

2017

M.Sc. 2nd Semester Examination

BOTANY

PAPER—BOT-203

Full Marks : 40

Time : 2 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Unit—I

[Marks : 20]

1. Answer any *four* of the following :

4×1

- (a) What is phragmosome ?
- (b) Mention two major uses of coir.
- (c) What is salt gland ?

(Turn Over)

- (d) What is schezogenous cavity ?
- (e) What is peltate hair ?
- (f) What is intrafascicular cambium ?

2. Write short notes on any *two* of the following : 2×3

- (a) Types of stomata according to Metchalfe and Chalk.
- (b) Colleters.
- (c) Retting of jute.
- (d) Lignification patterns in xylem.

3. Answer any *one* question of the following :

- (a) What are nectaries ? Desceibe with examples the various types of nectaries is higher plants. Write the chemical composition of wood. What do you mean by extrafloral nectarics ? 1+4+4+1
- (b) Enumerate the various types of laticifers in plants. What is the chemical composition of latex ? Briefly describe the chemical nature of hemicellulose. 4+2+4

Unit—II**[Marks : 20]**

4. Answer any *four* of the following : 4×1
- (a) Define crude drug.
 - (b) What is a secondary metabolite ? Give two examples.
 - (c) Write the chemical constitution of Wagner's reagent.
 - (d) What is glycone ? Give an example.
 - (e) What is shelf life of a drug ?
 - (f) Name an adulterant of ergot.
5. Write short notes on any *two* of the following : 2×3
- (a) Alkaloids obtained from *Catharanthus sp.* and their uses.
 - (b) Classification of glycosides on the basis of their linkage and show the nature of the chemical bond.
 - (c) Significance of season and age stage during drug collection.
 - (d) Discuss the importance of Raman spectroscopy in detection of adulteration.

6. Answer any *one* question of the following : 1×10
- (a) Give a brief account of acetate mevalonate pathway. What is the significance of this pathway ? 8+2
- (b) Discuss the different methods of adulteration alongwith examples. State briefly two major methods of detection of adulteration. 8+2
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