

MASTER OF PHARMACY EXAMINATION, 2019

Pharm. Chemistry - II (2nd Semester)

Time: Three hours

Full Marks: 100

Answer any **five** questions taking at least **two** from Group A

GROUP – A

1. a) Define a reference standard; Differentiate between PRS and BRS with example
b) Explain briefly the reductionist approaches for development of molecule from plant with example
c) Explain different extraction techniques for isolation of Fixed oils and volatile oils from plants 6+8+6 = 20

2. a) What is marker analysis in herbal drugs? state different procedure for marker analysis of a herbal drugs.
b) Describe the chemical structure of the reference substances and the assay procedures for the following herbal drugs as per IP:
 - i) *Tinospora cordifolia*
 - ii) *Adhatoda vasica*
 - iii) *Bacopa moneri* 8+3x4 = 20
 - iv) *Withania somnifera*

3. a) What do you mean by traditional claims? Explain with example how traditional claims on use of herbs can be validated by chemical means?
b) Describe the chemical structure, biological source with the parts used and therapeutic application of the following bioactive constituents:
 - i) Ginsenoside
 - ii) Boswellic acid
 - iii) Gingerol
 - iv) Artemisinin 8+3x4 = 20

M.Pharm 1st Year 2nd Semester Examination-2019

Pharmaceutical Chemistry-II

Time: 3 hours

Group- B

Full Marks: 100

Answer any five questions taking atleast two from each group

1. a) What are proton pump inhibitors? Give some example with structure.
b) Discuss SAR synthesis and metabolism of Lansoprazole and Pantoprazole. 6+14=20
2. a) How can the modification of inactive natural products lead to potent drug by suitable biological/chemical means. Explain with example.
b) How can the explorations of biologically active phenotype lead to better & newer synthetic drug. Illustrate with an example.
c) Discuss the structure and uses of following class of compounds.
Xanthine alkaloid
Tropane alkaloid.
Benzyloisoquinoline alkaloid
Indole alkaloid
Phenanthrene alkaloid 5+5+10=20
3. Discuss in brief the steps involved in “lead finding in drug discovery and development”.