

KATHMANDU UNIVERSITY
End Semester Examination
May/June, 2022

Marks scored:

Level : B. Pharm.

Year : III

Exam Roll No. :

Time: 30 mins.

Course : PHAR 311

Semester : II

F. M. : 20

Registration No.:

Date :

SECTION "A"

[20Q. × 1 = 20 marks]

Encircle the most appropriate answer.

- The primary mechanism by which general anaesthetics produce their action is
 - Affecting receptor operated ion channels in cerebral neurons
 - Blocking voltage sensitive Na⁺ channels in neuronal membrane
 - Depressing metabolic activity of cerebral neurons
 - Blocking production of high energy phosphates in the brain
- The following drug is used to reverse the CNS depression produced by diazepam
 - Dexamphetamine
 - Doxapram
 - Physostigmine
 - Flumazenil
- The characteristic feature of phenytoin pharmacokinetics is
 - High first pass metabolism
 - Nonsaturation kinetics of metabolism
 - Capacity limited metabolism saturating at higher therapeutic concentration range
 - Extrahepatic metabolism
- In the treatment of parkinsonism, bromocriptine differs from levodopa in the following respects except
 - It does not need conversion to an active metabolite
 - It has a longer duration of action
 - It activates dopamine D2 receptors, with little/antagonistic action on D1 receptors
 - It does not produce behavioral/psychiatric side effects
- Which of the following is an atypical neuroleptic drug?
 - Loxapine
 - Olanzapine
 - Flupenthixol
 - Pimozide
- The following statement is correct about buspirone:
 - It interacts with benzodiazepine receptor as an inverse agonist
 - It is a rapidly acting anxiolytic, good for panic states
 - It produces physical dependence and suppresses barbiturate withdrawal syndrome
 - It has anxiolytic but no anticonvulsant or muscle relaxant property
- Low doses of aspirin prolong bleeding time by selectively inhibiting synthesis of the following mediator in the platelets:
 - Thromboxane A2
 - 5-Hydroxytryptamine
 - Platelet activating factor
 - Prostacyclin

8. Allopurinol lowers the plasma concentration of
a. Hypoxanthine b. Xanthine c. Uric acid d. All of the above
9. The mechanism of action of barbiturates differs from that of benzodiazepines in that they:
a. Do not affect the GABA-benzodiazepine receptor-chloride channel complex
b. Act as inverse agonists at the benzodiazepine receptor
c. Increase the frequency of chloride channel opening without affecting its life time
d. Have both GABA-facilitatory as well as GABA-mimetic actions
10. The organophosphate poisoning can be treated by
a. Acetylcysteine b. Ethanol c. Atropine d. Fomepizole
11. Which of the following hormones is a neural hormone?
a. Thyroxine b. Cortisol c. Vasopressin d. Insulin
12. Bromocryptine is used in all of the following cases except
a. Hyperprolactinemia b. Acromegaly
c. Parkinson's disease d. Hemophilia
13. Deficiency of vitamin B1 leads to
a. Beriberi b. Xerosis of eye c. Pellagra d. Dermatitis
14. Mifepristone can be used in all of the cases except
a. Cushing's syndrome b. Induction of labor
c. Cervical ripening d. Endometrial carcinoma
15. Sildenafil is contraindicated in all of the following **except**
a. Hypotension b. MI
c. Impaired color vision d. Hearing loss
16. Which drug acts as an antagonist at glucocorticoid receptor?
a. Ketoconazole b. Spironolactone c. Mifepristone d. Triamcinolone
17. 100µg octreotide followed by 25-50µg/hr is given to stop
a. Bleeding esophageal varices b. Steatorrhea
c. Gall stone d. Turner's syndrome
18. One of the following is the good surface anesthetic for eye
a. Ropivacaine b. Benoxinate c. Prilocaine d. Tetracaine
19. The first line of oral hypoglycemic drug for obese patient would be
a. Sulfonylureas b. Biguanides c. Meglitinide d. Glitazone
20. The mechanism of action of ^{131}I is
a. Thyroid necrosis without damaging neighboring cells
b. Inhibit its own transport
c. Inhibit iodine trapping
d. Inhibit organification of iodine

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Level : B. Pharm.
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Course : PHAR 311
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F. M. : 55

SECTION "B"

[5Q. × 3 = 15 marks]

Answer *ANY FIVE* questions.

1. Give a detail account on drug allopurinol.
2. State therapeutic indications and adverse effects of H₁ receptor antagonist.
3. Discuss the different condition in which the opioid should be taken cautiously.
4. Elaborate about the vitamin that is found in citrus fruits.
5. Write in detail about growth hormone and its inhibitor.
6. Classify thyroid inhibitors. List out the actions of thyroid hormone in the body.
7. Highlight on mechanism of action and actions of parathyroid hormone.

SECTION "C"

[5Q. × 5 = 25 marks]

Answer *ANY FIVE* questions.

8. Discuss in detail about the different factors which determines the rate at which a given concentration of anesthetic drugs reaches in the brain.
9. Write down the mechanism of action, therapeutic indication and adverse effect of tricyclic antidepressant drugs.
10. Discuss in detail how antiepileptic drugs produce its action? State in detail about the tricky kinetics of phenytoin.
11. Elaborate different pharmacological actions produced by NSAIDS. How salicylate poisoning can be managed?
12. Elaborate different methods of graded bioassay.
13. Give detail account on female hormonal contraceptives and hormone replacement therapy.
14. Elaborate in different types of insulin regimen. Give detailed account on sulfonylurea.

SECTION "D"

[2Q. × 7.5 = 15 marks]

Answer *ANY TWO* questions.

15. Elaborate on the process of new drug development.
16. List the clinical features of parkinson's disease. Classify the drugs used for Parkinson's disease. State the mechanism of actions produced by those classes of drugs. Give reasons for giving carbidopa and COMT inhibitor along with levodopa. Mention the advantage of dopamine agonist over levodopa.
17.
 - a. Mention why benzodiazepine preferred as hypnosedative drug? [3.5]
 - b. Elaborate on different techniques of administration of local anesthetics. [4]