**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
23. Safety
24. Toxicity
25. Both a. and b.
26. Which of the following statement is incorrect
27. Oral drug administration is easy to self-administer
28. In emergency situation best choice of drug administration is I/M
29. Drugs with poor penetrability is usually administered through I/V
30. Inhalation means administration through mouth in small, atomized droplets form
31. Signals to the skeletal muscles are controlled by
32. G-protein receptors
33. Second messenger system only
34. Nicotinic receptors
35. None of the above
36. Every drug follows same path/phases of metabolism such as
37. Only one phase at a time
38. Phase I followed by Phase II
39. Phase II followed by Phase I
40. Depending upon chemical nature of drug
41. Both a. and d.
42. Which of the following statement is the false one
43. Majority of drugs are equally eliminated via urine and feases
44. Nephron is the structural and functional unit of kidney
45. Only appropriately metabolized can be eliminated efficiently by kidneys
46. If kidneys failed to eliminate then workload is eased by intestinal route.
47. Degradative enzymes of GI tract cause drugs to denature which in turn lower its
48. Absorption
49. Distribution
50. Bioavailability
51. Both a. and c.
52. All of the above
53. Which receptor require preliminary formation of ligand bonding that lead to moveable complex
54. Enzyme linked receptors
55. Ligand-gated ion channels
56. Intracellular receptors
57. G-protein coupled receptors
58. A patient having certain type of infections showed altered \_\_\_\_\_\_\_\_\_\_\_\_\_\_
59. Biological half-life
60. Biological effect half-life
61. Plasma half-life
62. All of the above
63. Drug distribution of any class of drug can be determined in terms of \_\_\_\_\_\_\_\_\_\_\_\_
64. Hydrophilicity
65. Molecular weight
66. Hydrophobicity
67. Plasma proteins binding
68. All of the above
69. Which of the following statement is not related to exact principle of drug action
70. Treatment of low heart rate by giving adrenaline
71. Treatment of acidity with omeprazole
72. Treatment of diabetes by giving insulin as external hormone
73. Treatment cancer by giving them genetic therapy
74. All are true
75. Which of the following directly alter membrane potential
76. Enzymes
77. Transporters
78. Ion-linked channels
79. 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)