22493

12425

03 Hours / 70 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Figures to the right indicate full marks.

(4) Assume suitable data, if necessary.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following: **10**

a) Define Microbial spoilage.

b) Define the term chilling.

c) Define canning.

d) Enlist different types of Vin.

e) State advantages of shell and tube heat exchanger.

f) Enlist problems in Vinegar Production.

g) List foods preserved by acids.

2. Attempt any THREE of the following: **12**

a) Describe the principle and working of Microwave heating.

b) Describe the principles of food preservation.

c) Name any four food products preserved using sugar and salt.

d) Explain in detail the spoilage caused by insect parasites and rodents.

Marks

3. Attempt any THREE of the following: **12**

a) Describe classification of thermal processing.

b) Explain classification of food according to ease of spoilage.

c) Describe height pressure processing in detail.

d) Describe the factors affecting osmotic pressure of Sugar Solution.

4. Attempt any THREE of the following: **12**

a) Differentiate between synthetic and natural food colorants.

b) State advantages and disadvantages of Alcohlic fermation.

c) Describe the classification of food additives.

d) Describe the effect of freezing on constituents of food.

e) Explain steps involved in vinegar production.

5. Attempt any TWO of the following: **12**

a) Describe in detail vapour recompression system.

b) Describe in detail with neat diagram the ohmic heating.

c) Explain the food preservation by following chemicals:

i) Sulphur dioxide

ii) Antioxidants

iii) Antibodies.

6. Attempt any TWO of the following: **12**

a) Describe in detail principle and importance of food process engineering.

b) Describe:

i) Added flavour

ii) Developed flavour

iii) Processed flavour

c) Describe double pipe heat exchanger with its disadvantages.