

**MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR**  
**SEMEISTER END THEORY EXAMINATION, B.TECH. (D.T.) Degree Course**

Semester	: VII (Old Pattern)	Academic Year	: 2015-2016
Course No.	: DC- 417	Course Title	: <b>Food Chemistry</b>
Credits	: 2+1=3	Total Marks	: 80
Day & Date	: Friday, 29/01/2016	Time	: 15.00 to 17.00 hrs.

- Note :**
- 1) Solve **Any Five** questions from **Section 'A'**.
  - 2) All questions from **Section 'B'** are compulsory.
  - 3) All questions carry equal marks.

**SECTION – 'A' .**

- Q. 1 Differentiate between free water and bound water in food. Discuss the role of  $a_w$  in storage stability of foods. (10)
- Q. 2 Classify tea. Discuss in detail different processing steps involved in manufacturing of black tea. (10)
- Q. 3
- a) Discuss changes occurring during deep fat frying. (05)
  - b) Discuss the applications of hydrolases in food industry. (05)
- Q. 4. Describe the following.
- a) Physicochemical changes occurring during baking of bread. (06)
  - b) Climacteric respiration. (02)
  - c) Non-nutritive sweeteners. (02)
- Q. 5 Discuss the followings.
- a) Modified starches and its food applications. (04)
  - b) Physico-chemical changes taking place during ripening of fruits. (04)
  - c) Types of flours used in baking industry. (02)
- Q. 6 Classify food preservation methods. Discuss preservation of foods through irradiation. (10)
- Q. 7 Give classification of food proteins. Discuss theories for formation of texturized proteins. (10)

**SECTION – 'B'**

- Q. 8 Choose the most appropriate answer from the options given below. (10)
- i) ..... is an example of complex lipids.
    - a) Phospholipids
    - b) Triacylglycerol
    - c) Cholesterol
    - d) Diacylglycerol
  - ii) Glucono delta-lactone is ..... type of food additive.
    - a) Colour
    - b) Emulsifier
    - c) Acid regulator
    - d) Dough conditioner
  - iii) Benzoic acid is most effective preservative against .....
    - a) Bacteria
    - b) Yeast and molds
    - c) Virus
    - d) Protozoa
  - iv) The major protein in wheat flour is .....
    - a) Zein
    - b) Gluten
    - c) Casein
    - d) Gelatin

**(P.T.O.)**

- Q. 9** Answer the following in one line.

(10)

- Q. 10 Define the following.

(10)

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