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University Examinations 2023/2024

THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF CLINICAL MEDICINE AND COMMUNITY HEALTH

CCM 3314: CLINICAL PHARMACOLOGY AND THERAPEUTICS I

DATE: APRIL 2024

TIME: 3 HOURS

INSTRUCTIONS:

Answer *All* questions

Ensure that all your answers are properly numbered

Part I multiple Choice Questions (MCQ): Write the correct answer on the space provided in the answer booklet. Each MCQ is one mark

Part II: Short Answer Questions – Answer questions following each other on the answer booklet

Part III: Long Answer Questions – Answer each question on the answer booklet

SECTION A: MCQ (20 MARKS)

1. Which of the following cholinomimetics activates both muscarinic and nicotinic receptors?
 - A. Lobeline
 - B. Pilocarpine
 - C. Nicotine
 - D. Bethanechol
 2. Acetylcholine is not used in clinical practice because:
 - A. It is very toxic
 - B. The doses required are very high
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- C. It is very rapidly hydrolyzed
 - D. It is very costly
3. Indicate a reversible cholinesterase inhibitor:
- A. Isoflurophate
 - B. Carbochol
 - C. Physostigmine
 - D. Parathion
4. Which of the following drugs is both a muscarinic and nicotinic blocker?
- A. Atropine
 - B. Benztropine
 - C. Hexamethonium
 - D. Succinylcholine
5. Patients complain of dry or "sandy" eyes when receiving large doses of:
- A. Atropine
 - B. Hexamethonium
 - C. Pilocarpine
 - D. Carbachol
6. Nondepolarisation neuromuscular blocking agents:
- A. Block acetylcholine reuptake
 - B. Prevent access of the transmitter to its receptor and depolarization
 - C. Block transmission by an excess of a depolarizing agonist
 - D. All of the above
7. Epinephrine decreases intracellular camp levels by acting on:
- A. α 11 receptor
 - B. α 12 receptor
 - C. Beta 1 receptor
 - D. Beta2 receptor

8. Indicate the α_1 -selective antagonist:
- A. Phentolamine
 - B. Dihydroergotamine
 - C. Prazosin
 - D. Labetalol
9. Beta-blocking drugs-induced chronically lower blood pressure may be associated with their effects on:
- A. The heart
 - B. The blood vessels
 - C. The renin-angiotensin system
 - D. All of the above
10. Propranolol is used in the treatment all of the following diseases EXCEPT:
- A. Cardiovascular diseases
 - B. Hyperthyroidism
 - C. Migraine headache
 - D. Bronchial asthma
11. Paracetamol is widely used as an OTC medication and thus prone to abuse. Which of the following is used as paracetamol antidote in case of paracetamol poisoning?
- A. Water for injection
 - B. Naloxone
 - C. Naltrexone
 - D. N-Acetylcysteine
- E. Diazepam.
12. The following are examples of (SSRI) Selective Serotonin Reuptake Inhibitors, EXCEPT?
- A. Fluvoxamine,
 - B. Diazepam
 - C. Paroxetine,

D. sertraline

13 Pharmacokinetic process involves all of the following, Except?

- A. Drug action,
- B. Drug absorption
- C. Drug distribution,
- D. Drug metabolism,

14. Typical antipsychotics are known to cause extrapyramidal side effects that are well managed by administration of

- A. Benzhexol
- B. Haloperidol
- C. Morphine suspension
- D. Fluvoxamine

15. Cholinergic agonists are used to manage which of the following conditions?

- A. Reduce eye pressure in patients with glaucoma and during eye surgery
- B. Biliary colic (pain caused by stones in the bile duct).
- C. Spastic or hyperactive conditions of the GI and urinary tracts
- D. Prevent a drop-in heart rate caused by vagal nerve stimulation during anesthesia

16. Several therapeutic strategies can be used to counter attacks of gout, EXCEPT?

- A. Uricosuric drugs
- B. Colchicine
- C. Allopurinol
- D. Aspirin

17. Oral hypoglycemic agents are

- A. Used in management of Type 1 and Type 2 diabetes mellitus
- B. Sulfonylureas like glipizide, glyburide, gliclazide, glimepiride)
- C. Biguanides like pioglitazone
- D. A-Glucosidase inhibitors like metformin

18. Which of the following agents is associated with drug induced asthma?
- A. Furosemide
 - B. Aspirin
 - C. Captopril
 - D. Ephedrine
19. Tricyclic anti-depressant medications find pharmacotherapeutics in all of the following Except?
- A. Nocturnal enuresis
 - B. depressive illnesses, especially major depressive episodes and melancholic depression;
 - C. atypical oral and facial pain;
 - D. prophylaxis of Agina
20. Mon Amine Oxidase Inhibitors (MAO-I)
- A. Are used for management of atypical depression
 - B. Are likely to produce a withdrawal syndrome if abruptly stopped
 - C. Can be taken with tyramine rich food to improve absorption
 - D. Common adverse effects include orthostatic hypotension, weight gain

SECTION B

1. List any 2 steroids used in the management of Rheumatoid Arthritis (2 marks)
2. Give 2 examples of (NSAIDs) Non-steroidal anti-inflammatory drugs? (2 marks)
3. List any two Selective Cyclooxygenase 2 Inhibitors? (2 marks)
4. List 2 indications of Acetyl salicylic acid? (2 marks)
5. Differentiate between rheumatoid arthritis and Gout arthritis? (3 marks)
6. Citing example, Differentiate between typical and atypical neuroleptics? (4 marks)
7. Give 2 examples of Tricyclic anti-depressants and their indications? (4 marks)
8. With examples, state any 2 classes of drugs used in management of psychosis (4 marks)
9. Outline 5 characteristics of Diabetic nephropathy (5 marks)
10. Giving examples, classify the different classes of anaesthetic agents? (6 marks)

11. Giving examples, classify various agents used in the management of depression? (6 marks)

SECTION C

1. Discuss the pharmacological and non-pharmacological management of Diabetes mellitus type 2? (20 marks)
2. Discuss pain and its management? (20 marks)