Botany [Honours]

[CBCS]

B.Sc. Fifth Semester End Examination-2023

(Regular & Supplementary Paper)

PAPER-DSE1P

Practical

Full Marks: 20 ***Time: 02 Hrs***

The figures in the right hand margin indicate marks

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

Illustrate the answers wherever necessary

1. Calculate any one of the following problems according to examiner's instruction.

   a) Find out the co-relation co-efficient between the two attributes of 5 plants.

Height of the plants	5cm	9cm	13cm	17cm	21cm
No. of leaf per plant	12	20	25	33	35

   b) The effect of pesticide 'METACID' is tested on germination of Lentil seeds find out the co-relation co-efficient

Concentration of Pesticides (ppm)	0	1	2.5	5	7.5
% of germination	90	81	65	52	39

   c) A plant physiologist was investigating the effect of 'IBA' on emergence of roots from detouched leaves. He used three

different concentration in five(5) replicates and got the following results. Calculate the 'F' value to study the analysis of variance.

Concentration of IBA (ppm)

Replicates	10	20	30
1	5	7	4
2	4	9	3
3	6	8	5
4	5	10	3
5	6	9	4

d) In an investigation related the effect of $HgCl_2$ of 3 different concentrations on the germination of wheat grain. The following results were obtained. Calculate the 'F' value to study the analysis of variance.

Replicates	10mg/L	20mg/L	30mg/L
1	80	75	65
2	85	70	68
3	83	66	72
4	90	75	58
5	88	72	60

2. Calculate any one of the following problems according to examiner's instruction.

a) Calculate the mean and Standard Deviation (SD) of body heights (cm) in the following distribution.

Class intervals	156-160	161-165	166-170	171-175	176-180
Frequencies	4	14	25	11	6

b) Calculate the standard error (SE) of the mean using the following frequency distribution of body heights(cm)

Class intervals	156-160	161-165	166-170	171-175	176-180
Frequencies	4	14	25	11	6

c) Find out the geometric mean of the following seeds

5mg, 7mg, 8mg and 4mg

d) An observation on 32 Babam plants show the following data. Calculate the arithmetic mean.

No. of flowers/ plant	4	5	6	7	8	9
No. of plants	3	5	6	9	5	4

3. Submission of Laboratory Note-book. 2

4. Viva-voce 3
