



S H Kelkar Collage Devgad
SEM -IV Examination Mar- April 2023
S.Y.B.sc Botany paper –III (Current Trends in Plant Sciences-I)
Code No – USB0403

Duration – 3 hrs.

Max. mark - 100

N. B.: 1) All questions are compulsory.

2) Figures to right indicates full marks.

3) Draw neat labeled diagrams wherever necessary.

Q. 1 A) Fill in the blanks by choosing appropriate word.

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- 1) The term " Horticulture" is derived from two Latin words, 'Hortus', meaning a _____ and 'cultura' , meaning cultivation.
a) garden b) fruit c) vegetable d) flower
- 2) Area separating garden from its surrounding is _____.
a) path b) lawn c) hedge d) edges
- 3) *Pistia* is suitable for _____.
a) lawn b) flower bed c) water garden d) border tree
- 4) To carry out aseptic work, _____ instrument is commonly used.
a) Autoclave b) laminar air flow c) illuminated rack d) none of these
- 5) The pH of a Plant Tissue Culture medium is usually maintained in the range of _____.
a) 4-5 b) 5-6 c) 6-7 d) 8-9
- 6) _____ is commonly used as sterilizing agent for plant tissue culture.
a) Sodium chloride b) sodium sulphate
c) sodium hypochlorite d) barium chloride
- 7) The statistical tool used to evaluate the difference between observed and expected data is called as _____.
a) Chi square test b) Coefficient of correlation c) Z- test d) T test
- 8) The null hypothesis is denoted by _____.
a) H₄ b) H₂ c) H₃ d) H₀
- 9) When the amount of one variable tends no change in second variable, it is called as _____ correlation.
a) linear b) sigmoid c) non- linear d) none of these
- 10) Which of the following is used in lawn preparation _____?
a) *Nymphaea* b) *Tagetes* c) *Ixora* d) *Cynodon*

Q.1.B) Answer the following in one sentence

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- 1) Write two characteristic features of flower bed
- 2) What is pomology? Give one example for the same.
- 3) What is totipotency?
- 4) Mention any two enzymes used for cutting the DNA molecules.
- 5) What is Null Hypothesis? How is it denoted?

Q. 2. Answer any two of the following . 20

- 1) With reference to suitable examples, explain any four of the following .
a) Edges b)lawn c)Hedges d)Avenue
- 2) What is National park? Add note on Sanjay Gandhi National Park.
- 3) Role of botanical gardens in conservation of biodiversity
- 4) Describe water garden and Flower beds.

Q.3 Answer any two of the following. 20

- 1) Give an account of laboratory organization for plant tissue culture.
- 2) Describe the technique of gene cloning.
- 3) Define Totipotency. Describe the importance of Totipotency in Plant Tissue Culture.
- 4) Give an account on any two types of cloning vector .

Q. 4. Answer any three of the following. 20

- 1)Describe the term used in Testing of Chi-square.
- 2)What are the different properties/characteristics of correlation.
- 3)Define history of Information Technology .
- 4)Describe tools of bio-informatives.

Q.5. Write short note on (any four) 20

- 1) Informal Garden.
- 2) Branches of Horticulture.
- 3) Wet Sterilization.
- 4) Micropropagation.
- 5) What is tblastn?