

(3 Hours)

Total Marks: 75

- N.B.: (1) All questions are **compulsory**.
(2) Figures on the right indicate full marks.

Q I. Choose the ONE best answer and write it down

20 M

Penicillins act by:

- A. Inhibiting cell wall synthesis of bacteria
- B. Inhibiting DNA gyrase
- C. Inhibiting 30S ribosomal unit
- D. Inhibiting folic acid synthesis

2. What is meant by antibiotic resistance?

- A. It means our body has become resistant to the antibiotic
- B. It means the bacteria have developed resistance for the antibiotic
- C. It means that the antibiotic concentration has to be elevated
- D. It means that our body has become resistant to the antibiotic's side effects

3. The benefit of bulk forming laxatives is:

- A. That they are not absorbed from the intestines into the body so are safe for long-term use
- B. They are potent laxatives
- C. They are quick in action
- D. They may be used safely in patients with kidney failure

4. Amphetamine acts by:

- A. Enhancing serotonin levels in brain
- B. By antagonizing cannabinoid receptors
- C. By increasing the bulk in diet
- D. Stimulating norepinephrine release or blocking its reuptake

5. Montelukast inhibits which receptors?

- A. Histamine
- B. Leukotriene
- C. PAF
- D. Bradykinin

6. The drug ambroxol is prescribed as:

- A. Bronchial secretion enhancer
- B. Alpha-2 adrenergic antagonist
- C. Mucolytic
- D. Respiratory stimulant

7. Ratio of sulphamethoxazole and trimethoprim in cotrimoxazole is:

- A. 5:1
- B. 1:5
- C. 4:1
- D. 1:4

8. An adverse reaction to chloramphenicol in neonates is:

- A. Ototoxicity
- B. Nephrotoxicity
- C. Gray Baby syndrome
- D. Crystalluria

9. Triple drug therapy used as immunosuppressant consists of:

- A. Cyclosporine+ Azathioprine+ Prednisolone
- B. Cyclosporine+ Methotrexate+ Prednisolone
- C. Tacrolimus+ Methotrexate+ Prednisolone
- D. Cyclosporine+ Azathioprine+ Methotrexate

10. Which of the following is triazole class of antifungal drug?

- A. Clotrimazole
- B. Fluconazole
- C. Ketoconazole
- D. Miconazole

11. Which of the following is a characteristic of acute toxicity?

- A. Slowly occurring
- B. Slowly changing
- C. Sudden in onset
- D. Persistent over months

12. The antineoplastic agent that is classified as an alkylating agent is:

- A. Vincristine
- B. Tamoxifen
- C. Bleomycin
- D. Busulfan

13. A side effect of ethambutol is:

- A. Neurotoxicity
- B. Nausea, vomiting and diarrhea
- C. Hypersensitivity and urticarial
- D. Loss of color vision due to optic neuritis

14. Anti-IgE monoclonal antibody used in bronchial asthma is:

- A. Mepolizumab
- B. Omalizumab
- C. Keliximab
- D. Altrakincept

15. Carcinogenicity due to cigarette smoking is an example of:

- A. Acute toxicity
- B. Chronic toxicity
- C. Sub-acute toxicity
- D. Sub-chronic toxicity

16. The anthelmintic drug piperazine:

- A. Inhibits tubulin polymerization
- B. Inhibits glucose uptake
- C. Acts as a GABA agonist to paralyze the worms
- D. Uncouples oxidative phosphorylation

17. British anti lewisite is used as an antidote for:

- A. Arsenic poisoning
- B. Silver poisoning
- C. Mercury poisoning
- D. Lead poisoning

18. Melatonin plays a role in:

- A. Hunger
- B. Digestion
- C. Growth
- D. Sleep cycle

19. The risk of asthmatic attacks is higher between:

- A. 4.00 am-5.00 am
- B. 5.00pm-6.00 pm
- C. 11.00 am-12 noon
- D. 11.00 pm -12.00 am

20. Which of the following is a mechanism for multidrug resistance in cancer chemotherapy?

- A. Decreased activity of DNA repair pathways
- B. Decreased sensitivity of dihydrofolate reductase
- C. Increased synthesis of cell surface glycoprotein P-170
- D. Increased receptor affinity to the drug

Q. II. Answer any TWO of the following:

20 M

1. Classify appetite suppressant drugs with their mechanism of action and adverse effects.
2. Write a short note on the aminoglycoside class of antibiotics mentioning classification with examples, mechanism of action, adverse effects and clinical uses.
3. Discuss about the site of action of antimalarial drugs. Elaborate on the mechanism of action, adverse effects and uses of 4-aminoquinoline drugs.

Q. III. Answer any SEVEN out of the following questions:

35 M

1. Classify drugs used in the treatment of constipation with examples. Discuss briefly the pharmacology of osmotic purgatives
 2. Write a short note on corticosteroids used in the treatment of asthma.
 3. Discuss various mechanisms by which bacteria acquire resistance against antibiotics.
 4. Write a note on first line therapy used in tuberculosis. Add a note on the mechanism of action and unwanted effects of rifampicin.
 5. Write a note on chemotherapy of amoebiasis.
 6. Classify immunosuppressant drugs with examples. Add a note on Calcineurin inhibitors.
 7. Classify anticancer agents. Describe the pharmacology of vinca alkaloids in detail.
 8. Explain mutagenicity and genotoxicity with examples. Describe is the difference between the two.
 9. Describe the symptoms and management of opioid poisoning.
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