

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

Q.2 Answer in short [any five]:

3*5=15

- a. 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**
- a. Write a short note on thiazides.
 - b. Outline pharmacotherapy of hyperthyroidism.
 - c. Describe adverse drug reactions of corticosteroids.
 - d. 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 Orrisa 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.

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