**Hiralal Mazumdar Memorial College for Women, Dakshineswar**

**Department of Botany,**

**Semester IV, Botany Honours**

**CC-VIII, Internal assessment**

**Time: 1hr. Full Marks: 25**

1 Answer the following questions (**any 6**) (1 x 6)

 a) What do you mean by mtDNA?

 b) Distinguish between euchromatin and heterochromatin.

 c) What did Hershey and Chase use bacteriophages?

 d) What are the four enzymes in DNA replication?

 e) What is the difference between nucleosome and chromatin?

 f) What is histone octamer?

 g) What is Cot curves?

2 Answer the following question (**any 3**) (3 x 3)

 a) Write down the Watson and Crick model.

 b) Briefly describe the different types of DNA.

 c) Describe with diagram the solenoid model of nucleosome.

 d) Distinguish between constitutive and facultative heterochromatin.

3 Answer the following questions (**any 2**) (5 x 2)

a) What is semi-conservative replication? Describe the process of DNA replication in prokaryotes.

 b) With the help of Griffith experiment, prove that DNA is a genetic material.

 c) Briefly explain denaturation and renaturation of DNA.

**The assignment should be submitted to Smt. Ishita Chatterjee, Department of Botany, Hiralal Mazumdar Memorial College for Women, Dakshineswar**