



End Semester Examination – Nov/Dec – 2016

Code : 14FP3003
Sub. Name : TECHNOLOGY OF FOOD FLAVOURANTS & COLOURANTS

Semester : 2016-17 ODD
Duration : 3hrs
Max. marks : 100

ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	What is flavour enhancer and flavour modifier? Discuss with examples.	CO1	8
	b.	Describe the biogenesis of fruit flavour through carbohydrate metabolism	CO1	12
(OR)				
2.	a.	Describe the biogenesis of fruit flavour through protein metabolism	CO1	10
	b.	Explain how the tastes felt by the tongue are transmitted into the brain and also explain the various tastes.	CO1	10
3.	a.	Elaborate on the development of flavours during food processing	CO1	5
	b.	Describe the biogenesis of fruit aroma by fat metabolism	CO1	5
	c.	Discuss the chemicals causing pungency, astringency and cooling effect in food.	CO1	10
(OR)				
4.	a.	Explain the chemistry and extraction of cochineal pigments	CO1	10
	b.	Explain the production of flavour through microbial method	CO1	10
5.	a.	How the monascus pigments are produced through fermentation route and what is its advantage of solid state fermentation over submerged culture.	CO1	10
	b.	Elaborate on the structure relationship of odor with suitable examples	CO1	10
(OR)				
6.	a.	What is caramel and describe its manufacture on large scale. What are its applications?	CO1	10
	b.	Explain the principles of e-nose technology and discuss the types of sensor involved	CO2	10
7.	a.	What are the main advantages of super critical fluid extraction? What are the solvents that are used and what are the effects of the solvents?	CO2	10
	b.	Illustrate on the production of liquid flavorings	CO1	10
(OR)				
8.	a.	Discuss in detail on recent developments in the analysis of flavour and colours with specific reference to (i) Head space analysis (ii) Static and dynamic methods	CO1	12
	b.	What is tristimulus colorimetry and discuss its application to the food industry.	CO2	8
<u>Compulsory:</u>				
9.	a.	Write briefly on the functions and applications of classical two dimensional gas chromatography	CO3	10
	b.	What is curcumin? and describe its manufacture on large scale	CO2	10