**Mid-term assignment**

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 **(BS. MLT 2nd)**

**Course Title: - General pharmacology I**

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**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 **Decrease** the pharmacological activity of drug
2. Increase
3. Decrease
4. No change
5. All of the above
6. Drugs having the properties of **Both A and B** may have prolong half life
7. Hydrophobic
8. Pass from enterohepatic circulation
9. Both a. and b.
10. None of the above
11. Rapid signal transmission and processing occur through
12. G-protein coupled receptor
13. **Ligand-gated receptor**
14. Enzyme linked receptor
15. Intracellular receptor
16. Which of the following statement is not true?
17. Mechanistically, every drug can illicit its action via enzymes, ion channels, transporters, receptors
18. Majority of drugs show its effects by interacting with its target biomolecules
19. The targeted biomolecules for initiating drug action are proteins in nature
20. **Mechanism of drug action always depends on its selectivity**
21. 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.
22. Efficacy

**safety**

1. Toxicity
2. Both a. and b.
3. Which of the following statement is incorrect?
4. Oral drug administration is easy to self-administer
5. **In emergency situation best choice of drug administration is I/M**
6. Drugs with poor penetrability is usually administered through I/V
7. Inhalation means administration through mouth in small, atomized droplets form
8. Signals to the skeletal muscles are controlled by
9. G-protein receptors
10. Second messenger system only
11. **Nicotinic receptors**
12. None of the above
13. Every drug follows same path/phases of metabolism such as
14. Only one phase at a time
15. Phase I followed by Phase II
16. Phase II followed by Phase I
17. **Depending upon chemical nature of drug**
18. Both a. and d.
19. Which of the following statement is the false one
20. Majority of drugs are equally eliminated via urine and feases
21. Nephron is the structural and functional unit of kidney
22. Only appropriately metabolized can be eliminated efficiently by kidneys
23. **If kidneys failed to eliminate then workload is eased by intestinal route.**
24. Degradative enzymes of GI tract cause drugs to denature which in turn lower its
25. Absorption
26. Distribution
27. **Bioavailability**
28. Both a. and c.
29. All of the above
30. Which receptor require preliminary formation of ligand bonding that lead to moveable complex
31. Enzyme linked receptors
32. **Ligand-gated ion channels**
33. Intracellular receptors
34. G-protein coupled receptors
35. A patient having certain type of infections showed altered \_\_\_\_\_\_\_\_\_\_\_\_\_\_
36. Biological half-life
37. Biological effect half-life
38. Plasma half-life
39. **All of the above**
40. Drug distribution of any class of drug can be determined in terms of \_\_\_\_\_\_\_\_\_\_\_\_
41. Hydrophilicity
42. Molecular weight
43. Hydrophobicity
44. Plasma proteins binding
45. **All of the above**
46. Which of the following statement is not related to exact principle of drug action
47. Treatment of low heart rate by giving adrenaline
48. Treatment of acidity with omeprazole
49. Treatment of diabetes by giving insulin as external hormone
50. Treatment cancer by giving them genetic therapy
51. **All are true**
52. Which of the following directly alter membrane potential
53. Enzymes
54. Transporters
55. **Ion-linked channels**
56. All of the above

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)
15. Various subunits of second messenger system of G-proteins is always linked other receptors i.e. intracellular receptors, enzymes or ion linked channels (True/False)