

Total number of printed pages—4

53 (FPT 703) FAAL

2013

(May)

**FOOD ADDITIVES AND
LEGISLATION**

Paper : FPT 703

Full Marks : 100

Pass Marks : 30

Time : Three hours

***The figures in the margin indicate full marks for
the questions.***

Answer any five questions out of seven

1. a) Explain the mechanism of action of acids in chemical leavening system. What is the effect of temperature on such systems ? 8
- b) Write a short note on sequestrants and buffer systems. 4+4=8
- c) Explain the role of thiodipropionate in preventing the formation of eponides. Give the reactions. 4

Contd.

2. a) Define prooxidants and what do you mean by synergistic action. 5
- b) What is the role of a clarifying agent? Give *at least four* examples of clarifying agents and its application. 7
- c) Give an example of a flour bleaching agent and explain its mode of action. 4
- d) What are the functions of an anticaking agent? Explain with appropriate examples. 4
3. a) Write a short note on :
- i) Sweet taste substances 3
- ii) Bitterness 3
- iii) Pungent taste 3
- iv) Astringency 1
- b) Write a short note on :
- i) Sulphur containing volatiles 5
- ii) Process induced flavours. 5
4. a) Define hydrocollorids. What are their properties? 3

- b) What are the functions of an antibiotic in food applications ? Explain with *two* examples. 6
- c) What is the role of sodium aluminium sulphate and calcium chloride in pickles and processed fruits? 3
- d) Explain with examples various applications of bases in food products. 8
5. a) Write a short note on :
- i) Carbohydrate fat mimetics 2
- ii) Protein fat mimetics 3
- iii) Synthetic fat replacers 4
- iv) Propellents and gases 3
- b) Explain the various methods of color preservation in detail. 8
6. a) What do you mean by shelf-life studies ? What are the primary and secondary quality attributes ? 4
- b) Write a short note on : 4+4=8
- i) MFPO
- ii) International standards.

- c) What are certified colors ? What is its application? 3
- d) What are polyols ? Briefly explain. 3
- e) Define copigmentation. 2
7. a) Write a short note on *any four* antimicrobial agents. 4×4=16
- b) Define food additive. Explain its significance in modern food applications. 4