

Chemistry (P.G.)**[CBCS]****M.Sc. First Semester End Examination-2023****(Regular & Supplementary Paper)****PAPER-CEM-104****Full Marks: 40****Time: 02 Hrs.***The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.**Illustrate the answers wherever necessary.***Group A**

- 1. Answer any four questions of the following: 4x2= 8**
- a. Write the physiological importance of food. 2
 - b. Write the benefits of drying of food. 2
 - c. Write the effect of salt on water activity. 2
 - d. Give two application of natural pigments in food industry. 2
 - e. What is flavoring agent? Give example. 1+1
 - f. Give two fungal & algal pigments . 1+1
 - g. Write the function of fat obtain from food. 2
 - h. What do you mean by Protein Energy Malnutrition (PEM)? 2

Group B

Answer any four questions of the following: 8x4= 32

2. What types of disease arise due to deficiency of carbohydrate and vitamins? Write the importance of curcumin and anthocyanins. 4+4

3. a) Define Perishable and Non-perishable food with suitable examples.
b) Discuss how to commonly used preservatives KMS and Sodium Benzoate preserve food. 4+4
4. Briefly describe the relation between water activity and shelf life of food. 8
5. Write the advantage of fermented food. Classify the ferment food with example. 2+6
6. What is oricut food? Write the process to preparation of Pickle and Indian dahi. 2+3+3
7. Write the different source for the contamination of food. Write the common microflora present in milk and milk product, Fruits and vegetable, Fish and meat. 2+2+2+2
8. Write the cause of food spoilage. Write the basic mechanion of food spoilage. Give some example of food spoilage microorganism. 2+3+3
9. a) What are essential & non-essential amino acids?
b) Define complete & incomplete proteins
c) How vegetarians can have complete proteins?
10. Write the prevention method of food poisoning. Write the object of food preservation. Write the process of pasteurization. 2+1+5

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