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MANIPAL ACADEMY OF HIGHER EDUCATION
SECOND MBBS DEGREE EXAMINATION – NOVEMBER 2023
SUBJECT: PHARMACOLOGY – PAPER I (ESSAY)
(OLD REGULATION - 2018-19 & PRIOR BATCH)

Tuesday, November 14, 2023

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

✍ **Answer ALL the questions.**

- 1A. Explain the actions of adrenaline on cardiovascular system and explain four uses of adrenaline.
- 1B. Write briefly on nasal decongestants.

(4+4+2 = 10 marks)

2. An elderly lady complained of calf pain in the legs and swelling in lower limbs. Doppler of both the legs was done. She was diagnosed as a case of deep vein thrombosis and was put on anticoagulants.

- 2A. Explain the mechanism of action, uses and adverse effects of warfarin.
- 2B. Name two low molecular weight heparins. Mention four advantages of low molecular weight heparin over unfractionated heparin
- 2C. Write briefly on protamine sulfate.

(5+3+2 = 10 marks)

3. **Answer the following:**

- 3A. Explain receptor upregulation and downregulation with suitable examples.
- 3B. Explain any four factors that modify drug action with suitable examples.
- 3C. Explain the terms:
i) Informed consent ii) Blinding in a clinical trial
- 3D. Name two expectorants and two antitussives. Explain the mechanisms of action of an expectorant and of an antitussive.
- 3E. Write advantages and disadvantages of oral and sublingual route.
- 3F. Classify beta blockers with suitable examples. Explain the drug interaction between propranolol and insulin.
- 3G. Explain the mechanism of action of sumatriptan. Name four drugs used in the prophylaxis of migraine.
- 3H. Explain two uses of prostaglandin analogues with an example for each use.
- 3I. Classify the drugs used in angina pectoris with suitable examples.
- 3J. Explain the mechanism of action and adverse effects of digoxin.
- 3K. Name two angiotensin converting enzyme inhibitors. Explain two uses and one adverse effect.
- 3L. Write briefly on amiodarone.
- 3M. Name two antiemetics of different classes. Explain their mechanisms of action and list one adverse effect for both.
- 3N. Classify drugs used in peptic ulcer with suitable examples.
- 3O. Write briefly on mast cell stabilizers.

(4 marks × 15 = 60 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION
SECOND MBBS DEGREE EXAMINATION – NOVEMBER 2023

SUBJECT: PHARMACOLOGY – PAPER II (ESSAY)

(OLD REGULATION - 2018-19 & PRIOR BATCH)

Thursday, November 16, 2023

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

☞ **Answer ALL the questions.**

☞ **Long essay**

1. 35-year-old man weighing 65 kg with normal serum creatinine was diagnosed with HIV-1 infection.

1A. What is the standard regimen recommended for this patient?

1B. Classify antiretroviral drugs with suitable examples.

(4+6 = 10 marks)

2. A 62-year-old lady presented with pain in both knees, more on left side. The pain is worsened by standing or walking for some time. X-ray of knee shows narrowing of joint space, mild effusion and osteophytic projections. A diagnosis of osteoarthritis of knee is made.

2A. Name the four NSAIDs that will be suitable for relieving her knee pain?

2B. Explain the mechanism of action and adverse effects of NSAIDs.

2C. Add a note on topical NSAIDs.

(2+(2+4)+2 = 10 marks)

3. **Answer the following:**

3A. Write briefly on superinfection with two suitable examples.

3B. Mention two indications for use of rifampicin. Explain its mechanism of action and enlist its adverse effects.

3C. List two advantages of liposomal amphotericin B over conventional preparation. Explain two uses of amphotericin B.

3D. Explain the mechanism of action, uses and adverse effects of methotrexate.

3E. Write briefly on shared features of aminoglycoside antibiotics.

3F. Explain the adverse effects and contraindications of oral contraceptive pills.

3G. Compare and contrast propylthiouracil and carbimazole.

3H. List the types of insulin preparations and insulin analogues based on the duration of action with examples.

3I. Explain four uses of corticosteroids.

3J. Describe the mechanism of action and precautions during the use of bisphosphonates

3K. Explain the contraindications of morphine. Add a note on acute morphine poisoning.