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MANIPAL UNIVERSITY
MELAKA MANIPAL MEDICAL COLLEGE (MANIPAL CAMPUS)
MBBS PHASE – I STAGE – II DEGREE EXAMINATION – FEBRUARY/MARCH 2019
SUBJECT : PHARMACOLOGY – PAPER – I (ESSAY)

Saturday, March 02, 2019

Time : 9.30 a.m.- 11.30 a.m.

Max. Marks : 60

✓ **Answer all the questions**

✓ **Draw diagrams wherever appropriate**

1. A 40 year old male who was on combination therapy for tuberculosis complains to his doctor that he is passing orange red coloured urine and also experiencing tingling and numbness in the upper extremities.
 - 1A. Identify the drug responsible for urine discoloration and explain its mechanism of action.
 - 1B. Mention the drug responsible for tingling and numbness and describe how it could have been prevented.

(2.5+1.5 = 4 marks)
2. List two non-selective beta blockers and mention their two contraindications.

(2 marks)
3. Define bioavailability and mention two factors affecting bioavailability.

(2 marks)
4. List two second generation antihistaminics and mention their two advantages over first generation antihistaminics.

(2 marks)
5. Explain the mechanism of action of warfarin and list its two adverse effects.

(3 marks)
6. Explain how the pH of the urine affects the renal excretion of the drug.

(2 marks)
7. Describe second gas effect with a suitable example.

(2 marks)
8. List two drugs used to treat parkinsonism and explain the mechanism of action of any one of them.

(3 marks)

9. Explain the mechanism of action of chlorpromazine. (2 marks)
10. Mention two drugs each effective in treating H1N1 infection and inflammatory bowel disease. (2 marks)
11. List four drugs of different classes that can be used to arrest the progression of congestive heart failure. (2 marks)
12. Mention two differences between domperidone and metoclopramide. (2 marks)
13. Explain the pharmacological basis for the combined use of the following drugs:
13A. Sulfamethoxazole with trimethoprim for urinary tract infection
13B. Gentamicin with benzathine penicillin in subacute bacterial endocarditis
13C. Nafarelin with flutamide in prostatic carcinoma (3 x 2 = 6 marks)
14. List two drugs belonging to the following groups:
14A. Plasma expanders
14B. Alkylating agents
14C. Fibrinolytics
14D. Anticholinesterases
14E. Alpha blockers (5 x 1 = 5 marks)
15. A 50 year old milkman presents with a history of chest pain whenever he climbs the stairs. He is not able to localize it and tells that the pain sometimes radiates to his lower jaw. The pain is relieved within 5-10 minutes when he takes rest.
Mention a drug that can be used to reduce the above acute pain and explain how it is useful. (4 marks)
16. Explain first order kinetics with an example. (2 marks)
17. Describe "Radical cure" in malaria with the drugs used. (3 marks)

18. Mention two therapeutic uses of metronidazole along with the causative organisms. (2 marks)
19. Describe two methods for prolonging the action of a drug with suitable examples. (2 marks)
20. Explain the antimanic action of lithium carbonate. (2 marks)
21. Explain the mechanism of action of metformin. (2 marks)
22. Describe chemoprophylaxis with an example. (2 marks)
23. Describe the anti-inflammatory action of glucocorticoids. (2 marks)

