

**FACULTY OF PHARMACY****M. Pharmacy (Pharmacology) II – Semester (PCI) (Suppl.) Examination,****January 2020****Subject: Principles of Drug Discovery****Time: 3 Hours****Max.Marks: 75****Note: Answer any five questions. All questions carry equal marks.**

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| 1 | a) Discuss the role of transgenic animals in drug discovery.  | 10 |
|   | b) Explain in brief the role of genomics in target identification.                                    | 5  |
| 2 | a) Describe the methods of lead optimization.   | 8  |
|   | b) Write a note on protein structure prediction and molecular modelling.                              | 7  |
| 3 | a) Write a note on 3D QSAR.   | 7  |
|   | b) Explain in brief abt electronic parameters used in QSAR.   | 8  |
| 4 | a) Explain abt the identification of pharmacophore in computer aided drug design.                     | 8  |
|   | b) Write a note on CoMSIA.  | 7  |
| 5 | a) What do y understand abt De Novo drug design?  | 7  |
|   | b) Explain the role of physicochemical properties in relation to biological activity and drug design. | 8  |
| 6 | a) Write a note on design of pro-drug with their application.   | 8  |
|   | b) What do y understand abt the molecular docking?  | 7  |
| 7 | a) Define pro-drug and advantages associated with pro-drug formation.                                 | 8  |
|   | b) Explain abt HTS and its importance.  | 7  |
| 8 | a) What is the role of nucleic acid and protein micro array in target discovery and validation.       | 10 |
|   | b) Write a note on economy of drug discovery.   |    |

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