

**M.Sc. (Previous) EXAMINATION, 2025**

**Botany**

**Paper : First Paper**

**(Cell & Molecular Biology of Plants)**

**Time Allowed : Three Hours**

**Maximum Marks: 100**

**समय : तीन घंटे**

**अधिकतम अंक : 100**

*Each theory paper will have 9 questions, out of which a student has to attempt 5 questions and the question no. 1 will be compulsory. The question No. 1 will carry 20 marks and will be of short types of questions with a limit of 20 words*

*No supplementary answerbook will be given to any candidate. Hence the candidates should write their answer precisely in the main answer book only.*

*All the parts of one question should be answered at one place in the answer book. One complete question should not be answered at different places in the answer book.*

**Part-A**

**I. Answer the following in short-**

**[20]**

- (a) What is introns?
- (b) Explain splicing.
- (c) What is SEM?
- (d) Explain electrophoresis.
- (e) What are quatasomes?
- (f) Explain lysosome.
- (g) Explain one gene one enzyme hypothesis.
- (h) What are interferons?

(i) / Functions of Golgi complex.

(j) Functions of chloroplast

**Part-B**

[10+10=20]

2. Describe the following:

(a) Structure and function of cell wall

(b) Plasmodesmata

**OR**

[20]

Structure and function of plasma membrane

3. Write short notes on:

(a) Tonoplast membrane

(b) Atpase

[10+10=20]

**OR**

[20]

Comment RFLP are the first class of genetic marker.

4. Write detail account of structure, site of protein synthesis, mechanism of translation, ~~initia-~~  
~~tion, elongation and termination of synthesis.~~ ~~[20]~~

**OR**

Write short note on following:

[10+10=20]

(a) tRNA

(b) Role of microtubules of microfilaments

5. Comment upon cycling dependent kirases.

[20]

**OR**

Write short note on the following:

[10+10=20]

(a) Cell plate formation

(b) Microbodies

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