

2106000102020102-S
EXAMINATION MARCH-APRIL 2024
BACHELOR OF MEDICINE AND BACHELOR OF SURGERY
(SECOND YEAR)
PHARMACOLOGY (PAPER - II) - LEVEL 2 OMR

[Time: As Per Schedule]

[Max. Marks:100]

Instructions:

1. Fill up strictly the following details on your answer book

- a. Name of the Examination : **BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (SECOND YEAR)**
 - b. Name of the Subject : **PHARMACOLOGY (PAPER - II) - LEVEL 2 OMR**
 - c. Subject Code No : **2106000102020102-S**
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. Answers 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 1

Q.1 Multiple choice questions

1*20 =20

Instructions:

- 1) Encircle the single most appropriate answer
- 2) Each question carries one mark and there is no negative marking.
- 3) Overwriting is not allowed.

1. All of the followings are first line antihypertensive as per Joint National Committee 8 (JNC-8) guidelines EXCEPT:
 - a. ACE inhibitors
 - b. Beta blockers
 - c. Calcium channel blockers
 - d. Diuretics
2. Digoxin is obtained from which of the following plant:
 - a. Claviceps purpurea
 - b. Rauwolfia serpentina
 - c. Papaver somniferum
 - d. Digitalis lanata
3. Which of the following is a high ceiling diuretic?
 - a. Furosemide
 - b. Thiazide
 - c. Acetazolamide
 - d. Spironolactone

4. Which of the following is a direct renin inhibitor?
- a. Valsartan
 - b. Enalapril
 - c. Sacubitril
 - d. Aliskiren
5. A 25-year-old female patient was treated with an antihypertensive and developed hirsutism. The most likely drug is:
- a. Minoxidil
 - b. Methyldopa
 - c. Enalapril
 - d. Fenoldopam
6. Atorvastatin acts by which of the following mechanism:
- a. Cholesterol absorption inhibitor
 - b. Lipoprotein lipase inhibitor
 - c. HMG-CoA reductase inhibitor
 - d. Bile acid sequestrants
7. Octreotide is used in which of the following condition:
- a. Acromegaly
 - b. Osteoarthritis
 - c. Pancreatitis
 - d. Constipation
8. Which of the following drug can be used in treatment of both type 1 as well as type 2 diabetes mellitus?
- a. Metformin
 - b. Pramlintide
 - c. Sitagliptin
 - d. Glipizide
9. All of the following are adverse effects of oral contraceptives EXCEPT
- a. Irregular menstrual bleeding
 - b. Headache
 - c. Thrombosis
 - d. Increased risk of ovarian cancer
10. Which of the following is a uterine relaxant?
- a. Ritodrine
 - b. Yohimbine
 - c. Prazosin
 - d. Propranolol
11. Which of the following is an iron chelating agent?
- a. D-penicillamine
 - b. Desferioxamine
 - c. Dimercaprol
 - d. Succimer

12. Clopidogrel is an antiplatelet drug that acts by:
- a. Inhibits GPIIb/IIIa
 - b. Inhibit phosphodiesterase
 - c. Inhibit ADP induced platelet aggregation
 - d. Inhibit cyclooxygenase
13. Which of the following antineoplastic and immunosuppressant drugs is a dihydrofolate reductase inhibitor?
- a. Adriamycin
 - b. Methotrexate
 - c. Vincristine
 - d. Cyclophosphamide
14. Which of the following drug causes Red man syndrome?
- a. Rifampicin
 - b. Polymixin
 - c. Vancomycin
 - d. Teicoplanin
15. Which of the following antimicrobial is used in treatment of Clostridium difficile associated diarrhea?
- a. Metronidazole
 - b. Ciprofloxacin
 - c. Clindamycin
 - d. Piperacillin
16. Which of the following is not a semi-synthetic penicillin?
- a. Penicillin G
 - b. Penicillin V
 - c. Amoxicillin
 - d. Methicillin
17. Ethambutol should be used very cautiously in childhood tuberculosis due to its:
- a. Ocular toxicity
 - b. Renal toxicity
 - c. Hepatotoxicity
 - d. Neurotoxicity
18. All of the followings are antifungal drugs EXCEPT:
- a. Caspofungin
 - b. Clofazimine
 - c. Clotrimazole
 - d. Ciclopirox
19. Acyclovir is drug used in:
- a. HIV infection
 - b. HBV infection
 - c. Herpes infection
 - d. Plasmodium infection
20. Which of the following drug has both 5HT₄ and D₂ receptor antagonist property?

- a. Ondansetron
- b. Domperidone
- c. Metoclopramide
- d. Doxylamine

Q.2 Answer in short [any five]:

3*5 =15

- a. Describe role of low osmolarity ORS in treatment of diarrhoea.
- b. What is superinfection? Enlist two drugs producing superinfection. Describe Importance of rational use of antimicrobials in this context.
- c. Enumerate various third generation cephalosporins. Write down their Therapeutic applications.
- d. Describe mechanism of action of warfarin in prevention of blood Coagulation. Enlist its adverse reactions and one clinically important drug interaction.
- e. Justify fixed dose combination of ethinyl estradiol and levonorgestrel used as an oral contraceptive pill.
- f. Describe drugs used in peptic ulcer along with their mechanisms of action.

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

5*3 =15

- a. Describe mechanism of action and adverse reactions of ACE inhibitors in Pharmacotherapy of hypertension. Write two contraindications of the same.
- b. Write a short note on potassium sparing diuretics.
- c. Describe therapeutic uses of corticosteroids.
- d. Outline pharmaco-therapy for psoriasis.

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

10*1 =10

A 45-year-old male patient presented with complaints of acute pain and tightness over middle part of chest. The pain was felt episodically after climbing stairs or while having sexual intercourse. On examination, his pulse was 110/min, respiration 20/min, and BP 130/86 mm of Hg. The diagnosis was acute angina pectoris.

- a. Write drug therapy for managing this patient. 2
- b. Describe the mechanism of action and adverse drug reactions of chosen drug. 4
- c. What precautions should be observed to prevent glyceryl trinitrate tolerance? Enumerate two other uses of nitrates in clinical practice. 3
- d. Describe one clinically important drug interaction of glyceryl trinitrate. 1

Section II

Q.5 Write answers in short [any five]: 3*5 = 15

- a. Describe the mechanism of action and adverse effects of amphotericin B in Systemic mycosis.
- b. Enumerate differences between Carbimazole and propylthiouracil used in the management of hyperthyroidism.
- c. Mention mechanism of action and ADRS of digoxin.
- d. Enumerate indications of parenteral iron preparations. Describe their adverse effects and significance of Z-track technique for intramuscular injection in this regard.
- e. Enlist hypolipidemic drugs. Describe mechanism of Statins in dyslipidemia along with two adverse effects.
- f. Enlist various penicillin preparations. Describe clinically important adverse effects of penicillin.

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

- a. Define chemotherapy. Describe general toxicity of cytotoxic drugs used in cancer chemotherapy
- b. Discuss in details uses and ADRs of aminoglycosides.

- c. Outline the pharmacotherapy for *P. vivax* malaria with a special mention of Radical cure.
- d. Describe in detail treatment of HIV infection.

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

A 21-year-old female presents in clinic with a 4-week history of anorexia, weakness, weight loss and cough and evening rise of temperature. Sputum culture & CBNATT is positive for *M. tuberculosis*. The diagnosis is a new case of pulmonary tuberculosis.

- a. Mention drug therapy for this patient. **3**
- b. After 15 days of therapy, the patient complains of nausea, vomiting, and loss of appetite along with jaundice. Identify the reason for manifestation. **1**
- c. What is MDR TB & XDR TB? Name two newer antitubercular drugs **3**
- d. If the patient is on oral contraceptives, what would be your suggestion to the Patient? Why? **3**
