

# KANYASHREE UNIVERSITY

M.Sc. 3<sup>rd</sup> Semester Examination-2023

Subject: Food & Nutrition

Course-CC 13

Food Processing

Full Marks-40

Time-2.00 Hours

## Group A

[Answer **any four** of the following]

5×4=20

1. Changes taken place during parboiling rice.
2. Pasteurization and commercial sterilization.
3. Nutraceuticals
4. Changes in food during dehydration
5. Fermentation
6. Misbranding
7. Genetically modified food

## Group B

[Answer **any two** of the following]

10×2=20

1. Discuss about deteriorative changes in a sample of edible oil left in open air for one year.  
What is the role of antioxidants in fats and oils? (6+4=10)
2. i) What do you mean by enzymatic and non-enzymatic browning reactions? Explain with suitable examples. (5)  
ii) List down the common food adulterants and their adverse effects on health. (5)
3. i) Write down chemical nature of pectin suitable for setting a jam/jelly.  
ii) What are the factors affecting rate of rancidity?  
iii) What is the function of BHT when added to ghee? Give a chemical structure of BHT.  
iv) Why quick cooling is required after heat processing in canning operation?  
v) Why are exhaust box and can seamer placed closely in canning operation? (1+2+2+3+2=10)
4. i) Differentiate between class I and class II preservatives.  
ii) Why sodium benzoate and potassium meta bisulphate are used instead of benzoic acid and SO<sub>2</sub> respectively as chemical preservatives?  
iii) Discuss mechanisms of action of benzoic acid and SO<sub>2</sub> as preservatives in food.  
iv) Write down the name of one natural and one artificial antioxidants. (3+3+3+1=10)

\*\*\*\*\*