

**B.Sc. Sem-V**  
**Practical Examination 2020-21**  
**BOTA**  
**Paper: DSE-A (Biostatistics)**

**F.M.- 30**

**Time: 1h 30 mins**

**Answer the following questions:**

**(3x10=30)**

1. Find the Mean, Mode, Standard Deviation and Standard Error of the following data:

Length of leaf (cm)	10	11	12	13	14	15	16
Frequency	2	7	1	15	10	4	1

(2+2+3+3)

2. a) What is dihybrid experiment? (2)

b) Following seeds were obtained from the  $F_2$  generation.

Green Round- 70

Green Wrinkle- 23

Brown Round- 22

Brown Wrinkle- 10

i) Perform the statistical analysis and find out in which of the following ratios the given data fits into: 9:3:3:1, 1:1:1:1

ii) Calculate the  $\chi^2$  value. (5+3)

3. a) What is monohybrid experiment? (2)

b) What is back cross? (2)

c) i) Perform the statistical analysis and find out in which of the following ratios the given data fits into: 3:1, 1:1, 9:7, 13:3, 15:1

Green seeds- 86

Yellow seeds- 34

ii) Calculate the  $\chi^2$  value. (3+3)