THE SUPERIOR COLLEGE, LAHORE

3RD PROFESSIONAL MBBS
ANNUAL EXAMINATION 2018
PHARMACOLOGY
SEQ's

Time Allowed: 2 hours

Roll No. F15-052
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.

Q-No: 1

a) Define inverse agonist, therapeutic window and half-life with examples. 3

b) Write down 4 different types of signalling mechanism of receptor effector system 2

Q-No: 2.

a) What is pilocarpine?. Explain how it reduces the intraocular Pressure in Glaucoma.? 3

b) Enumerate four alpha- 1 antagonist. 2

Q-No: 3

a) Describe the pharmacological actions of Atropine on CVS and Eye. 3

b) Enumerate extra cardiac clinical uses of beta adrenergic receptor blockers. 2

Q-No: 4

a) Enumerate vasodilators. 2

b) Give mechanism of action of cardiac glycosides. 3

Q-No: 5

a) Enlist anti-epileptic drugs used for absence seizure. 2

b) Write down adverse effects of phenytoin. 3

Q-No: 6

a) Enumerate drugs used for the treatment of peptic ulcer. 3

b) What is omeprazole? Explain its mechanism of action. 2

Q-No: 7

a) Explain why benzodiazepine is preferred over barbiturates. 2

b) Discuss .briefly merits and demerits of halothane. 3

P.T.O

Narrow spectrum Wide spectrum

Penicillinase susceptible penicillinase resistant

Chemo Q10 a) Classify Penicillins

b) Give clinical uses and adverse effects of Floroquinolones 2

CNS Q11 a) Enumerate Anti Parkinsonian drugs. 229K 3

235K b) Give clinical uses and side effects of Levodopa

Parkinsonism; GI upset, Dystonia, behavioural effect, on-off phenomena

Q12 a) Enumerate NSAIDS(COX-1 & COX-2 Inhibitors) 2

Chemo 394K b) Give mechanism of action of Isoniazid 3

296K Bactericidal, inhibition of mycolic acid synthesis

Q13 a) ~~Enumerate four uses of oral contraceptives~~ 2

CNS b) Describe the mechanism of action of Local Anesthetics 220K

Describe MOA of Theophylline

PDE inhibition, Adenosine receptor antagonist

CNS Q14 a) Enumerate Four Benzodiazepines 2

Short → Triazolam
I.M → Alprazolam
Long → Flurazepam, Diazepam, midazolam

b) Give Clinical uses of Morphine. 3

Analgesia, euphoria, miosis, anti tussive, anaesthesia, antidiarrheal, sedation

CNS Q15 a) Write down the mechanism of action of Digoxin and treatment of its toxicity 2 3

K120 41.7K

→ Inhibit Na^+/K^+ ATPase pump
→ ↑ intracellular sodium
→ ↓ Ca efflux
→ ↑ cardiac contractility.

Prolong refractory time or correction

(i) K^+ supplements
(ii) Antiarrhythmic drugs lidocaine, phenytoin
(iii) Digoxin antibody Fab fragment Digibind

Block voltage gated Na^+ channel

Q#13(b) (i) ↓ influx of sodium
(ii) Prevent depolarization of membrane
(iii) Blockage of conduction of action potential

Q#4(b) Thiazide diuretics: acts by blocking Na^+/Cl^- transport in distal convoluted tubule; lower blood pressure by:
i) Excretion of sodium and water
ii) ↓ extracellular volume
iii) ↓ in cardiac output and renal flow.

(2) Loop Diuretics acts by blocking $Na/K^+/2Cl^-$ in thick ascending limb of loop of Henle
↓ renal vascular resistance
↑ renal blood flow.

(3) K^+ sparing diuretic reduce loss of K^+ in urine.

(a) Propranolol
→ β Blocker
→ blocks sympathetic effect on heart and blood pressure
→ reduce renin release.

Q#6(a) Antiemetics

- 5HT3 blocker: Ondansetron
- D2 blocker: Prochlorperazine
- H1 blocker: Diphenhydramine
- Antimuscarinic: Scopolamine
- Corticosteroid: Dexamethasone
- Cannabinoid ↓ Dronabinol
- Neurokinin receptor antagonist ↓ Aprepitant

Halothane:

Merits
→ Pleasant odour
→ Potent, Non inflammable
→ Induction smooth and rapid
→ Anaesthesia for surgery develop within 2-5 min
→ Cough less readily provoked
→ Bronchodilation

Demerits
→ Severe Hepatitis
→ Cardiac depression

Q#12(a) NSAIDS
- Aspirin
- other Non-selective NSAIDS: Ibuprofen, Indomethacin
- COX-2 Inhibitor: Celecoxib

Q#8 (a) Morphine and opioids exert major effect by interacting with opioid receptors present on membranes of many cells in CNS and other structures of GIT and bladder. Morphine also act at Kappa receptors present at lamina I and II of dorsal horn of spinal cord. It decrease substance P which modulates pain perceptions in spinal cord.

→ Morphine also inhibit release of many excitatory transmitter carrying nociceptors stimuli.

Q#8(b) (i) Morphine cause respiratory depression due to ↓ sensitivity of respiratory neurons to CO_2.
(ii) Morphine cause cough reflex depression due to anti tussive property.
(iii) Relieve diarrhea by ↓ motility and ↑ intestinal circular smooth muscle tone.

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3rd PROFESSIONAL MBBS

Send up EXAMINATION 2018

Pharmacology

(SEQ's)

Time Allowed: 2HOURS

Roll No. FIS-110

Total Marks: 75

Zaima Javed.

Instructions

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Q1 .a) Define Drug Allergy. Give its manifestations. 2

b) Give drug treatment of Anaphylactic Shock 3

Q2 a) Enumerate Nicotinic receptors with their locations & functions 3

b) Write down drug treatment of Myasthenia Gravis

Q3. a) Classify Sympathomimetic drugs on the basis of receptor selectivity 3

b) Enumerate Four therapeutic uses of Epinephrine. 2

Q4 a) Enumerate Four anti psychotic drugs 3

b) Describe the role of Diuretics in hypertension. 2

Q5. a) Describe the mechanism of action of 1.5+1.5

i) Propranolol ii) Nitrates & nitrites

b) Enumerate therapeutic uses of oral contraceptives 2

Q6. a) Enumerate antiemetic drugs 3

b) Give mechanism of action of Sucralfate. 2

Q7. a) Give drug treatment of barbiturate poisoning

b) Discuss briefly merits and demerits of halothane.

Q8 a) Describe mechanism of action of Morphine 2

b) Enumerate three depressant actions of Morphine 3

Q9 Write mechanism of action of 2.5+2.5

i. Rifampicin

ii. Methotrexate

Treatment of pulmonary Tuberculosis: 2018

Initial 3 drug regimen

INH, rifampin, Pyrazinamide.

→ if organisms fully susceptible (and patient is HIV negative) Pyrazinamide can be discontinued after 2 months

→ Treatment continued for further 4 month with 2 drug regimen.

Q-No: 8.

a) Write down at least three differences between typical and atypical antipsychotic drugs. 3

b) Explain the role of carbidopa with levodopa in parkinsonism. 2

Q-No: 9

Write down first-line anti-tuberculous drugs with their major adverse effect in tabulated form. 5

Q-No: 10

a) Classify antimicrobials according to mechanism of action. 3

b) Explain mechanism of action of Tetracycline. 2

Q-No: 11

a) Enumerate four anti-fungal drugs. 2

b) Give adverse effects of corticosteroids. 3

Q-No: 12

a) Enumerate selective serotonin re - uptake inhibitors. 2

b) Give mechanism of action tamoxifin. 3

Q-No: 13

a) Classify oral antidiabetic drugs 2

b) Discuss mechanism of action of sulfonylureas 3

Q-No: 14

a) Write the names and advantages of COX2 selective Inhibitors. 2

b) Give clinical uses and adverse effects of Chloroquine 3

Q-No: 15

a) Enumerate three prostaglandins and their clinical uses. 3

b) Give drug treatment of mushroom poisoning. 2