

**POST GRADUATE DIPLOMA IN FOOD
SCIENCE AND TECHNOLOGY (PGDFT)**

Term-End Examination

June, 2016

**MFT-009 : FRUIT AND VEGETABLE
TECHNOLOGY**

Time : 3 hours

Maximum Marks : 70

Note : Answer any five questions. All questions carry equal marks.

1. (a) What do you understand by the composition of fruits and vegetables? justify the statement that fruits and vegetables provide nutritional security to the people. 7
- (b) List the pre-harvest factors responsible for post harvest losses of fruit and vegetables and explain the role of calcium and nitrogen. 7
2. Write short notes on any four of the followings :
 - (a) Pasteurization 4x3.5=14
 - (b) Aseptic processing
 - (c) Evaporative cooling system
 - (d) Packaging
 - (e) Chemical control of post harvest diseases
 - (f) Role of pre-cooling in PHM of fruits and vegetables.

3. (a) Why grading is important in marketing of fruits ? Explain with examples. 7
- (b) Describe chemicals used for extension of shelf life of fruits. 7
4. (a) Define the following : 7x1=7
- (i) D value
 - (ii) Z value
 - (iii) Sterilization
 - (iv) F_0 value
 - (v) Blanching
 - (vi) Grading
 - (vii) Exhausting
- (b) Define maturity. Write importance of maturity index and explain the methods of harvesting of fruits and vegetables. 7
5. (a) What is dehydro-freezing ? How it can be achieved and what are advantages of dehydro-freezing ? 7
- (b) Enlist the unit operations of integrated approach for quality and safety of minimally processed fruits and vegetables. Explain any two of them. 7
6. (a) What is canning ? Describe the canning process of fruits and vegetables through a flow chart. 7
- (b) Explain slow v/s quick freezing. 7

7. (a) Define fruit jam. Describe the process of jam making through a flow chart. 7
- (b) Define pickling. Describe preparation of tomato paste. 7
8. (a) Define Marketing Information System (MIS) and enlist the agencies providing market information. 7
- (b) Write **true** or **false** for the following : 7x1=7
- (i) Apple is available from June to October-in India.
 - (ii) Lime has less acidity than aonla.
 - (iii) Aonla is the richest source of vitamin C.
 - (iv) Non-climacteric fruit ripen on tree only.
 - (v) Tapka is related to the maturity of mango.
 - (vi) Senescence is an anabolic processes terminate before death of tissues.
 - (vii) FPO was enforced in 1950.
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