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53 (FPT 401) FPTC-I

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(May)

FOOD PRODUCT TECHNOLOGY-I

(Fruits And Vegetables)

Paper : FPT 401

Full Marks : 100

Pass Marks : 30

Time : Three hours

*The figures in the margin indicate full marks
for the questions.*

Answer any five questions.

1. (a) Compare the present status of fruits and vegetables processing in India and world production. 10
- (b) What are the different types of micronutrients present in fruits ? Explain. 10

Contd.

2. (a) What are the bioactive compounds present in fruits and vegetables ? Explain *each* with its beneficial effects. 10
- (b) What is the effect of heavy application of nitrogenous fertilizers ? 1
- (c) What are the advantages of using corrugated fiber boxes for the packaging of fruits ? 4
- (d) What are the *two* methods of low temperature storage for post harvested fruits and vegetables ? 5
3. (a) What is CAP ? Differentiate between MAP and CAP. 1+3
- (b) Write the advantages and disadvantages of MAP. 4
- (c) How MAP can be created ? Write any limitation of MAP. 5+1
- (d) What are the different package parameters in MAP ? Explain it. 6
4. (a) What is the difference between maturity and ripeness of fruits ? 2

- (b) How fruits are deteriorate during storage ? 5
- (c) What are the technical ways of preserving semi processed fruit products ? 7
- (d) In jam preparation gel formation is affected by which carbohydrate. What is the percentage of ISS in finished marmalade ? What is the role of citric acid in fruit and vegetable processing ? 1+1+4
5. (a) Explain the different steps involved in vegetable processing. 10
- (b) What are the *two* on-line simplified methods of enzyme activity check ? Explain them. 4
- (c) "Tomato juice turns sour without the formation gases". Why ? What is its preventive measure ? 1+1
- (d) How the respiration and transpiration rate of vegetables can be controlled during storage ? How excessive vitamin C losses can be prevented during processing of juice ? 2+2
6. (a) Write about the technologies involved is preparation of jellies. 10

(b) What is mango processing? Write about different processed mango products. 10

7. (a) Write about the processing and different characteristics of any vegetable juice product. 10

(b) What are the defects that arise in vegetables processing and how it can be avoided? 10