

MLT 2nd

Course Title: General pharmacology I

Student Name : Shahid Noor

Student ID: 16119

Note:

- Paper is divided into two questions, Q1 includes 15 MCQs and Q2 includes 15 True/False statements
 - Each MCQ or T/F carry one mark with grand total of 30 marks
 - **Highlight** or underline the appropriate option
 - Before marking, read every statement carefully to understand the actual sense of question
-

Q1. Select and highlight appropriate option for given questions

1. In the process of metabolism introducing the polar functional group into molecule may _____ the pharmacological activity of drug
 - a. Increase
 - b. Decrease
 - c. No change
 - d. All of the above
2. Drugs having the properties of _____ may have prolong half life
 - a. Hydrophobic
 - b. Pass from enterohepatic circulation
 - c. Both a. and b.
 - d. None of the above
3. Rapid signal transmission and processing occur through
 - a. G-protein coupled receptor
 - b. Ligand-gated receptor
 - c. Enzyme linked receptor
 - d. Intracellular receptor
4. Which of the following statement is not true
 - a. Mechanistically, every drug can illicit its action via enzymes, ion channels, transporters, receptors
 - b. Majority of drugs show its effects by interacting with its target biomolecules
 - c. The targeted biomolecules for initiating drug action are proteins in nature

- d. Mechanism of drug action always depends on its selectivity
5. The therapeutic index represents an estimate of the _____ of a drug, because a very safe drug might be expected to have a very large toxic dose and a much smaller effective dose.
- Efficacy
 - Safety
 - Toxicity
 - Both a. and b.
6. Which of the following statement is incorrect
- Oral drug administration is easy to self-administer
 - In emergency situation best choice of drug administration is I/M
 - Drugs with poor penetrability is usually administered through I/V
 - Inhalation means administration through mouth in small, atomized droplets form
7. Signals to the skeletal muscles are controlled by
- G-protein receptors
 - Second messenger system only
 - Nicotinic receptors
 - None of the above
8. Every drug follows same path/phases of metabolism such as
- Only one phase at a time
 - Phase I followed by Phase II
 - Phase II followed by Phase I
 - Depending upon chemical nature of drug
 - Both a. and d.
9. Which of the following statement is the false one
- Majority of drugs are equally eliminated via urine and feases
 - Nephron is the structural and functional unit of kidney
 - Only appropriately metabolized can be eliminated efficiently by kidneys
 - If kidneys failed to eliminate then workload is eased by intestinal route.
10. Degradative enzymes of GI tract cause drugs to denature which in turn lower its
- Absorption
 - Distribution
 - Bioavailability

- d. Both a. and c.
 - e. All of the above
11. Which receptor require preliminary formation of ligand bonding that lead to moveable complex
- a. Enzyme linked receptors
 - b. Ligand-gated ion channels
 - c. Intracellular receptors
 - d. G-protein coupled receptors
12. A patient having certain type of infections showed altered _____
- a. Biological half-life
 - b. Biological effect half-life
 - c. Plasma half-life
 - d. All of the above
13. Drug distribution of any class of drug can be determined in terms of _____
- a. Hydrophilicity
 - b. Molecular weight
 - c. Hydrophobicity
 - d. Plasma proteins binding
 - e. All of the above
14. Which of the following statement is not related to exact principle of drug action
- a. Treatment of low heart rate by giving adrenaline
 - b. Treatment of acidity with omeprazole
 - c. Treatment of diabetes by giving insulin as external hormone
 - d. Treatment cancer by giving them genetic therapy
 - e. All are true
15. Which of the following directly alter membrane potential
- a. Enzymes
 - b. Transporters
 - c. Ion-linked channels
 - d. All of the above

Q.No.1:

Ans:

❖ **1. A**

❖ **2. A**

❖ **3. D**

❖ **4. C**

❖ **5. A**

❖ **6. B**

❖ **7. A**

❖ **8. D**

❖ **9. C**

❖ **10. D**

❖ **11. B**

❖ **12. D**

❖ **13. E**

❖ **14. E**

❖ **15. D**

Q2. Select and highlight true and false for the given statements

1. Clinical pharmacology includes the investigation of drug's efficacy and safety in various form of subjects (True/False)
2. Drug X shows its action by releasing cholinergic neurotransmitter, due to large particulate nature its release will occur through endocytosis (True/False)
3. Drug metabolism in humans usually results in a product that is more lipid soluble than the original drug (True/False)
4. Various doses, dosage form and frequency is adjusted in pharmacotherapeutics (True/False)
5. In passive diffusion, aqueous soluble drugs cannot move easily across cell membrane (True/false)
6. A patient is administered with drug A started toxic reaction but that drug is slowly metabolized by enzymes, he/she should be treated with cimetidine to overcome toxicity (True/False)
7. In enterohepatic circulation, reactivated metabolites comes from the metabolism via enzymes other than CYP P450 (True/False)
8. Drug A is hydrophobic in nature and having high plasma proteins binding are likely to distributed effectively to the target organ (True/False)
9. A patient has some allergic reactions to the drug A, for avoiding any adverse reaction he administered Drug B with same desired properties, both of the drugs are therapeutically equivalent (True/False)
10. Different dosage forms of same therapeutic class of drug will always effect the time to achieve peak plasma concentration (True/False)
11. In case of drug action, preliminary bonding of drug with specified receptor will always lead to alteration of receptor's structure (True/False)
12. Mechanistically, every drug can illicit its action via enzymes, ion channels, transporters, receptors (True/False)
13. As compared to other receptors, intracellular receptors take long for initiating its effect (True/False)
14. Depending upon the nature of ligand, majority of drugs interact with receptors that are present across the cell membrane (True/False)

