

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2018/2019**

FIRST YEARS SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN CLINICAL MEDICINE AND COMMUNITY HEALTH

**ICM 2216: PHARMACOLOGY OF THE CNS AND ENDOCRINAL SYSTEM**

**DATE: JULY 2019 TIME: 3 HOURS**

**SECTION A: CHOOSE ONE MOST APPROPRIATE ANSWER FROM THE CHOICES PROVIDE IN THIS SECTION**

Q1. Neuromuscular blockers as muscle relaxants are used:-

1. To treat fibromyalgic conditions
2. During surgical procedures
3. To reduce spasticity in a variety of neurologic conditions
4. As adjuncts during general anesthesis

Q2. Aromatic property

1. Aromatic property
2. Ratio of ionisable tertiary amines
3. Molecular size
4. Lipid solubility

Q3. In which stage of general anaesthesia can sedative-hypnotics be used?

1. Stage II
2. Stage I
3. Stage IV
4. Stage III

Q4. Which of the following drugs has a benzodiazepine antagonist

1. Ethanol
2. Zaleplon
3. Flumazenil
4. Carbamazepine

Q5. Which of the fo9llowing DMRDS is a TNF inhibitor?

1. Methotrexate (MTX)
2. Glyburide
3. Tolazamide
4. Glipizide

Q7. Metabolism of benzodiazepines to form glucuronides takes place in

1. Phase I reaction
2. Phase II reaction
3. First pass
4. In the kidneys

Q8. Which of the following is a Non depolarizing long acting myorelaxant?

1. Vecuronium
2. Succinlycholine
3. Atracurium
4. Rapacuronium

Q9. About Misoprostol:-

1. Is a synthetic analogue of prostaglandin
2. Is a proton pump inhibitor
3. Augments mucosal resistance
4. Is an antiemetic

Q10. Phenobarbitone is a barbiturate with the following effects

1. Its levels are decreased by phenytoin
2. Increases serum levels of folic acid
3. It is effective in managing absences
4. It enhances the effect of GABA

Q11. Which of the following statements is true about non-depolarizing myorelaxants like pipecuronium

1. Their elimination half-life weakly correlates with their duration of action.
2. Those excreted by the kidney shorter half-lives
3. The elimination by the liver leads to long durations of action
4. Steroidal muscle relaxants are metabolized to their 3, 17-dihydroxy products in the liver

Q12. 1st generation tricyclic antidepressant include

1. Duloxetine
2. Maprotiline
3. Trazodone
4. Imipramine

Q13. Which of the following is a withdrawal symptom of benzodiazepines?

1. Muscle cramping
2. Diarrhoea
3. Anxiety
4. Phonophobia

Q14. Which of the following drugs is metabolized along first order kinetics?

1. Levetiracetam
2. Phenobarbitone
3. Phentoin sodium
4. Carbamazepine

Q15 About Sodium Valproate is a broad spectrum ant-epileptic drug. It

1. Inhibits P450 microsomal enzyme system in the liver
2. Stimulates P450 microsomal enzyme system
3. Is Associated with spina bifida
4. Is contra-indicated in myoclonic seizures

Q16. The paradoxical effect of acetylcholine mainly occur at

1. Ganglionic nicotinic receptor
2. Adrenergic receptor
3. Dopamihergic receptor
4. Synaptic cleft

Q17. Effects of prostaglandins on the reproductive system include

1. PG12 cause uterine relaxation
2. Dinoprostone is administered orally has serious oxytocic effect
3. Used in 3rd trimester abortions
4. Uterine muscle is contracted by PG E2

Q18. Indomethacin is effective in the treatment of

1. Arthritis
2. Transient ischemic attacks
3. Headache
4. Cramps

Q19. Coccaine synergizes with amphetamines by

1. Inhibiting re-uptake of dopamine
2. Increasing glycine release
3. Reducing release of dopamine
4. Modulating GABA-ergic release

Q20. Example of Uricosuric agents

1. Febuxostat
2. Probenecid
3. Alluperinol
4. Colchicine

Q21. Adverse effects of Menotropins include

1. Ovarian enlargement hyper-stimulation syndrome
2. Development of antibodies to GH
3. Respiratory depression
4. Gynaecomastia in women

Q22. Glibenclamide is an oral glucose lowering agent that falls in the following categories

1. Insulin secretagogues
2. Thiazolidinediones
3. A-glucosidase inhibitors
4. Amylin analog

Q23. Acetaminophen is

1. Both analgesic and antipyretic agent
2. Anti-inflammatory agent
3. Ant platelet agent
4. Uricosuric agent

Q24. Asprin when used in children is associated with

1. Reyes syndrome
2. Ricketts
3. Epilepsy
4. Anaemia

Q25. Psychtropic drugs can be classified into

1. Anti-epileptics
2. Narcotics
3. Hypnotics
4. Antidepressants

Q26. Which of the following class of drugs can be used in the management of attention deficit hyperkinetic disorders?

1. Sedatives
2. Neuroleptics
3. Stimulants
4. Antidepressants

Q27. Nonacetylated Salicylates include

1. Magnesium choline salicylate
2. Asprin
3. Brufen
4. Diclofenac

Q28. Which of the following drugs fall inthe category of cannabis

1. Paraldehyde
2. Hashish
3. Methaqualone
4. Meproamate

Q29. Febuxostat is an example of

1. Analgesic
2. NSAIDS
3. Uricosuric agent
4. Xanthine oxidase inhibitor

Q30. Absorption of insulin is decreased by

1. Exercise
2. High temperature
3. Localised massage
4. Low temperature

Q31. For how long is Human insulin stable from the manufacturing date at 4-8 degrees centigrade?

1. 24 months
2. 30 months
3. 6 months
4. 20 months

Q32. Which of the following is an indication for thiopental?

1. Induction of general anaesthesia
2. Control of non-convulsive seizure states
3. Reduce increased intracranial pressure
4. Maintenance of somnolence

Q33. Acute administration of alcohol leads to

1. Decrease inhibitory transmission at GABA-A channels
2. Increase excitatory transmission at the NMDA subtype of the glutamate receptor
3. Increased 5HT-3 function
4. Dopamine blockage at the opiate receptors

Q34. Which of the following drug is used in the management of pathological depression?

1. Caffeine
2. Imipramine
3. Midazolan
4. Amphetamines

Q35. Extraphyramidal toxicity occurs most frequently with which anaesthetic

1. Mepivacaine
2. Lithium
3. Haloperidol
4. Carbamazepine

Q36. GABA A receptors are the target for

1. Benzodiazepines
2. Local Anaesthetics
3. Acetylated salicylates
4. Acetaminophen

Q37. Which of the following is true about dexamethasone?

1. Is a naturally occurring glucocorticoid
2. Maybe used in managing psychosis
3. Is associated with aseptic necrosis of the hip
4. Facilitates healing in PUD

Q38. Which of the following precautions is taken when administering NPH lente

1. Give with the meals
2. Give 30 mns before the meal
3. Once or twice a day
4. Alternate days as IM injection at the deltoid

Q39. About colchicines in the management of gouty arthritis

1. It is a non steroidal analgesic
2. It reduces lactic acid production by leukocytes
3. It increases phagocytosis with abatement of the inflammatory response
4. It is a uricosuric agent

Q40. Which of the following drugs is a first line in manging primary GTCS?

1. Phenobarbitone
2. Sodium valproate
3. Carbamazepine
4. Ethosuximide

**SECTION B: SHORT ANSWER ESSAYS (COMPULSORY)**

Q1. Outline the clinical use of glibenclamide in the management of diabetes mellitus.

Q2. Highlight the functions of Thyroid hormones

Q3. Outline ophthalmic uses of corticosteroids

Q4. Outline the adverse effects of Opioids analgesics

Q5. Outline four major indications of insulin

Q6. Outline the mechanism of drugs used in managing Parkinsonism

Q7. Classify ani-seizure drugs based on their mechanisms of action

Q8. Distinguish hypnotics from sedatives

**SECTION C: LONG ESSAYS ANSWER ANY ONE QUESTION**

9. Describe the clinical use and adverse drug reactions of oral glucose lowering agents.

10. Describe the use of therapeutically active hormones produced by the Anterior pituitary gland

11. Describe the effects of inhaled Anaesthetics on the brain