

**2008****M.Sc. Part-I Examination****BOTANY****PAPER—II**

Full Marks : 100

Time : 4 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.**Write the answer to questions of each Half in separate books.***First Half***(Taxonomy of Angiosperms)*

[Marks—50]

Answer question No. 1 and any two from the rest.

1. Comment on the following (any five) : 4×5

- (i) Role of betalains and anthocyanins as taxonomic markers ;
- (ii) Major category of classification ;
- (iii) Homonym and synonym ;
- (iv) Role of Herbaria in taxonomic study ;
- (v) Pseudo-embryo sac as taxonomic marker ;

*(Turn Over)*

- (vi) Flora and Manual;
- (vii) Primitive characters of Magnoliaceae;
- (viii) Holotype and Lectotype.
2. What do you mean by phenetic and Phylogenetic systems of classifications? Discuss the classification up to order as proposed by Dahlgren. Point out the main differences of this system with that of Takhtajan's system of classification. 2+2+8+3
3. Characterize the order Resolves mentioning the examples of two plants. Discuss the putative relationships of the members included under the order. Write a brief note on the phylogeny of the order cyperabes. 4+2+5+4
4. Write the principles of ICBN. Comments on "effective publication" and "valid publication". 9+3+3

Write the answer to questions of each Unit in separate books.

## **Second Half**

### **Unit—I**

*(Bio-informatics and Computer Application)*

[Marks—30 ]

Answer any *three* questions

5. (a) What do you mean by workbook and work sheet in MS Excell? How do you enter data into the cell of a work book?

- (b) Write the steps for creating a bar diagram in MS Excell. How do you print this bar diagram? 4+6
6. (a) What do you understand by primary memory and secondary memory of a computer?
- (b) What is meant by RAM and ROM? Discuss the characteristics of different types of RAM and ROM. 3+7
7. (a) What do you mean by software and hardware? Give two examples for each of them.
- (b) What are the difference between low level and high level languages?
- (c) What do you mean by operating system? Give two examples of operating system. 4+2+4
8. (a) What is operating system? Give examples. What are the advantages of an operating system?
- (b) What is application program?
- (c) State the difference between source program and object program. 5+3+2
9. Write brief notes on the following :  $2\frac{1}{2} \times 4$
- (a) Internet explorer;
- (b) Mail merge in MS-WORD;
- (c) Fifth generation computer;
- (d) Modern.

**Unit—II**

*(Bio-Statistics)*

[Marks—20 ]

Answer any *two* questions

10. (a) Find the mean and median of the following distribution:

Marks	:	0-10	10-20	20-30	30-40	40-50
No. of students	:	5	8	10	5	2

- (b) What do you mean by mode of a distribution? Find the mode of the following data :

5, 8, 5, 3, 3, 5, 8, 6. 7+3

11. (a) Define range and mean deviation of a simple distribution. Find the range and mean deviation about mean of the following data :

5, 8, 3, 10, 7, 6, 15, 18, 25, 30.

- (b) Find the standard deviation of the marks obtained by six students of a class :

50, 60, 70, 80, 40, 65. 6+4

12. (a) Define normal distribution write its four properties. Explain why this distribution is called normal.

- (b) What do you mean by Correlation and regression? What will be value of correlation coefficient between the variables when two variables are connected by a linear relation. 5+5