



All India Institute of Medical Sciences, Kalyani
B.Sc. (Hons) Nursing Second Year Supplementary Examination, April 2024
Time: 3 Hrs. PHARMACOLOGY Marks: 75

INSTRUCTIONS:

- Draw diagram wherever necessary

SECTION-A

Answer any **THREE** of the following:

[3×10=30]

1. A patient presented to the OPD with complaints of not mingling with people, loss of interest, hopelessness, loss of sleep from past 6 months. On detailed history and examinations, physician diagnosed it as depressive disorder. (2+4+4)
 - a. Classify the drugs used for treatment of depression.
 - b. Write the mechanism of action, uses and adverse effects of selective serotonin reuptake inhibitors.
 - c. Explain the role of a nurse in educating the patient and the family about the medication use and the disease

2. A patient has presented to the emergency department with complaints of pain and tightness in the chest associated with sweating. ECG suggestive of ST elevation and diagnosed as myocardial ischaemia. (2+4+4)
 - a. Enumerate the drugs that can be prescribed to the above patient.
 - b. Write the mechanism of action, uses and adverse effects of glyceryl trinitrate.
 - c. Explain the role of a nurse in educating the patient about the medication use and the disease

3. (2+4+4)
 - a. Enumerate the oral anti-diabetic drugs.
 - b. Explain the mechanism of action, therapeutic uses and adverse effects of Metformin.
 - c. Explain the nurse's responsibilities in educating the patient for control and management of diabetes.

4. (4+3+3)
 - a. Explain the mechanism of action, uses and adverse effects of Chloroquine.
 - b. Enumerate the regimens used for chloroquine resistant malaria.
 - c. Explain the role of nurse in educating the patient about the prevention of malaria.

SECTION-B

[5×5=25]

Answer any **FIVE** of the following:

5. Write a note on Adverse Drug Reactions and Pharmacovigilance programme of India. Explain the role of nurse in preventing the adverse drug reactions. (3+2)
 6. A 20-year-old female is planning for a road trip of 3 days, and she is a known case of motion sickness. What drugs can be prescribed to the above person to prevent emesis, explain with brief mechanism of action and type of dosage form prescribed. What advice will be given to the patient on medication use? (3+2)
 7. Enumerate the drugs used as Local Anaesthetics. Write the mechanism of action and uses of Lignocaine. (2+3)
 8. A patient presented to the emergency department with complaints of breathlessness, cough and chest tightness. On examination, wheeze and crept were observed. His SpO₂ is 90%. Enumerate the drugs used for treating the above patient with rationale. Also explain the nurse's responsibility in managing the above patient. (3+2)
 9. A 35-year-old male patient presented to the OPD with complaints of muscle weakness as the day progress and in recent days he observed the drooping of eye lids when working continuously. After the clinical examination and investigations, the physician diagnosed it as myasthenia gravis. Enumerate the drugs that can be prescribed to this patient with rationale. Write a note on the role of nurse in educating the patient about the disease and medication use. (3+2)
 10. A 25 years old male patient with complaints of unilateral headache associated with nausea diagnosed as Migraine. Enumerate the drugs that can be used for treatment of migraine as per the severity along with rationale. Explain the role of nurse in this scenario. (3+2)
 11. A 75 years old male presented to the OPD with complaints of slowness of movements, tremor and rigidity from past six months. The physician diagnosed it as Parkinson's disease. Enumerate the drugs used for treatment of the above patient. Explain the mechanism of action and adverse effects of Levodopa. (2+3)
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Enrollment No. _____

Invigilator sign: _____

SECTION C (PHARMACOLOGY)

INSTRUCTIONS:

- Section C should be answered in first 20 minutes of the Exam duration and handed over to the invigilators.
- Put one tick (✓) mark to only one answer that you consider correct for each question.
- Mark your tick (✓) in pen.

Multiple Choice Questions (MCQs):

[20×1=20]

1. Identify for the route of drug administration shown in the given image



- a. Local
b. Transdermal
c. Subcutaneous
d. Intradermal
2. Which of the following antiglaucoma drugs can cause increased growth of eye lashes?
a. Apraclonidine
b. Latanoprost
c. Pilocarpine
d. Dipivefrine
3. A truck driver is having rhinorrhoea and sneezing. Which of the below antihistaminic drug will be prescribed to him?
a. Chlorpheniramine
b. Promethazine
c. Levocetirizine
d. Pheniramine
4. Centrally acting antihypertensive drug is:
a. Phenoxybenzamine
b. Prazosin
c. Propranolol
d. Methyl dopa
5. The site of action of the furosemide is:
a. Thick ascending limb of loop of Henle
b. Descending limb of loop of Henle
c. Proximal convoluted tubule
d. Distal convoluted tubule
6. All are preferred sites of insulin administration **except**:
a. Thigh
b. Dorsum of arm
c. Buttocks
d. Around umbilicus
7. Which of the following drug is a selective Estrogen Receptor Modulator useful for treatment of osteoporosis?
a. Raloxifene
b. Alendronate
c. Strontium
d. Estradiol
8. Adverse effect of phenytoin include all of the following **except**:
a. Lymphadenopathy
b. Ataxia
c. Hypercalcemia
d. Hirsutism
9. Pre-conceptional intake of which of the following results in decrease in incidence of neural tube defects?
a. Vitamin A
b. Folic acid
c. Vitamin E
d. Vitamin C

10. All are antiplatelet drugs **except**:

- a. Aspirin
- b. Clopidogrel
- c. Dipyridamole
- d. Warfarin

11. Interaction of theophylline with ciprofloxacin is:

- a. Ciprofloxacin increases theophylline metabolism
- b. Ciprofloxacin decreases theophylline metabolism
- c. Theophylline increases ciprofloxacin metabolism
- d. Theophylline decreases ciprofloxacin metabolism

12. All of the following adverse effects are associated with the use of proton pump inhibitors **except**:

- a. Community acquired pneumonia
- b. Clostridium difficile infection
- c. Osteoporosis leading to hip fracture
- d. Hypothyroidism

13. Sulfa drug used in inflammatory bowel disease includes:

- a. Sulfasalazine
- b. Sulfamethoxazole
- c. Sulfapyridine
- d. Sulphadoxine

14. All of the following have beta lactam ring **except**:

- a. Penicillin
- b. Linezolid
- c. Cefotaxime
- d. Imipenem

15. In a chronic alcoholic patient, all of the following drugs should be avoided **except**:

- a. Cefixime
- b. Cefamandole
- c. Metronidazole
- d. Chlorpropamide

16. Nephrotoxicity is commonly seen with:

- a. Doxycycline
- b. Gentamicin
- c. Erythromycin
- d. Rifampicin

17. Prolonged treatment with Isoniazid leads to deficiency of:

- a. Thiamine
- b. Pantothenic acid
- c. Niacin
- d. Pyridoxine

18. Methotrexate is used for the management of all of these conditions **except**:

- a. Rheumatoid arthritis
- b. Psoriasis
- c. Sickle cell anaemia
- d. Organ transplantation

19. All of the following are immunosuppressive drugs **except**:

- a. Cyclosporine
- b. Cefaclor
- c. Azathioprine
- d. Steroids

20. Which of the following is incorrectly matched?

- a. Phenytoin: Cleft lip and palate
- b. Zidovudine: Cardiomyopathy
- c. Valproate: Neural tube defect
- d. ACE inhibitors: Renal defects