Title: Repeated 10 Mark Questions - TNMMU Medicinal Chemistry III

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1. **Define and classify anti-tubercular agents. Write about the synthesis and mechanism of action of Isoniazid (or Isoniozid) and Para amino salicylic acid.**
2. **Define combinatorial chemistry. Write about solid phase (or solution phase) synthesis and applications of combinatorial chemistry.**
3. **Write the nomenclature, classification, and Structure Activity Relationship (SAR) of Tetracycline (including chemistry, degradation, and mechanism of action variations).**
4. **Discuss briefly about chemistry, classification, and SAR of Sulfonamides (or sulphonamides, including mechanism of action).**
5. **Write about the physico-chemical parameters used in Quantitative Structure Activity Relationship (QSAR) studies (including lipophilic parameters, electronic descriptors, Hammet's electronic parameter, and Hansch analysis).**
6. **Write about the nomenclature, classification, and degradation (or chemistry and SAR) of penicillin.**
7. **Define Anti-malarial (or Antimalarial) drugs. Write about its classification and synthesis of Chloroquine and Pamaquine (or pamaquine).**
8. **Discuss the chemistry, mechanism of action, SAR, and synthesis of Chloramphenicol.**
9. **Classify antibiotics. Explain in detail about the chemistry and SAR of cephalosporins (or Cephalosporins).**
10. **Write the classification of Anti-viral drugs with suitable examples. Explain the synthesis and mechanism of Acyclovir (or enumerate the synthesis of any one antiviral drug).**

Title: Repeated 5 Mark Questions - TNMMU Medicinal Chemistry III

1. **Write a short note on Beta lactamase (or β-lactamase) inhibitors.**
2. **Basic concepts (or applications) of prodrug design (or various approaches of prodrug design).**
3. **Write a note on Macrolide antibiotics (or short notes on macrolide antibiotics).Write a short note on Taft's steric parameter.**
4. **Write a note on pharmacophore modeling (or pharmacophore and modeling techniques).**
5. **Discuss about Structure activity relationship (SAR) of Quinolones (or short notes on SAR of Quinolone antibacterials).**
6. **Write about synthesis and uses of Chloramphenicol (or structure, synthesis and uses of chloramphenicol).**
7. **Write a note on Aminoglycosides (or MOA and SAR of aminoglycosides).**
8. **Write the synthesis, mechanism of action and uses of Sulfacetamide (or sulphacetamide sodium).**
9. **Classify Antiprotozoal (or Anti-protozoal) agents (or write a short note on anti protozoals).**
10. **Molecular docking techniques.**
11. **Write about synthesis and uses of Nitrofurantoin (or synthesis of Nitrofurantoin).**
12. **Hansch analysis.**

14. **Give a note on Azole antifungals (or discuss briefly the SAR of azole antifungals).**
15. **Describe the structure and mechanism of action of Metronidazole (or MOA of Metronidazole).**
16. **Write the classification and SAR of penicillin antibiotics.**
17. **Synthesis of Chloroquine (or structure, synthesis and uses of Chloroquine).**
18. **Enumerate the synthesis of metronidazole (or synthesis of Metronidazole, or structure, synthesis and uses).**
19. **Write short notes on anthelmintics (or define and classify Anthelmintics).**
20. **Partition coefficient (or partition coefficient and Hammet's electronic parameter).**

21. **Chemistry, Mechanism of action and uses of Amphotericin B (or structure and MOA of Polyene antifungal antibiotics).**
22. **Synthesis of Mebendazole.**
23. **Synthesis of Sulphamethoxazole (or Sulfamethoxazole).**

REPEATED 2 MARKS (TNMMU)

1 **Define partition coefficient.**

2 **Molecular docking (or what is molecular docking?).**

3 **Write the structure and use of Methanamine.**

4 **Write the structure of Amantadine Hcl (or Amantadine hydrochloride).**

5 **Define Anthelmintics (or define anthelmintics with examples).**

6 **Combinatorial chemistry (or define Combinatorial Chemistry along with any two applications).**

7 **Mechanism of action of Erythromycin (or Clarithromycin).**

8 **Write the synthesis of nitrofurantoin.**

9 **What are beta lactamase inhibitors?**

10 **Write the structure and uses of para amino salicylic acid.**

11 **Mechanism of Penicillin (or MOA of penicillin).**

12 **Define Pharmacophore.**

13 **Write the structure and use of Dapsone.**

14 **Classify antiprotozoal agents (or Anti – Protozoal agents).**

15 **MOA of tetracyclines.**

16 **Structure and uses of Rifampicin (or Rifampicin).**

17 **Classify antiprotozoal agents (duplicate check, merged with 14).**

18 **Write the structure and uses of Diethyl carbamazepine citrate (or Diethylcarbamazine citrate, DEC).**

19 **Write a note on β- Lactamase inhibitors (overlaps with 9).**

20 **Define prodrug with example (or types of prodrugs, or give an account on prodrug design).**

21 **Classify macrolides with examples.**

22 **Write the structure and use of nalidixic acid (or Nalidixic acid).**

23 **Give an account on benzimidazole anthelmintics.**

24 **Write the structure and uses of Griseofulvin and Fluconazole.**

25 Structure and uses of dapsone (overlaps with 13).

26 **Structure and uses of Norfloxacin.**

27 **Define docking.**