Ref. No.: Ex/MPG103T/2024

M. PHARM. FIRST YEAR, FIRST SEMESTER EXAM 2024

SUBJECT: PHYTOCHEMISTRY

Time: 3 hours Full marks: 75

(Answer any 5 questions taking at least 2 from each group)

Group – A

1. Write down schematically (with structures of key intermediates) the biosynthesis of (Any two)
   a) Piperine
   b) Quercetin
   c) Sennosides
   d) Taxol 7.5 x 2 = 15
2. Write an explanatory note of any one technique to study metabolic pathways in plants. 15
3. Discuss production, identification and characterization of ephedrine. 7 + 2 + 6 = 15
4. Write down the qualitative tests for identification of Strychnine, Quinine, Berberine, Digitoxin and Sennosides. 3 x 5 = 15

[Turn over

Group – B

5. Write down schematically (with structures of key intermediates) the biosynthesis of (Any two)
   a) Piperine
   b) Quercetin
   c) Taxol 7.5 x 2 = 15
6. Write an explanatory note of any one technique to study metabolic pathways in plants. 15
7. Discuss biosynthesis, production and characterization of ephedrine. 7 + 2 + 6 = 15
8. Write down the qualitative tests for the identification of the following metabolites:
   a) Strychnine
   b) Quinine
   c) Berberine
   d) Digitoxin.
   e) Ephedrine 3 x 5 = 15
9. Explain schematically biosynthesis, isolation and characterization of Sennosides. 15
10. Explain schematically the methods of isolation (any 3) of the following metabolites:
    a) Wthanolides
    b) Glycyrrhizin
    c) Vinca alkaloids
    d) Taxol 3 x 5 = 15