

KANYASHREE UNIVERSITY

M.Sc. 4th Semester Examination-2023

Subject: Food & Nutrition

Course-CC 17

Food Biotechnology

Full Marks-40

Time-2.00 Hours

Group A

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

(5×4=20)

1. Write a short note on Maillard reaction. [5]
2. What do you understand by cryopreservation? Differentiate between quick freezing and slow freezing. [3+2]
3. Write down the importance of germination of pulses. [5]
4. What about the factors that influence drying? What are the metabolic products of phytoestrogen? [3+2]
5. Discuss the process of pasteurization of milk. Mention the role of alkaline phosphatase in it. [4+1]
6. Mention some potential health benefits of polyphenols. What is zero-dimensional nano materials? Give two examples of emulsifiers. [2+2+1]
7. Write down the advantages and disadvantages of fed-batch cultivation. [5]

Group B

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

(10×2=20)

1. Elaborate the factors affecting crystallization of sugar. How starch molecules are changed when heated with water? [5+5]
2. How enzymatic browning can be prevented? How is salami prepared? [5+5]
3. Discuss the importance of nanotechnology in different industrial aspects. Name two commercial antioxidants used in food industry. [8+2]
4. Write down the application of colloids in food industry. Mention the names of primary and secondary metabolites and their commercial significance. [5+5]
