**MLT 2nd**

**Course Title: General Pharmacology I**

**Student Name: sheroz Ali shah**

**Student ID: 16353**

**Note:**

**Attempt all questions**

**Each question carry equal marks**

**Pay attention to every point of question**

**Give to the point answers**

**Extra detail may leads to marks deduction**

1. What does drug interactions mean and enumerate its various types.

Answer: Medication interaction include mixes of a prescription with different substances that change the drug's impact on the body. This can make the prescription be less or more intense than expected or bring about sudden reactions. Pharmacodynamic cooperations can happen on: Pharmacological receptors: Receptor associations are the most effortlessly characterized, yet they are likewise the most well- known.

Sorts of Drug Interaction

drug interance: A response between at least two medications. ...

drug food: When food or drink admission changes a medication's impact. ...

drug liquor: Certain prescriptions that ought not be taken with liquor. ...

drug illness: The utilization of a medication that modifies or declines a condition or infection the individual has.

1. Write down a detail note on pharmacodynamic drug interaction.

Answer: Pharmacodynamic drug interaction: Pharmacodynamic associations. The expression "pharmacodynamic associations" alludes to connections in which medications impact each other's belongings legitimately. When in doubt, for instance, narcotics can potentiate one another. The equivalent is valid for liquor, which can potentiate the calming impacts of numerous medications

The expression "pharmacodynamic collaborations" alludes to cooperations in which medications impact each other's belongings legitimately. Generally speaking, for instance, narcotics can potentiate one another. The equivalent is valid for liquor, which can potentiate the calming impacts of numerous medications.

Pharmacodynamic collaborations are those in which medications impact each other's belongings legitimately.

Frequently, notwithstanding, a pharmacodynamic connection is really wanted, if commonly potentiating impacts a similar way (synergistic impacts) are focused on, e.g., in the utilization of against infectives or in torment treatment. At the point when the impact of one medication is obstructed by another, the impacts of these medications are hostile.

Indeed, even scarcely discernible undesired impacts can potentiate each other in a hazardous way. For instance, if fluoroquinolones are joined with macrolides, for example, erythromycin, this can result in QT prolongation. The blend of ACE inhibitors with potassium-saving diuretics, for example, amiloride can build potassium maintenance so firmly that hazardous hyperkalemia results. Associations of nonsteroidal mitigating drugs (NSAIDs) are shown underneath for instance of pharmacodynamic cooperations.

1.
2. Differentiate between hypoglycemic and hyperglycemic agents with examples.

Answer : Glycemia is the nearness of sugar (glucose) in the blood. Hyperglycemia shows abundance glucose in the blood. Hypoglycemia alludes to strangely low nearness of glucose in the blood. Controlling blood glucose levels is the foundation of diabetes treatment. Utilizing insulin infusions and admirably expending starches to keep up as steady and adjusted blood glucose levels as potential keeps the body working appropriately and forestalls long haul harm to fundamental organs. Checking your blood glucose to know whether A drug which increases the blood glucose level. Stars. This entity has been manually annotated by the ChEBI Team. Members Of **hyperglycemic agent** Class. alloxan.

the current levels are high or low is the best way to decide the fitting treatment. As hypoglycemia deteriorates, side effects may include: Confusion. Obscured vision. Dropping, loss of cognizance, seizures.

1. What is emesis and antiemetic drugs, give examples

ANSWER: An antiemetic is a medication that is viable against spewing and queasiness. Antiemetic are commonly used to treat movement ailment and the reactions of narcotic analgesics, general sedatives, and chemotherapy coordinated against disease An antiemetic is a medication that is compelling against spewing and sickness. Antiemetic are normally used to treat movement disorder and the symptoms of narcotic analgesics, general sedatives, and chemotherapy coordinated against disease. They might be utilized for extreme instances of gastroenteritis, particularly if the patient is got dried out.

Antiemetic drugs for malignant growth patients and chemotherapy

aprepitant (Emend)

dexamethasone (DexPak)

dolasetron (Anzemet)

granisetron (Kytril)

ondansetron (Zofran)

palonosetron (Aloxi)

prochlorperazine (Compazine)

rolapitant (Varubi)

1. What kind of drugs are used for cough and sputum, give examples

 Answer : Guaifenesin has a place with a class of medications known as expectorants. It works by diminishing and slackening bodily fluid in the aviation routes, clearing clog, and making breathing simpler. Dextromethorphan has a place with a class of medications known as hack suppressants. It follows up on a piece of the mind (hack focus) to lessen the inclination to hack

Expectorants. Expectorants are substances that help to extricate and oust bodily fluid from the lungs. They incorporate guaifenesin, smelling salts, senega, sodium citrate and ipecacuanha.

1.
2. Enumerate different targets for antibiotics

Answer : The cell divider or films that encompasses the bacterial cell.

The hardware that make the nucleic acids DNA and RNA.

The hardware that produce proteins (the ribosome and related proteins)

1. Explain viral replication process in detail

Answer : Viral replication includes six stages: connection, entrance, uncoating, replication, get together, and discharge. During connection and infiltration, the infection joins itself to a host cell and infuses its hereditary material into it. Viral populaces don't develop through cell division, since they are acellular. Rather, they utilize the apparatus and digestion of a host cell to create different duplicates of themselves, and they collect in the cell.

The existence pattern of infections contrasts enormously between species yet there are six essential stages in the existence pattern of infections: connection, infiltration (viral section), uncoating, replication, and lysis.

Some infections experience a lysogenic cycle where the viral genome is fused by hereditary recombination into a particular spot in the host's chromosome.

1.
2. Classify antihypertensive drugs with example

Answer: There are numerous classes of antihypertensives, which lower circulatory strain by various methods. Among the most significant and most broadly utilized prescriptions are thiazide diuretics, calcium channel blockers, ACE inhibitors, angiotensin II receptor foes (ARBs), and beta blockers.

The classes of pulse meds include:

Diuretics.

Beta-blockers.

Expert inhibitors.

Angiotensin II receptor blockers.

Calcium channel blockers.

Alpha blockers.

1. What are the causes and drug therapy of various kinds of angina pectoris

Answer : Angina, which is otherwise called angina pectoris, happens when the progression of blood through the coronary supply routes to the heart muscle is lacking to satisfy the heart's oxygen needs, for example, during physical action. Coronary illness is the most widely recognized reason for diminished blood stream to the heart in individuals with angina. A few meds can improve angina side effects, including: Aspirin. Anti-inflamatory medicine and other enemy of platelet meds lessen the capacity of your blood to clump, making it simpler for blood to move through limited heart corridors. Nitrates

**Types of Angina**

* Stable **Angina** / **Angina Pectoris**.
* Unstable **Angina**.
* Variant (Prinzmetal) **Angina**.
* Microvascular **Angina**.
1.
2. Differentiate between general and local anesthetics, explain various stages of general anesthesia

Answer : local anesthetics the place a little zone of the body is desensitized and you remain completely cognizant – frequently utilized during minor techniques. general anesthetics is the place you're absolutely oblivious and unconscious of the method – frequently utilized for progressively genuine activities.

Various stages of general anesthesia: Stage I (phase of absense of pain or bewilderment): from start of enlistment of general sedation to loss of cognizance.

Stage II (phase of energy or wooziness): from loss of cognizance to beginning of programmed relaxing. Eyelash reflex vanish yet different reflexes stay unblemished and hacking, retching and battling may happen; breath can be sporadic with breath-holding.

Stage III (phase of careful sedation): from beginning of programmed breath to respiratory loss of motion. It is isolated into four planes:

Plane I - from beginning of programmed breath to end of eyeball developments. Eyelid reflex is lost, gulping reflex vanishes, checked eyeball development may happen however conjunctival reflex is lost at the base of the plane

Plane II - from discontinuance of eyeball developments to start of loss of motion of intercostal muscles. Laryngeal reflex is lost in spite of the fact that aggravation of the upper respiratory tract expands reflex crabbiness, corneal reflex vanishes, emission of tears builds (a helpful indication of light sedation), breath is programmed and ordinary, development and profound breathing as a reaction to skin incitement vanishes.

Plane III - from starting to consummation of intercostal muscle loss of motion. Diaphragmatic breath continues yet there is dynamic intercostal loss of motion, students enlarged and light reflex is abrogated. The laryngeal reflex lost in plane II can in any case be started by excruciating boosts emerging from the dilatation of rear-end or cervix. This was the ideal plane for medical procedure when muscle relaxants were not utilized.

Plane IV - from complete intercostal loss of motion to diaphragmatic loss of motion (apnea).

Stage IV: from stoppage of breath till death. Sedative overdose-caused medullary loss of motion with respiratory capture and vasomotor breakdown. Understudies are generally enlarged and muscles are loose.

1. Write down the mechanism of action of narcotic and non-narcotic analgesics

Answer : **Mechanism of action of narcotic**

1. Intracellular recordings were made from neurones in the myenteric plexus of the guinea-pig ileum. Single myenteric ganglia were maintained in vitro and drugs were applied by adding them to the perfusing solution.

2. Narcotic analgesics hyperpolarized the membrane of a proportion of neurones in the myenteric plexus.

 3. The membrane hyperpolarization was sometimes associated with a decrease in input resistance. These effects reduced the excitability of myenteric neurones.

4. The effects of narcotics occurred at low concentrations (10 nM to 1 micrometer), were stereospecific and were reversed by naloxone.

 5. It is proposed that the morphine-sensitive neurones may be the cholinergic efferents to the muscle layers. By hyperpolarizing these neurones, morphine may prevent their excitation by electric field stimulation. This may explain why narcotic analgesics reduce the output of acetylcholine and the contractile response of this preparation when it is excited by field stimulation.