

BACHELOR OF PHARMACY EXAMINATION, 2019

(2nd Year, 2nd Semester)

Pharmaceutical Chemistry – VI

Time: Three hours.

Full Marks:100

Answer any *five* questions taking at least two from each group

GROUP – A

1. a) Define an alkaloid and pseudo alkaloid. Give example in each case
b) Classify different alkaloids based on their therapeutic category.
c) What are Purine alkaloids? Discuss their chemical and therapeutic features with example.
d) Mention the general tests for alkaloids 4×5=20

2. a) Differentiate between quinine, quinidine alkaloids with example.
b) Discuss various chemical tests for Quinoline and Indole alkaloids
c) Describe the TCA cycle for production of plant metabolites
d) Describe the chemical test for saponin 4×5=20

3. Explain the following pathways with schematic diagram
(a) Shikimic acid pathway
(b) Biosynthetic pathways for production of Nicotine
(c) Biosynthetic pathways for production of tropane alkaloids
(d) Biosynthetic pathways for production of tryptophan 4×5=20

4. a) State different methods for extraction of volatile oils and fixed oils
b) Explain different test procedures for volatile oils and fixed oils
c) Define nutraceuticals. Describe the role of dietary supplements in health benefit with example.
d) Classify different classes of Tannin with example 4×5=20

B.Pharm 2nd Year 2nd Semester Examination-2019

Pharmaceutical Chemistry-VI

(Natural Products)

Time: 3 hours

GROUP - B

Full Marks: 100

Answer any five questions taking atleast two from each group

1. a) What are the natural products? What is the full form of AYUSH?
b) How can you differentiate modern medicine & herbal drugs? Enumerate a comparative statement.
c) Discuss the factors to be considered for natural products & drug discovery. 4+6+10=20

2. a) Define and classify terpenoids with examples.
b) Write a brief notes on α -Carotene, β -Carotene, Xanthophylls, Capsanthin and Lycopene. 5+5×3=20

3. a) Define and classify Carotenoids with examples.
b) Write a note on Carvone, Geraniol, Menthol, Linalol and Citral.
c) How can C-C bond formation take place in terpenoid biosynthesis upto C₂₀. Explain with chemical structure. 2+10+8=20

4. a) Define and classify glycoside with examples.
b) Write short notes on Anthracene glycoside, Gaultherin, Salicin, Digitalin, and Cyanogenetic glycosides. 5+5×3=20