

Q11. a) Enumerate clinical uses & adverse effects of Ciprofloxacin 385k  
 b) Give the drug options for the treatment of hypnozoite stage of Malaria 385k

Q12. a) Enumerate NSAIDs (COX-1 & COX-2 Inhibitors)  
 b) Describe the pharmacological actions of Aspirin

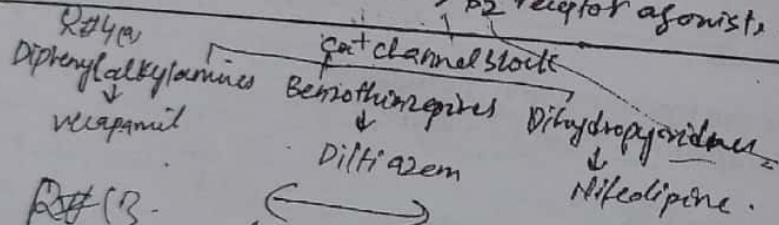
Aspirin  
 Ibuprofen, indometacin  
 celecoxib  
 Anti-inflammatory, antipyretic  
 Anti-thrombotic, prevention of colon cancer  
 analgesic  
 ↑ insulin secretion by closing ATP-sensitive K<sup>+</sup> channels in pancreatic β cells  
 ↓ Cat expansion, ↑ cardiac contractility

Q13. Classify Oral Antidiabetic drugs? Discuss Mechanism of action of Sulfonylureas

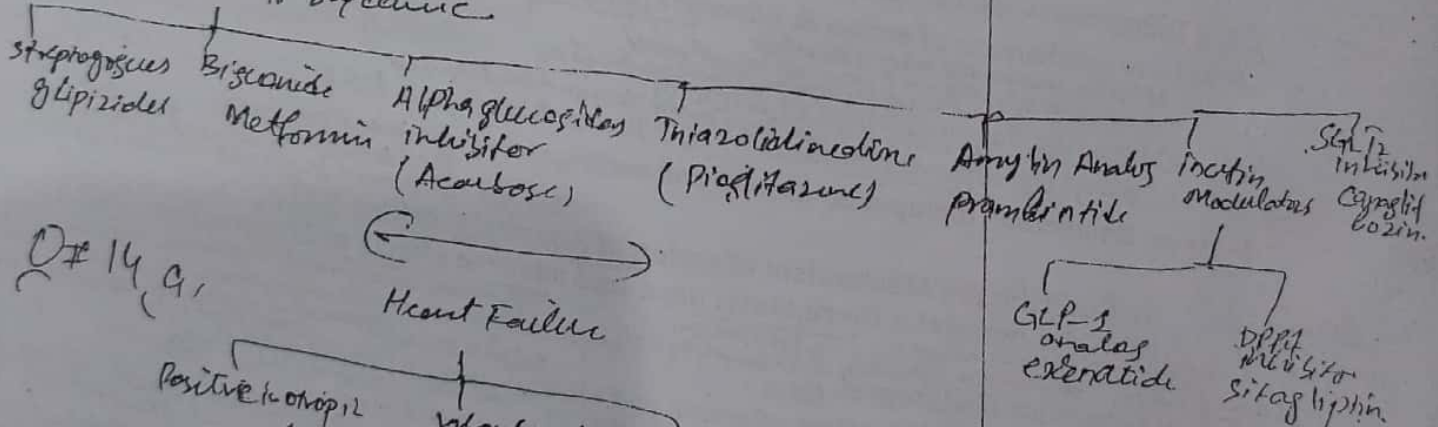
Q14. a) Enumerate drugs used in the treatment of CCF 112k  
 b) Give mechanism of action & uses of Methotrexate. 950k

Q15. a) Write down the mechanism of action of:

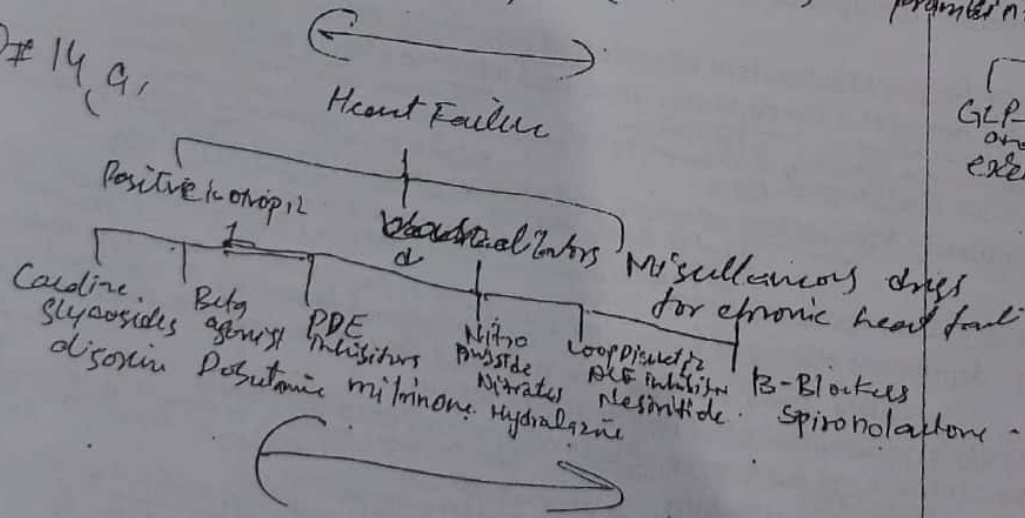
- Digoxin → inhibit Na<sup>+</sup>/K<sup>+</sup> ATPase sodium pump, ↑ intracellular Na<sup>+</sup>, ↓ Cat expansion, ↑ cardiac contractility
- Salbutamol → β<sub>2</sub> receptor agonist, bronchodilation



Oral hypoglycaemic



Q14. a)



*Jain Javed*

**2nd Prof. MBBS  
Sendup Examinations 2017  
PHARMACOLOGY**

**SEQs**

Time Allowed: 2 Hours

Total Marks: 75

- Tolerance means "decrease in responsiveness" occurs when sedative hypnotics are used chronically or in high dosage.*
- Q1 a) Define Drug Dependence. How it differs from Tachyphylaxis. 2  
 b) What is physiological antagonism. Explain with example. 3
- Q2 a) Enumerate Nicotinic receptors with their locations & functions. 3  
 b) Write down clinical uses and adverse effects of Neostigmine. 2
- Q3 a) Classify the drugs used for the treatment of Hypertension. 3  
 b) Give adverse effects & therapeutic uses of Clonidine. 2
- Q4 a) Enumerate Calcium Channel Blockers. 3  
 b) Give mechanism of action & adverse effects of Sodium Nitropruside. 2
- Q5 a) Describe the mechanism of action of chemo 1.5+1.5  
 i) Cyclophosphamides 1.5  
 ii) Nitrates & nitrites 1.5
- Q6 a) Describe the Mechanism of action of Aminoglycosides. 3  
 b) Write down the therapeutic uses and adverse effects of Chloroquine. 2
- Q7 a) Enumerate Barbiturates. 3
- Q8 a) Classify Antidepressant drugs. 2  
 b) Give depressant effects of Morphine. 2
- Q9 a) Classify drug treatment of Peptic Ulcer. 2  
 b. Give clinical uses & adverse effects of Proton Pump Inhibitors. 2
- Q10 a) Enumerate Sulphonamides. 2  
 b) Give clinical uses & adverse effects of Chloramphenicol. 2

Q10 b) For severe infections caused by *Salmonella*.  
 (ii) by *Bacteroides fragilis*  
 (iii) Treatment of pneumococci and meningococcal meningitis  
 (iv) Rickettsial disease

**Tolerance**  
 → An acquired resistance to a drug which develops on its repeated administration over prolonged period of time.  
 → Develops slowly  
 → Prolonged, manifest initial response  
 → Develops with drugs which affect CNS (Narcotics, Analgesics)

**Tachyphylaxis**  
 → Certain drugs when given repeatedly at short intervals especially on experimental animals produce small magnitude of response to same dose.  
 → Develops rapidly  
 → ↑ in dose not manifest ↑ in response  
 → Usually seen with drugs which act by depleting the stores of endogenous substances e.g. indirect acting sympathomimetics, ephedrine.

**(b) Physiologic antagonism**  
 An antagonist may act at completely separate receptor initiating the effects that are opposite to that of agonist.  
 Examples  
 → Functional antagonism by epinephrine to histamine  
 Induce bronchoconstriction  
 Histamine bind to H<sub>1</sub> histamine receptor on smooth muscle cause bronchoconstriction bronchial tree  
 Epinephrine is an agonist at β<sub>2</sub> adrenoceptor on bronchial smooth muscle which causes it to relax. This functional antagonism is also known as physiologic antagonism.



Q-No: 9

Q-No: 9

2

- a) Enumerate drugs in treatment of Amoebiasis.
- b) Explain mechanism of action of gentamycin.

3

Q-No: 10

- a) Enlist first line anti tuberculous drugs.
- b) Explain mechanism of action of rifampin

3

2

Q-No: 11

- a) Enumerate clinical uses & adverse effects of Ciprofloxacin
- b) Give the drug options for the treatment of hypnozoite stage of Malaria

3

2

Q-No: 12

- a) Enlist drugs used for the treatment of asthma.
- b) Explain mechanism of action of aminophylline.

3

2

Q-No: 13

- a) Write down the difference between aspirin and acetaminophen.
- b) Enlist antiplatelet drugs.

3

2

Q-No: 14

- a) Classify Antidepressant drugs.
- b) Give clinical uses of Morphine

3

2

Q-No: 15

- a) Enumerate drugs used in the treatment of CCF
- b) Give mechanism of action & uses of Methotrexate

2

3

1 2 3 4 5 6 7 8 9 10

11 12 13 14 15

Primaquine

(Proguanil)  
(Atovaquone)  
(Aminoclon)

A-E: Digoxin Addictin

Anticancer



THE SUPERIOR COLLEGE, LAHORE

2<sup>nd</sup> PROFESSIONAL MBBS ANNUAL EXAMINATION 2017 PHARMACOLOGY

(SEQ'S)

Time Allowed: 2 hours

Roll No. \_\_\_\_\_ Total Marks: 75

Instructions

1. Attempt all questions.
2. All question carry equal marks.
3. The SEQ's part is to be submitted within 2 hours, Extra time will not be given.
4. Neat Hand Writing use of margin and marker for headlines will increase the presentation of your paper.
5. Do not write your name or disclose your identity in anyway.

Basin

Q-No: 1

Define half-life. Write down its clinical significance

Define bioavailability, potency and therapeutic window

Chem

Q-No: 2

- a) Enumerate cell wall synthesis inhibitors.
- b) Give rationale for the use of clavulanic acid with amoxicillin

CNS

Q-No: 3

- a) Enlist drugs used for hypertensive emergency.
- b) Explain mechanism of action of spironolactone.

Diuretic

Endo

Q-No: 4 Enumerate oral hypoglycemic agent with examples.

Endo

Q-No: 5

- a) Explain mechanism of action of Propylthiouracil?
- b) Enumerate adverse effect of oral contraceptive pills.

CNS

Q-No: 6

- a) Classify diuretics.
- b) Enumerate adverse effect of thiazide diuretics.

CNS

Q-No: 7

- a) Classify general anesthetics.
- b) Enumerate adverse effect of phenytoin.

AS

Q-No: 8

- a) Classify Sympathomimetics on the basis of receptor selectivity.
- b) Enumerate four therapeutic uses of Epinephrine.

Asthma (Anaphylaxis)

Hemostatic

cardiac arrest

glaucoma (inc. outflow via uveoscleral vein)

Septic & cardiogenic shock. Hemostatic & antiplatelet shock.



*chem*

Q11. a) Enumerate clinical uses & adverse effects of Ciprofloxacin  
b) Give the drug options for the treatment of hypnozoite stage of Malaria

3  
2

*NSAIDs*

Q12. a) Enumerate NSAIDs (COX-1 & COX-2 Inhibitors)  
b) Describe the pharmacological actions of Aspirin

*slow down (wrong) and platelets  
600-2400 → anti-pyretic  
2400-3200 → Analgesic effect*

*Endo*

Q13. Classify Oral Antidiabetic drugs? Discuss Mechanism of action of Sulfonylureas

2+3

*Pharm*

Q14. a) Enumerate drugs used in the treatment of CCF  
b) Give mechanism of action & uses of Methotrexate.

*Propranolol*

2  
3

*CVS*

Q15. a) Write down the mechanism of action of:

- i. Digoxin.
- ii. Salbutamol

*B<sub>2</sub> agonist*

*B<sub>2</sub> agonist*

*MPA → Atenolol*

2.5  
2.5

*(Aspirin + paracetamol)*

*COX-1  
COX-2: celecoxib  
acetaminophen*

*Salbutamol*

*Albuterol  
Salbutamol*

Answer

①

2nd Prof. MBBS  
Sendup Examinations 2017  
**PHARMACOLOGY**

KST

Time Allowed: 2 Hours

SEQs

Total Marks: 75

- Basin Q1 (a) Define Drug Dependence. How it differs from Tachyphylaxis. 2  
 (b) What is physiological antagonism. Explain with example. 3  
 ANS Q2 (a) Enumerate Nicotinic receptors with their locations & functions. 3  
 (b) Write down clinical uses and adverse effects of Neostigmine. 2  
 CVS Q3 (a) Classify the drugs used for the treatment of Hypertension. 3  
 (b) Give adverse effects & therapeutic uses of Clonidine. 2  
 CVS Q4 (a) Enumerate Calcium Channel Blockers 2  
 (b) Give mechanism of action & adverse effects of Sodium Nitropruside 3  
 Q5. (a) Describe the mechanism of action of <sup>Cancer</sup> Cyclophosphamides <sup>AlcA</sup> (ii) Nitrates & nitrites <sup>1.5+</sup> 2  
 Endo Q6 (a) Describe the Mechanism of action of Aminoglycosides 2  
 (b) Write down the therapeutic uses and adverse effects of Chloroquine. 3  
 CNS Q7 (a) Enumerate Barbiturates 2  
 (b) Discuss briefly Mechanism of action and clinical uses of Phenobarbital. 3  
 CNS Q8. (a) Classify Antidepressant drugs. 3  
 (b) Give depressant effects of Morphine. 2  
 GIT Q9. (a) Classify drug treatment of Peptic Ulcer 2  
 (b) Give clinical uses & adverse effects of Proton Pump Inhibitors 3  
 Chemio Q10 (a) Enumerate Sulphonamides 2  
 (b) Give clinical uses & adverse effects of Chloramphenicol 3

22K

51K

67K

CVS

CVS

Endo

Chemio

CNS

CNS

GIT

Chemio

Therapeutic  
Indications

2, 3, 4, 5, 6, 7, 8, 9, 10

②

3

4

5

6

7

8

9

10

14

15