. Pharm. Sem - V (Reg. Exam)
Pharmacology - II

QP Code : 16121

(3 Hours)

Total Marks : 70

- N. B. : (1) All questions are compulsory.
(2) Figures to the right indicate full marks.

1. (a) Answer the following :- 12
- (i) Enlist the various mechanisms for development of microbial resistance.
 - (ii) Give mechanism of action of aminoglycosides.
 - (iii) CD4 cell count gets depleted in HIV infection. Justify.
 - (iv) Name the hormones secreted by thyroid gland. Give the physiological role of one of the thyroid hormones.
 - (v) Give mechanism of action of DPP-IV inhibitors.
 - (vi) Enlist factors affecting iron absorption.
- (b) Fill in the blanks:- 3
- (i) _____ produces gray baby syndrome.
 - (ii) Active form of vitamin D is _____.
 - (iii) Aspirin inhibits _____ enzyme to produce its analgesic and anti-inflammatory action.
2. (a) Answer any two of the following :- 8
- (i) Explain the cycle of malarial parasite indicating various targets for anti-malarial drug action.
 - (ii) Classify anti-cancer drugs. Explain pharmacology of any one class.
 - (iii) Give classification, mechanism of action and therapeutic uses of penicillin. 3
- (b) Write short note on any one of the following :- 8
- (i) Tetracyclines
 - (ii) Albendazole
3. (a) Answer any two of the following :-
- (i) Classify anti-diabetic drugs. Explain mechanism of action and unwanted effect of sulfonylureas.
 - (ii) Write a short note on anti-thyroid drugs.
 - (iii) Explain pharmacological action, adverse effect and clinical uses of oxytocin. 3
- (b) Answer any one of the following :-
- (i) What are the different types of oral contraceptives. Explain mechanism of action of combined pill.

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- (ii) Explain the role of parathyroid hormones in the treatment of osteoporosis.
4. (a) Explain mechanism of action, adverse effects and clinical uses of any two drugs :-
(i) Heparin
(ii) Aspirin
(iii) Folic acid
(b) Write short notes on any one of the following :-
(i) Vitamin - K
(ii) Thrombolytic Drugs
5. (a) Answer any two of the following :-
(i) Sulphonamides are not very effective in presence of pus justify. Explain mechanism of action of trimethoprim. 3
(ii) Write a short note on chemotherapy of AIDs
(iii) Classify anthelmintic drugs. Write a short note on Metronidazole.
(b) Answer any one of the following :-
(i) Classify anti-fungal drugs on the basis of mechanism of action 8
(ii) Classify anti-tubercular drugs. Add a note on mechanism of action of Rifampicin.
6. (a) Answer any two of the following :-
(i) Write a short note on Immunosuppressant. 3
(ii) Give mechanism of action and complications of insulin.
(iii) Classify the drugs used for treatment of osteoporosis. Elaborate on pharmacological actions of vitamin-D.
(b) Answer any one of the following :-
(i) Give mechanism of action of Amphotericin B and Azole antifungals.
(ii) Write a short note on Dapsone.
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(2015-2016)

Sem ~~IV~~ V
Pharmacology - II

QP Code : 21741

(3 Hours)

[Total Marks : 70

- N.B. : (1) All questions are **compulsory**.
(2) **Figures** to right indicate full marks.

1. (a) Answer the following : 12
(i) Define :- (i) Bioavailability (ii) Bioequivalence
(ii) Name the factors affecting plasma half life.
(iii) What are enzyme linked receptors ? Classify them giving examples of each type.
(iv) Give classification of anti-hypertensive drugs.
(v) What are the clinical uses of skeletal muscle relaxants ?
(vi) Give the mechanism of action of Reserpine.
- (b) (i) Define metabolism. What purpose does it serve ? 3
(ii) Enlist factors modifying drug action.
(iii) Classify cholinergic muscarinic receptors giving examples of agonists and antagonists at these receptors.
2. (a) Answer any **two** of the following : 8
(i) What are phase I reactions ? Give the different types of Phase I reactions ?
(ii) What are the various routes of administration of a drug ? Write briefly on each route.
(iii) Explain the renal route of excretion
- (b) Write short notes on any **one** of the following : 3
(i) Discuss nephrotoxicity. Give examples of drugs causing nephrotoxicity.
(ii) What are mutagens ? How do they differ from carcinogens ?
3. (a) Answer any **two** of the following : 8
(i) Explain the effector pathways for GPCR.
(ii) What is enzyme induction ? Give examples of drugs which are potent enzyme inducers.
(iii) What is drug potency, drug efficacy and drug selectivity ? Explain with examples.
- (b) Answer any **one** of the following : 3
(i) Classify adrenergic alpha receptors. Give location and actions on their activation.
(ii) Write a short note on acetylcholine esterase inhibitors.

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4. (a) Answer any **two** of the following : 8
- (i) Describe synthesis, storage, release and metabolism of epinephrine and norepinephrine.
 - (ii) Explain in detail the therapeutic effects of anticholinergic drugs.
 - (iii) Classify ganglion blocking agents. Give the mechanism of action of any one drug.
- (b) Answer any **one** of the following : 4
- (i) Explain the mechanism of action of tyramine.
 - (ii) Classify beta adrenoceptor antagonists. Give their uses in the therapy of cardiovascular disease.
5. (a) Answer any **two** of the following : 8
- (i) Write a short note on calcium channel blockers in the management of cardiovascular disease. Classify them giving examples of each class.
 - (ii) Classify drugs used in antihyperlipidemic therapy. Write a short note on fibrates.
 - (iii) Classify anti-hypertensive drugs with examples. Write briefly about their mechanism of action.
- (b) Answer any **one** of the following : 3
- (i) What is the mechanism of action of ACE inhibitors. Give examples.
 - (ii) What is the effect of digitalis glycosides in congestive cardiac failure.
6. (a) Answer any **two** of the following : 8
- (i) Explain the use of diuretics in hypertension.
 - (ii) When will potassium sparing diuretics be administered to a patient ?
 - (iii) Give therapeutic classification of adrenergic drugs. Write a note on CNS stimulants.
- (b) Answer any **one** of the following : 3
- (i) How does age and gender affect drug action ?
 - (ii) Define TDM. What is its significance in drug therapy ?
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2016-2017
PHARMACOLOGY
PHARMACOGNOST

Sem-IV second half 2016
PLO-87-IT Q. P. Code : 499900

(3 Hours)

[Total Marks : 70

N.B. : (1) All questions are compulsory.
(2) Figures to the right indicate full marks.

1. a) Answer the following :-

12

- i) Enlist the first line drugs used in treatment of TB.
- ii) Penicillin and Amino glycoside antibiotics in combination exhibit synergistic action, justify.
- iii) Enlist the clinical uses of Immuno-suppressants.
- iv) Classify insulin preparations.
- v) Name the drug used in "Emergency Contraception" and give its mechanism of action.
- vi) Give two examples of Tissue Plasminogen Activator. Justify their use after stroke.

b) Match the following :-

3

- | | |
|------------------|---------------------|
| i) Carbenicillin | a) Anti-fungal |
| ii) Carbimazole | b) Anti-Platelet |
| iii) Clopidogrel | c) Anti-Pseudomonas |
| | d) Thyrotoxicosis |

2. a) Answer any two of the following :-

8

- i) Classify anti-microbials on mechanism of action. Write a note on rational use of antibiotics.
- ii) Enlist the anti-metabolites used in Cancer. Write a note on Methotrexate.
- iii) Illustrate targets of anti malarial drugs. Elaborate on mechanism of action, side effects and uses of chloroquine.



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Q. P. Code :

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- b) Answer any one of the following :- 3
- i) Write a short note on Zidovudine.
 - ii) Write a short note on topical anti fungal agents.
3. a) Answer any two of the following :- 8
- i) Classify oral Hypo glycaemic agents. Write a note on Biguanides.
 - ii) What are the abnormalities of Thyroid function. Give an account on drugs used in hyperthyroidism.
 - iii) What is the hormonal control of bone mineral homeostasis. Explain the role of bisphosphonates in treatment of osteoporosis.
- b) Write short note on any one :- 3
- i) Oxytocin
 - ii) DPP-IV Inhibitors
4. a) Answer any two of the following :- 8
- i) Discuss the pharmacology of Folic acid.
 - ii) Enlist Platelet inhibitors. Discuss the Pharmacology of Aspirin.
 - iii) Give a detailed account on Iron preparations.
- b) Write a short note on any one :- 3
- i) Vitamin K
 - ii) Streptokinase
5. a) Answer any two of the following :- 8
- i) Classify anti amoebic drugs. Give an account on mixed amoebicidal agents.
 - ii) Classify Anti-viral agents. Write a note on protease inhibitors.
 - iii) Classify Anthelmintics. Write a note on Mechanism of action, side effects and Uses of Albendazole.
- b) Write short note on any one :- 3
- i) Sulphonamides
 - ii) Chloramphenicol

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6. a) **Answer any two of the following :-**

- i) Classify Immunomodulators with Examples. Enlist the clinical applications of Immunomodulators.
- ii) Give a detailed account on use of Glucocorticoids as Immuno suppressants.
- iii) Write a note on effect of insulin on carbohydrate, fat and protein metabolism.

8

b) **Write short note on any one :-**

- i) Extended spectrum penicillins
- ii) Amphotericin B

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