DATE: 10TH MARCH 2022 TIME: 9.30 A.M. – 12.30 P.M.

Part B – 04 Structured Essay Questions (Marks assigned will be calculated to 60 marks)

1. Mrs. DN is a 48-year-old woman, recently diagnosed with breast cancer. She is on epirubicin, fluorouracil and cyclophosphamide. The clinic book indicates that this is an adjuvant treatment.

   1.1. Define the terms given below. (06 marks)

   1.1.1. Primary induction chemotherapy

   1.1.2. Neoadjuvant chemotherapy

   1.1.3. Adjuvant chemotherapy

   1.2. List five (05) delayed adverse effects of cytotoxic drugs. (10 marks)

   1.3. Briefly explain the mechanism of action of epirubicin. (20 marks)

   1.4. Briefly describe the mechanisms of resistance to cyclophosphamide. (14 marks)

2. According to Sri Lanka Medical Association's infectious diseases guidelines, "amoxicillin or tetracycline or erythromycin" is indicated in the management of exacerbations of chronic bronchitis.

   2.1. Briefly explain the mechanism of action of amoxicillin. (20 marks)

   2.2. Explain why tetracyclines are contraindicated in pregnancy. (08 marks)

   2.3. Briefly describe the drug interaction of theophylline and erythromycin. (08 marks)

   2.4. Write a brief note on antibiotic stewardship. (14 marks)

3. Mrs. CB is a 28-year-old woman with epilepsy that is currently well controlled with valproic acid. She is planning to get pregnant for the first time.

   3.1. List five (05) medicines other than valproic acid that are indicated for epilepsy. (05 marks)

   3.2. Briefly explain the cellular mechanisms by which the anti-epileptic drugs exert their action. (20 marks)

   3.3. Outline the management of status epilepticus. (15 marks)

   3.4. The pharmacist directed Mrs. CB to a doctor to discuss her need of getting pregnant.

   3.4.1. Why would getting pregnant while on valproate be a concern? (04 marks)

   3.4.2. Describe the important considerations in the management of epilepsy in women of child bearing age. (06 marks)

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4. Mr. J is a 22-year-old man who tested positive for HIV. He is started on antiretroviral drugs.

   4.1. List five (05) antiretroviral medicines. (05 marks)

   4.2. Explain the mechanism of action of "nucleoside reverse transcriptase inhibitors" used in HIV treatment. (20 marks)

   4.3. Briefly describe the HAART protocol indicated in HIV/AIDS. (15 marks)

   4.4. Briefly discuss the advantages and disadvantages of prescribing HAART. (10 marks)