**Time- 2 ½ Hours** **Marks-75**

**Please check whether you have got the right question paper.**

**N.B. 1. All questions are compulsory**
**2. Draw neat labelled diagrams**
**3. All questions carry equal marks**

**Q1 Attempt any two** **15**

a Define dietary antioxidants. Add a note on the health benefits of dietary antioxidants.
b Enumerate the role of food as medicine in treating obesity.
c Explain the relationship of diet and skin health.
d Elaborate on the method of cultivation of *Pleurotus.*

**Q2 Attempt any two** **15**

a Give an account on the principle involved in micropropogation technique with reference to floriculture
b What is plant cell suspension culture? Add a note on importance of cell suspension culture .
c What are artificial seeds? Describe the procedure for the production of artificial seeds.
d Explain the technique of isolation of protoplast .Add a note on Somatic hybridization.

**Q3 Attempt any two** **15**

a Explain in detail the principle & working of a colorimeter.
b Give a detailed account of instrumentation of spectrophotometer.
c Give a brief account of the detectors used in HPLC.
d What is Ion Exchange Chromatography? Add note on types of resins used.

**Q4 Attempt any two** **15**

a Describe the propogation methods and harvesting of *Acorus calamus.*
b Describe the methods of processing and storage of *Curcuma longa*. Add a note on cultivation practices.
c Describe biological source, macro and microscopical characters of Clove buds.
d Describe chemical constituents and therapeutic uses of *Strychnos nux-vomica* seeds.

**Q5 Attempt any three** **15**

a Fortification of food of patients with anaemia .
b Grading and packaging of mushrooms.
c Protoplast fusion.
d Advantages of somatic embryogenesis.
e Applications of colorimeter.
f Post-harvest processing of *Allium sativum.*

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