

- Note :-**
- 1) All questions are compulsory.
 - 2) Draw neat labeled diagrams wherever necessary.
 - 3) Figures to the right indicates marks.

Q. 1 Answer any two of the following.

20

- a) Define horticulture. Add a note on its impact on environment.
- b) Describe Informal garden and add a note on types of informal garden.
- c) Explain giving 2 examples :
 - i) Avenue
 - ii) Edges
- d) Enlist and explain basic principles of formal garden.

Q. 2 Answer any two of the following.

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- a) Define organogenesis. Add a note on the factors affecting organogenesis.
- b) Give a detailed account of Root culture.
- c) Explain in detail steps involved in gene Cloning.
- d) Explain : i) pBR322 ii) pUC18

Q. 3 Answer any two of the following.

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- a) Calculate coefficient of correlation for the two variables given below :

X	5	9	13	17	21
Y	12	20	25	33	35

- b) The heterozygous tall plants of Pisum sativum were selfed and the generation obtained had 700 tall and 350 dwarf plants, out of a total of 1050 plants. Does the result obtained under field conditions support the Mendelian monohybrid ratio (3 : 1)?
- c) What are Tools of bioinformatics? Give its short description.
- d) Write a note on level of Significance and its value in biological systems.

15

Q. 4 Write Short Note (any three) :

- a) Olericulture
- b) Significance of Botanical Garden
- c) Applications of Plant tissue culture
- d) DNA polymerase
- e) Entrez
- f) Characteristics of Chi-square.

— The End —