

1224 E426

Second Year MBBS Examination

II MBBS Pharmacology Paper 1

Time: 3 hours

Max Marks: 100

Instructions:

1. Answer to the points.
2. Figure to the right indicates marks.
3. Use separate answer books for each section.
4. Draw diagrams wherever necessary.
5. Write legibly.

Section 1

1. Answer any one of the following

a)

(10)

Enumerate different classes of drug receptors. Explain their transducer mechanisms with appropriate examples. (3+5+2=10)

b)

Classify anti-depressants. Write in detail about mechanism of action, clinical uses and adverse effects of selective serotonin reuptake inhibitors. (4+6=10)

2. Answer Any Two of the following:

a) (2x6=12) (12)

A 25 year old lady is brought with complains of recurrent episodes of fits lasting for 2-3 minutes. She experiences aura before each episode. Description of fit by the husband corresponds to generalized tonic clonic seizure.. Enumerate drugs used in Epilepsy. Explain the mechanism of action, therapeutic uses, adverse effects and Drug interactions of Phenytoin.

b)

Mr gupta, a 65 yrs old male patient is diagnosed as a case of prostate cancer with multiplemetastasis in spine and skull. He is on palliative care and often complains pain in whole body. The senior professor on rounds, instructed the students to show utmost care and empathy towards Mr Gupta. What is empathy ? Enumerate few ways to express empathy towards patients.

c)

A 56-year-old man has hypertension and an enlarged prostate, which biopsy shows to be benign prostatic hyperplasia. He complains of urinary retention. What is the most appropriate initial drug therapy. Classify alpha adrenergic blocking drugs. Enumerate their therapeutic uses.

3. Write short notes on any three of the following:

a)

(3x6=18) (18)

Bioavailability

b)

Atracurium

c)

Preanaesthetic Medication.

d)

Second gas effect and diffusion hypoxia

4. Answer any five of the following briefly:

a)

(2x5=10) (10)

Tachyphylaxis.

b)

Mirabegron.

c)

Therapeutic Drug Monitoring.

d)

Mechanism of action of Local Anaesthetics.

e)

Non Benzodiazepine Hypnotics

f)

Serotonin syndrome.

Section 2

5. Answer any one

a)

(10)

Classify Diuretics. Mention their pharmacological actions. Describe indications for use of high ceiling diuretics. (3+4+3=10)

b)

Describe the pharmacological basis for use of beta blockers in Acute coronary syndrome. Describe the indications, adverse effects and contraindications of Propranolol. (4+2+2+2=10)

6. Answer Any Two of the following:

a)

(2x6=12) (12)

A 52-year-old woman presented with

intense pain, warmth, and redness in the first toe on her left foot.

Examination of fluid withdrawn from the inflamed joint revealed crystals of uric acid. How will you manage the acute attack. Describe uric acid synthesis inhibitors

b)

A 65-year-old man was diagnosed with deep-vein thrombosis. The patient was treated with heparin in bolus. One hour later, a profuse bleeding developed on the intravenous site. The heparin therapy was suspended, but the bleeding continued. What drug would you administer? Describe its pharmacological basis.?

c)

A 69 year-old man visits for follow-up chronic congestive heart failure. He has a marked reduction in his ejection fraction following myocardial infarction. He also has hypertension

and type II diabetes mellitus. His symptoms include dyspnea on exertion, orthopnea, paroxysmal nocturnal dyspnea, and peripheral edema. His renal function is normal. He is put on appropriate diabetes treatment, along with angiotensin-converting enzyme (ACE) inhibitor and a loop diuretic. You decide to add digoxin to his regimen. What is the effect of digoxin on the failing heart? What are the side effects and toxicities of digoxin?

7. Write short notes on Any three of the following:

a) (3x6=18) (18)

HMG-CoA reductase inhibitors

b)

Direct thrombin inhibitors

c)

Renal epithelial sodium channel inhibitors

d)

Selective COX inhibitors.

8. Answer why, any five of the following briefly:

a)

(2x5=10) (10)

Verapamil should not be given with beta blockers.

b)

NSAIDs diminish the action of high ceiling diuretics.

c)

Hypokalaemia enhances digitalis toxicity.

d)

Statins are advised to be taken at bed time.

e)

Isoniazid therapy produces pyridoxine deficiency

f)

Chronic use of amiodarone can

induce hypothyroidism.

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