

Q.P. Code :19280

[Time: 2½ Hours]

[ Marks:75]

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
  2. Figures to the right indicates full marks.
  3. Draw neat and labeled diagrams wherever necessary.

**Q. 1 Attempt any two**

15

- a) What are antioxidants? Explain their health benefits.
- b) Explain the role of different nutrients in anaemia.
- c) Discuss the symptoms, causes and diet to control obesity.
- d) Describe the technique of preparation of spawn of edible mushrooms. Add a note on nutritive value of mushrooms.

**Q. 2 Attempt any two.**

15

- a) Explain the aspects of micro propagation with reference to floriculture.
- b) Describe in detail plant cell suspension culture. Add a note on its applications.
- c) Describe protoplast fusion and its technique.
- d) What is Somatic embryogenesis? Explain the technique in detail.

**Q. 3 Attempt any two**

15

- a) Give a brief account of principle and working of a colorimeter.
- b) Discuss in detail working of a spectrophotometer. Add a note on its applications.
- c) Describe the technique of column chromatography.
- d) What is HPLC? Explain its principle and technique.

**Q. 4 Attempt any two.**

15

- a) Describe the method of processing and storage of *Allium sativum*. Add a note on its pests and diseases.
- b) Give a brief account of propagation method and harvesting of *Curcuma longa*. Add a note on its marketing.
- c) Discuss in detail macroscopic, microscopic characters of *Senna* leaf. Add a note on its adulterants.
- d) Give biological source, geographical distribution and microscopic characters of *Clove* bud.

**Q. 5 Attempt any three.**

15

- a) Grading and Marketing of Mushrooms
- b) Skin disorders
- c) Advantages of synthetic seeds
- d) Application of ion exchange chromatography
- e) Chemical constituents of *Acorus calamus*
- f) Microscopic characters of *Strychnos* seeds

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