

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR SET-II
SEMESTER END THEORY EXAMINATION, B.Tech. (D.T.) Degree Course

Semester	: VII (New Pattern)	Academic Year	: 2015-2016
Course No.	: DC-417	Course Title	: Food Chemistry
Credits	: 2+1 = 3	Total Marks	: 50
Day & Date	: Friday, 29/01/2016	Time	: 15.00 to 17.00 hrs.

- Note :** 1) All questions from **Section 'A'** are compulsory;
2) Solve **Any Five** questions from **Section 'B'**.
3) Draw neat and well labeled diagram wherever necessary.

SECTION – 'A'

Q.1 A) Choose the most appropriate answer from the options given below. (05)

- i) Deficiency of vitamin D in children causes.....
 - a) Beri-Beri
 - b) Rickets
 - c) Scurvy
 - d) Night blindness
- ii) Glycoproteins show better.....
 - a) Gelation
 - b) Foaming
 - c) Solubility
 - d) Flavour binding
- iii) Colloidal food additives are.....
 - a) Emulsifier
 - b) Stabilizers
 - c) Both a and b
 - d) None of these
- iv) Pesticides which are fat soluble.....
 - a) OC Group
 - b) OP Group
 - c) Both a and b
 - d) None of these
- v) Which sweetener is amino acid based.....
 - a) Cyclamate
 - b) Saccharine
 - c) Alitame
 - d) None of these

B) Give scientific reasons for the following. (05)

- i) Presence of heavy metals in foods.
- ii) Boiling of soyabeans before consumption.
- iii) Occurrence of radionuclides.
- iv) Hydrolytic rancidity.
- v) Meat tenderization.

Q.2 A) Give two examples for the following. (05)

- i) Fat soluble vitamins
- ii) Carbohydrates
- iii) Food additives
- iv) Beverages
- v) Preservatives

B) Answer the following in one line. (05)

- i) Threshold value
- ii) Toxic trace elements
- iii) Gluten
- iv) Carrageenan
- v) Fat replacers

(P.T.O.)

SECTION - 'B'

- Q. 3 What are the various physico-chemical changes taking place during baking? Explain. (06)
- Q. 4 Enlist and explain the types of water and discuss the moisture isotherm for intermediate moisture food. (06)
- Q. 5 Define the term contaminants. Describe the various food contaminants. (06)
- Q. 6 Write short notes on. (02)
- A) Artificial sweeteners. (02)
 - B) Physico-chemical changes during processing of coffee. (02)
 - C) Physico-chemical changes during ripening of fruits. (02)
- Q. 7 A) Write down the classification of food proteins. (03)
- B) Discuss about functional properties of pectins. (03)
- Q. 8 A) Write down the classification of legumes. (02)
- B) Discuss about safety of food additives. (02)
- C) Importance of food. (02)
- Q. 9 A) Explain in details unsaponifiable materials in lipids. (02)
- B) Write down the classification of lipids. (04)
