Total No. of Questions - **26**
Total No. of Printed Pages - **2**

Regd. No.

Part - III

BOTANY, Paper - II

(English Version)

MODEL QUESTION PAPER (FOR IPE 2020-21 ONLY)

Time : **3 Hours**   *Max. Marks :* **60**

Section - A   **10×2=20**

Answer ALL the questions (very short answer type)

1.   Distinguish between apoenzyme and cofactor.

2.   What is meant by bolting? Which hormone causes bolting?

3.   Explain the terms phenotype and genotype.

4.   Who proposed the chromosome theory of inheritance?

5.   Define step codon. Write the stop codons.

6.   What are the components of a nucleotide?

7.   What are molecular scissors? Where are they obtained from?

8.   How can you differentiate between exonuclease and endonuclease?

9.   Why do we prefer to call secondary waste water treatment as biological treatment?

10.   Name any two industrially important enzyme.

Section - B   **6×4=24**

Answer any SIX questions (short answer type)

11.   Write briefly about enzyme inhibitors.

12.   Write any four physiological effects of cytokinins in plants.

13.   Define RQ, write a short note on RQ.

14.   Differentiate between the following:
       (a) Dominant and recessine   (b) Homozygous and heterozygous

Turn Over

15.   Explain the co-dominance with example.

16.   Explain the law of dominance with example.

17.   Mention the advantage of selecting pea plant for experiment by Mendal.

18.   Define transformation in Griffita's experiment. Discuss how it helps in the identification of DNA as genetic material.

19.   What are the differences between DNA and RNA.

20.   Write the important features of Genetic Code.

21.   Write short notes on restriction enzyme.

22.   What are the different methods of insertion of recombinant DNA into the hort cell?

Section - C   **2×8=16**

Answer any FOUR questions (short answer type)

23.   Explain Calvin cycle.

24.   Explain the reactions of Kreb's cycle.

25.   Explain briefly the various processes of recombinant DNA Technology.

26.   Write brief essay on microbes in sewage treatments.