



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 182405

Roll No.

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B. Tech.

(SEM. IV) THEORY EXAMINATION, 2014-15
FOOD ADDITIVES

Time : 3 Hours]

[Total Marks : 100

Note : Attempt all questions. Each question carries equal marks.

1. Attempt any four parts of the following : $4 \times 5 = 20$
 - (a) Discuss the various functions of food additives in food processing industry.
 - (b) Differentiate between food additives and adulterants.
 - (c) Differentiate between Intentional & Non Intentional additives.
 - (d) Define contaminants according to FSSA-2006.
 - (e) Comment on 'Toxicological evaluation of food additives'.

2. Attempt any two parts of the **2×10=20**
following :
- (a) Discuss the functions of Acids used in foods. Enlist and describe the acids used in food industry with the maximum level of use.
 - (b) Give the classification of Emulsifiers. Discuss the HLB system for selecting emulsifiers.
 - (c) What do you understand by masticatory substances? Discuss its importance in food applications.
3. Attempt any two parts of the **2×10=20**
following :
- (a) What are Antioxidants? Discuss the mechanism of action of antioxidants.
 - (b) What do you mean by Non-Nutritive Sweeteners? Discuss properties of major non-nutritive sweeteners commonly used in food industry.
 - (c) What do you understand by Anti-caking agents? Discuss their role in food processing.
4. Attempt any two parts of the **2×10=20**
following :
- (a) What are Anti-microbial agents? Discuss the mechanism of action of any two of them.
 - (b) Give the classification of preservatives? Discuss the mechanism of preservation of food by means of high concentration of sugar.

- (c) Comment on “Utility of Inert gases in Food Industry”. Also discuss the utility of Ethylene in Food Industry.
5. Attempt any two parts of the **2×10=20** following :
- (a) Differentiate between Colorants and Color Enhancers. Discuss the role of color bleaching agents in food industry.
- (b) Comment on “Flavours generated during processing”.
- (c) Write an explanatory note on Essential Oils and Oleo-resins.
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