

2106000102020102
Examination February-March 2024
SECOND MBBS
PHARMACOLOGY (PAPER - II) - LEVEL 2

[Time: Three Hours]**[Max. Marks: 100]****Instructions:****1. Fill up strictly the following details on your answer book**

- a. Name of the Examination: **SECOND MBBS**
- b. Name of the Subject: **PHARMACOLOGY (PAPER - II) - LEVEL 2**
- c. Subject Code No: **2106000102020102**

2. Sketch neat and labelled diagram wherever necessary.**3. Figures to the right indicate full marks of the question.****4. All questions are compulsory.****5. Answer should be precise and to the point.****6. Give examples and figures if needed.****7. First 20 mins have been allotted to solve multiple-choice questions.**

Seat No:

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Student's Signature

SECTION – I**Q.1 Multiple choice questions****1*20=20**

- Each question carries one mark and there is no negative marking.

1. Mechanism of action of digoxin is;
 - a. $\text{Na}^+ \text{K}^+$ ATPase pump inhibition
 - b. $\text{Na}^+ \text{H}^+$ ATPase pump inhibition
 - c. $\text{H}^+ \text{K}^+$ ATPase pump inhibition
 - d. $\text{Na}^+ \text{Cl}^-$ ATPase pump inhibition
2. Which of the following antihypertensive is NOT used in pregnancy?
 - a. Methyldopa
 - b. Nifedipine
 - c. Labetalol
 - d. Enalapril
3. Which of the following is a class III antiarrhythmic drug?
 - a. Phenytoin
 - b. Pindolol
 - c. Amiodarone
 - d. Propafenone

4. Which of the following drug causes highest increases in serum High density lipoprotein (HDL)?
 - a. Lovastatin
 - b. Gemfibrozil
 - c. Niacin
 - d. Colestipol
5. Which of the following drug is preferentially a venodilator?
 - a. Hydralazine
 - b. Minoxidil
 - c. Nifedipine
 - d. Nitroprusside
6. Captopril causes all of the following adverse reactions EXCEPT
 - a. Dry cough
 - b. Hypokalemia
 - c. Angioedema
 - d. Dysgeusia
7. All of the following antiplatelet drugs are GpIIb/IIIa antagonist EXCEPT:
 - a. Prasugrel
 - b. Abciximab
 - c. Tirofiban
 - d. Eptifibatide
8. Filgrastim is used in treatment of:
 - a. Anemia
 - b. Neutropenia
 - c. Thrombocytopenia
 - d. Polycythemia
9. Which of the following antithyroid drug is relatively safer in first trimester of pregnancy?
 - a. Methimazole
 - b. Propylthiouracil
 - c. Amiodarone
 - d. Carbimazole
10. Drug used in induction of ovulation is:
 - a. Clofibrate
 - b. Clomiphene
 - c. Clozapine
 - d. Clevidipine
11. Corticosteroids are contraindicated in all of the following EXCEPT:
 - a. Congestive heart failure
 - b. Ileocecal tuberculosis
 - c. Bronchial asthma
 - d. Peptic ulcer
12. Most common toxicity of bisphosphonates used in therapy of osteoporosis is:
 - a. Esophageal irritation
 - b. Osteonecrosis of jaw
 - c. Chalkstick fracture of femur
 - d. Osteomalacia

13. Which of the following is adverse effect of Cyclophosphamide?
- Cardiomyopathy
 - Neuropathy
 - Convulsion
 - Hemorrhagic cystitis
14. Cyclosporine inhibits proliferation of which of the following cells:
- T Cells
 - B cells
 - Both T cells & B cells
 - NK cells
15. The persistent suppression of bacterial growth after limited exposure to some antimicrobial drug is called:
- Time dependent killing
 - Concentration dependent killing
 - Post-antibiotic effect
 - Quorum sensing
16. Aminoglycosides can cause which of the following toxicity?
- Ototoxicity
 - Nephrotoxicity
 - Neuromuscular Junction Blockade
 - All of the above
17. Cilastatin is given as fixed dose combination (FDC) with:
- Clavulanic acid
 - Amoxycillin
 - Piperacillin
 - Imipenem
18. Which of the following antitubercular drug act by inhibiting mycobacterial ATP synthase?
- Linezolid
 - Levofloxacin
 - Ethambutol
 - Bedaquiline
19. Which of the following is not an indication of Metronidazole?
- Neurocysticercosis
 - Pseudomembranous colitis
 - Giardiasis
 - Amoebiasis
20. Ondansetron act as an antiemetic by its which of the following action?
- Substance P antagonism
 - D₂ receptor antagonism
 - 5-HT₃ receptor antagonism
 - Cannabinoid (CB₁) receptor antagonism

Q.2 Answer in short [any five]:**3*5=15**

- Enumerate drugs used in pharmacotherapy of peptic ulcer. Describe mechanism of action of proton pump inhibitors (PPIs).

- b. What is antimicrobial drug resistance? Describe mechanisms underlying antimicrobial drug resistance.
- c. Elaborate two prolactin inhibitors giving their uses and adverse effects.
- d. Write the mechanism of actions and adverse reactions of tetracycline.
- e. Enlist drugs used in osteoporosis. Write mechanism of action and two adverse reactions of bisphosphonates.
- f. What is informed consent? Explain its importance in clinical practice with an example.

Q.3 Write answers in details [any three]:

5*3=15

- a. Discuss role of nitrates in angina pectoris.
- b. Describe the mechanism of action and therapeutic uses of ACE inhibitors.
- c. Enumerate oral iron preparation. Describe adverse effects and drug interactions of oral iron therapy.
- d. Pharmaco-therapy for urinary tract infection (UTI).

Q.4 Answer the following questions based on the given case scenario:

10*1=10

A 35-year-old female patient had recurrent episodes of nose bleed accompanied by severe headache since last few days. On examination his blood pressure and pulse were 170/90 mm of Hg and 100/minute, respectively. The diagnosis is essential hypertension.

- | | |
|---|---|
| a. Write drug therapy for managing this patient. | 4 |
| b. Describe the mechanism of action and two adverse drug reactions to chosen drugs. | 4 |
| c. Describe drugs used for treatment of hypertension in pregnancy? | 2 |

SECTION – II

Q.5 Write answers in short [any five]:

3*5=15

- a. Describe advantages of Low molecular weight heparin (LMWH) over unfractionated heparin (UFH).
- b. Describe the rationale of 'Boosted PI regimen' in pharmacotherapy of HIV.
- c. Write a short note on low dose aspirin.
- d. What is counterirritation? Describe various counterirritants used topically for relieving muscular pain.
- e. Write rationale of combining aluminium hydroxide and magnesium hydroxide as antacids.
- f. Describe mechanism of action of penicillin in treatment of gram-positive bacterial infection. Enumerate its clinically important adverse reactions.

Q.6 Write answers in details [any three]: **5*3=15**

- Write a short note on thiazides.
- Outline pharmacotherapy of hyperthyroidism.
- Describe adverse drug reactions of corticosteroids.
- Mention mechanism of action and uses of fluoroquinolones.

Q.7 Answer the following questions based on the given case scenario: **10*1=10**

A 21-year-old lady from Orissa presents in clinic with a history of fever, anorexia and weakness since last two days. Fever is intermittent in nature accompanied by chills & rigors. Blood smear examination showed *P. falciparum*. The diagnosis is *P. falciparum* malaria.

- Mention suitable drug therapy for this patient. **3**
- Explain the rationale behind artemisinin-based combination therapy (ACT). **4**
- Enumerate two drugs used for chemoprophylaxis of malaria along with their adverse reactions. **3**
