

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)

CLASS: BPHARM  
BRANCH: PHARMACY

SEMESTER: V  
SESSION: MO/2022

SUBJECT: BP504T PHARMACOGNOSY AND PHYTOCHEMISTRY-II

TIME: 3.00 Hours

FULL MARK: 75

INSTRUCTIONS:

1. The missing data, if any, may be assumed suitably.
2. Before attempting the question paper, be sure that you have got the correct question paper.
3. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
4. This question paper consists of (03) three parts. Read the part wise instructions before attempting the questions.

PART-I

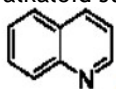
Q1. Multiple choice Questions

(15 x 1 = 15 Marks)

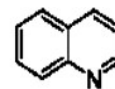
- 1 Abietic acid is found in  
i) Asafoetida      ii) Benzoin      iii) Guggul      iv) Colophony
- 2 Biological source of Clove is  
i) *Eugenia caryophyllus*      iii) *Rauwolfia serpentina*  
ii) *Cinchona succirubra*      iv) *Atropa belladonna*
- 3 Hager's reagent is used for the detection active constituents of  
i) Balsam of Peru      ii) Digitalis      iii) Rauwolfia      iv) Fennel

- 4 Identify the Quinoline alkaloid structure

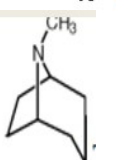
(i)



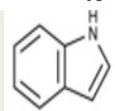
(iii)



(ii)



(iv)



- 5 Alkaloids derived from  
i) Amino acid      ii) Sugar      iii) Glucuronic acid      iv) Saponin
- 6 Choose the example of pseudo alkaloids is  
i) Caffeine      ii) Quinine      iii) Reserpine      iv) Piperine
- 7 The anticancer drug vincristine is isolated from  
i) *Datura stramonium*      ii) *Cinchona succirubra*  
iii) *Aloe vera*      iv) *Vinca rosea*
- 8 Which reagent is used for detection of Caffeine  
i) Keller killani test      iii) Libermann Burchard test  
ii) Fehling's test      iv) Murexide test
- 9 Which of these are unorganised drugs  
i) Colophony      ii) Benzoin      iii) Agar      iv) Balsam of tolu
- 10 Both agar and acacia give sulphate test? Justify your answer with reasons?

- 11 The HPTLC is

- (i). High pressure tubular layer chromatography
- (ii). High performance thin layer chromatography
- (iii). High percolating thin layer chromatography
- (iv). High pressure thin layer chromatography

- 12 Identifying character of Coriander is

- i) Paracytic stomata      ii) Vittae      iii) Sclerenchymatous non lignified fibres      iv) Sclerenchymatous lignified fibres

- 13 Natural agar gives Fehling's test? Justify your answer with reasons?
- 14 In HPTLC the silica particles are in the range is  
i) 2.5 to 5  $\mu\text{m}$  ii) 5 to 10  $\mu\text{m}$  iii) 10 to 15  $\mu\text{m}$  iv) 15 to 20  $\mu\text{m}$
- 15 Oxidase in acacia is detected by \_\_\_\_\_ test?
- 16 Distinguish between TLC and HPTLC? (2 marks)
- 17 Write the confirmatory test for Acacia, Agar, colophony, and Asafoetida (6 marks)
- 18 Draw diagnostic characters of Senna, Cinchona, Cinnamon, and Coriander? (2 marks)

#### PART-II

(5 x 8 = 40 Marks)

#### Answer any five questions.

- Q1. Explain shikimic acid pathway?
- Q2. Illustrate the pathways for biosynthesis of different amino acids?
- Q3. Explain with reasons the isolation procedure of an alkaloid?
- Q4. Enlist the advantages and disadvantages of different methods of extraction?
- Q5. Define Alkaloids. Explain the various types of alkaloids with suitable examples.
- Q6. Write down the biological source, plant characters, chemical constituents, and uses of any volatile drug
- Q7. Discuss the Biological source, chemical constituents and uses of Liquorice.
- Q8. How will you isolate and analyse Taxol and Vincristine.

#### PART-III

(1 x 10 = 10 marks)

#### Answer any one question

- Q1. Define and Classify Resin. Describe the method of collection, chemical constituents, chemical test, and use of any resin.?
- Q2. Write the general biosynthetic pathway and evaluate the different methods to elucidate biosynthetic pathway.?

:::::24/11/2022:::::M