



# MAHATMA GANDHI COLLEGE

THIRUVANANTHAPURAM

POST GRADUATE DEPARTMENT OF CHEMISTRY & RESEARCH  
CENTER

## NOTICE

### ADD-ON COURSE –FOOD CHEMISTRY

Department of chemistry is conducting an Add-On course titled "FOOD CHEMISTRY" for the academic year 2022-2023. This course aims to provide students with an in-depth understanding and their practical applications.

Course Duration: 30 hour

**Last Date for Registration: 6/09/22**

For any queries or additional information, please contact the course coordinator, Head, Department of Chemistry.

**Head, Department of Chemistry**

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**Thiruvananthapuram**

## FOOD CHEMISTRY

### Unit 1

#### Chemical composition of food

Major components of food - Carbohydrate, Proteins and Amino Acids, Lipids and Fatty Acids, Minerals, Vitamins, Fibers- General classification with examples, Sources and Functions, Moisture content in food and water activity.

6hours

### Unit 2

#### Food additives

Definition, Characteristics, Classification- based on origin-natural and synthetic, based on technological function-Stabilizers of physical characteristics, Inhibitors of chemical and biological alterations, Modifiers of organoleptic characters, Improvers and correctors, based on types of food additives- Flavouring agents, Enzyme preparations, Other additives including preservatives, colouring agents, Non-sugar sweeteners, Aroma substances, Functional role of food additives, toxicology , safety issues, Examples for flavour enhancers – monosodium glutamate (MSG), maltol and menthol.

12hours

### Unit 3

#### Food analysis

Compositional analysis of foods-moisture and total solid analysis, ash analysis, fat analysis, protein analysis, carbohydrate analysis, vitamin and mineral analysis.

6 hours

  
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### Unit 3

#### **Adulteration in food**

Adulteration in foods- Sources, health risks and detection methods,  
Prevention of food adulteration act (PFA), 1954.

6 hours

#### **REFERENCES**

1. FOOD SCIENCE, SEVENTH EDITION, B SRILAKSHMI
2. FOODS: FACTS & PRINCIPLES, SHAKUNTALA MANAY
3. A LABORATORY MANUAL OF FOOD ANALYSIS, SHALINI SEHGAL

## **COURSE OUTCOMES**

1. Identify additives added to foods for various purposes
2. Acquire knowledge of adulteration and toxicity of food
3. Analysis of food components

Academic <del>YEAR</del> 2022-2023		
Sl.No	Food Chemistry	
	Name	Candidate Code
1	Akhilchandran	63521118001
2	Anagha B	63521118002
3	Anjali S Kumar	63521118003
4	Anjana A	63521118004
5	Anjitha K.S	63521118005
6	Devika Suresh	63521118006
7	Divya Dileesh	63521118007
8	Geethu G	63521118008
9	Praveena V.P	63521118013
10	Kavya M.K	63521118010
11	Meenakshi .S	63521118011
12	Parvathy Jaysree	63521118012
13	Aiswarya S	63522118001
14	Anjali S Narayan	63522118002
15	Anjana Bayagod	63522118003
16	Anju Kunjumon	63522118004
17	Anupama A.S	63522118005
18	Bhadra C Vikas	63522118006
19	Gangadevi R	63522118007
20	Gokul M	63522118008
21	Gopika S Kumar	63522118009
22	Lipson Raju	63522118010
23	Noufiya N.S	63522118011
24	Akash Vijayan	23522118002
25	Abhinav P.G	23522118012
26	Abhirami J	23522118013
27	Adithya R.S	23522118004
28	Akhil Anil	23522118006
29	Al Ameen M.S	23522118006
30	Al Hafis R.H	23522118007
31	Aleena R.V	23522118008
32	Amal Gopan	23522118009
33	Anarsha A.S	23522118010
34	Gopika S Anju	23522118011
35	Nandana A	23522118012
36	Arjun B.K	23522118013
37	Arjun S.S	23522118014
38	Asna A	23522118015
39	Athrishna	23522118016
40	Dhanalekshmy A	23522118017
41	Gopika S	23522118018
42	Nandana Anand	23522118019
43	Nandana S.A	23522118020
44	Parvathy B	23522118021
45	Pranav R.M	23522118022
46	Sidharth S.B	23522118023
47	Sivalekshmy S.J	23522118024

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48	Sreebhadra A	23522118025
49	Ahalya P.S	23522118026
50	Anjana M	23522118027
51	Aleenakrishna	23522118028
52	Athulya A.D	23522118029
53	Goutham R	23522118030
54	Gowri S.B	23522118031
55	Krishnanandu	23522118032
56	Malavika M	23522118033
57	Niranjana T.T	23522118034
58	P.Gangaprabhakar	23522118035
59	Prejith A	23522118036
60	Rahul A.S	23522118037
61	Reshma A	23522118039
62	Sailekshmy B.S	23522118040
63	Surumi S.N	23522118041
64	Swathy R	23522118042
65	Theershan A	23522118043
66	Abhirami A	23522118044
67	Adithya A.G	23522118045
68	Aswin S Kumar	23522118046
69	Arya S.N	23522118047
70	Bijin B	23522118048
71	Devika S.R	23522118049
72	Kiran Rajesh S	23522118050
73	Reslin V.R	23521118851
74	Devanarayanan	23521118852

  
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**Food Chemistry**  
**Model Question Paper**

**Max.Marks:10**

**Each question carries 1 mark**

1. Give an example for essential amino acid.
2. What are textured protein products?
3. What is MSG?
4. Give an example for a natural food additive.
5. What is Benedict's reagent?
6. What are mycotoxins?
7. When did PFA enacted?
8. What is Pasteurization?
9. Give any two traditional methods of food processing.
10. What are the 3 types of fibre?

**(10x1=10 marks)**

  
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2022 - 2023

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Food chemistry

	Name	candidate number	Marks
1	Akhil chandran	6352118001	10
2	Angela B	6352118002	10
3	Angali S Kumar	6352118003	9
4	Angana A	6352118004	10
5	Angella K.S	6352118005	8
6	Devika Swath	6352118006	7
7	Divya Dilish	6352118007	6
8	Beethu G	6352118008	6
9	Praveena V.D	6352118013	9
10	Kavya M.K	6352118010	10
11	Meenakshi S	6352118011	8
12	Parvathy Jagan	6352118012	7
13	Aiswarya S.	6352218001	6
14	Angaly S Naxyan.	6352218002	8
15	Angana Bayagode	6352218003	9
16	Anju kunjumon	6352218004	10
17	Anupama A.S	6352218005	9
18	Bhadra C.Vikas	6352218006	8
19	Crangadevi R	6352218007	7
20	Crakul M	6352218008	6
21	Gop. Ica S. kumar	6352218009	9
22	Lipson Rayu	6352218010	7
23	Noufira N.S	6352218011	8
24	Akash Vijayar	2352218002	7
25	Abhinav P.G	2352218012	6
26	Abhirami J	2352218013	6
27	Adithya R.S	2352218004	7
28	Akhil Anil	2352218006	8



29	Al Ameen NS	23522118006	10
30	Al Hafis R.H	23522118007	9
31	Aleena R.V	23522118008	8
32	Amal Gopan	23522118009	7
33	Ancusha AS	23522118010	6
34	Chopika S. Anya	23522118011	10
35	Nandana Am	23522118012	10
36	Arjuna B.C	23522118013	9
37	Arjun S.S	23522118014	8
38	Asna A	23522118015	7
39	A. Hrishna	23522118016	8
40	Dhana Lakshmi	23522118017	8
41	Chopika S.	23522118018	9
42	Nandana Anand	23522118019	9
43	Nandana SA	23522118020	10
44	Preethy B	23522118021	10
45	Pranav R.M	23522118022	10
46	Sidharth SB	23522118023	9
47	Sivalakshmi S	23522118024	9
48	Sreebhadr A	23522118025	8
49	Ahalya P.S	23522118026	8
50	Anjana M	23522118027	8
51	Aluna Krishna	23522118028	7
52	Athulya A.D	23522118029	7
53	Coatham R	23522118030	8
54	Coovri SB	23522118031	7
55	Krishna Nande	23522118032	8
56	Malavika M	23522118033	9
57	Niranjana T	23522118034	10
58	P. Ganga	23522118035	10
	Prabhakar		
59	Preeth A.	23522118036	8
60	Rahul AS	23522118037	7

61	Rashma A	23522118039	8
62	Sai Lakshmi B.S	23522118040	9
63	Sunumi S.M	23522118041	7
64	Swathy R	23522118042	6
65	Theerthan A	23522118043	10
66	Abhiram A	23522118044	10
67	Adithya A.G	23522118045	10
68	Aswin S. Kumar	23522118046	9
69	Asiya S.N	23522118047	8
70	Bijon B	23522118048	8
71	Devika S.R	23522118049	9
72	Kiran Rajesh	23522118050	9
73	Rushmi V.R	23522118051	1
74	Devanarayana H	23522118052	1
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2022 - 2023

FOOD CHEMISTRY





	21/10/22	10/10/22	21/10/22	21/10/22	21/10/22	21/10/22	21/10/22	21/10/22	21/10/22	21/10/22	14/11/22	12/11/22	24/11/22	5/12/22	9/12/22	21/12/22	16/12/22	20/12/22	4/1/23	11/1/23	16/1/23	20/1/23	21/1/23	21/1/23	
73 Reshma V.R	X	X	X	A	X	X	X	X	X	X	X	X	X	A	X	X	X	X	X	X	X	X	X	X	X
74 Devanarayana H.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
75																									

*[Handwritten Signature]*

Sl No	Name of candidate	Candidate code	slr	1012	1012	1112	1112	2012	2012	2015	2015	2015	2013	2013	2013	
1	AKHIL CLAUDSON B.S		X	X	X	X	X	X	X	X	X	X	X	X	96.8.1/	AKHIL
2	Anoopa B		X	X	X	X	X	X	X	X	X	X	X	X	83.9.1/	ANOOPA
3	Anjali S Kumar		X	X	X	X	X	X	X	X	X	X	X	X	88.9	ANJALI
4	Anjana A		X	X	X	X	X	X	X	X	X	X	X	X	93.5.1/	ANJANA
5	Anjitha K.S		X	X	X	X	X	X	X	X	X	X	X	X	100.1/	ANJITHA
6	Devika Suresh		X	X	X	X	X	X	X	X	X	X	X	X	93.5	DEVIKA
7	Durga Divya		X	X	X	X	X	X	X	X	X	X	X	X	80.6	DURGA
8	Geetha S		X	X	X	X	X	X	X	X	X	X	X	X	90.3	GEETHA
9	Praveena V.P		X	X	X	X	X	X	X	X	X	X	X	X	93.5	PRAVEENA
10	Kanya NK		X	X	X	X	X	X	X	X	X	X	X	X	93.5	KANYA
11	Mcaulskiris		X	X	X	X	X	X	X	X	X	X	X	X	90.3	MCAULSKIRIS
12	Resulthy Jagan T		X	X	X	X	X	X	X	X	X	X	X	X	100	RESULTHY
13	Aswathy S		X	X	X	X	X	X	X	X	X	X	X	X	93.5	ASWATHY
14	Anjali S Nagesan		X	X	X	X	X	X	X	X	X	X	X	X	96.8	ANJALI
15	Anjana Bayadada		X	X	X	X	X	X	X	X	X	X	X	X	93.5	ANJANA
16	Anya Kurjuman		X	X	X	X	X	X	X	X	X	X	X	X	90.3	ANYA
17	Anupama A.S		X	X	X	X	X	X	X	X	X	X	X	X	96.5	ANUPAMA
18	Shadha C Vikas		X	X	X	X	X	X	X	X	X	X	X	X	93.5	SHADHA
19	Sangeetha R		X	X	X	X	X	X	X	X	X	X	X	X	93.1/	SANGEETHA
20	Sakal N		X	X	X	X	X	X	X	X	X	X	X	X	90.3.1/	SAKAL
21	Sopika S Kumar		X	X	X	X	X	X	X	X	X	X	X	X	96.8	SOPIKA
22	Lipika Raju		X	X	X	X	X	X	X	X	X	X	X	X	93.5	LIPIKA
23	Narabe N.S		X	X	X	X	X	X	X	X	X	X	X	X	93.5	NARABE
24	Akash Vijayan		X	X	X	X	X	X	X	X	X	X	X	X	90.1.1/	AKASH
25	Abhisav P.G		X	X	X	X	X	X	X	X	X	X	X	X	92.1/	ABHISAV
26	Abhiram T		X	X	X	X	X	X	X	X	X	X	X	X	93.5.1/	ABHIRAM
27	Aaditya R.S		X	X	X	X	X	X	X	X	X	X	X	X	92.5	AADITYA
28	Akhada Anil		X	X	X	X	X	X	X	X	X	X	X	X	91.6.1/	AKHADA
29	Al Anson M.S		X	X	X	X	X	X	X	X	X	X	X	X	90.8.1/	AL ANSON
30	Al Hagi's R.H		X	X	X	X	X	X	X	X	X	X	X	X	93.5.1/	AL HAGI'S
31	Azeena R.V		X	X	X	X	X	X	X	X	X	X	X	X	88.8.1/	AZEENA
32	Anil Sapan		X	X	X	X	X	X	X	X	X	X	X	X	90.1/	ANIL
33	Anaspha A.S		X	X	X	X	X	X	X	X	X	X	X	X	92.1/	ANASPHA
34	Anya K		X	X	X	X	X	X	X	X	X	X	X	X	91.5.1/	ANYA
35	Aparna A.R		X	X	X	X	X	X	X	X	X	X	X	X	88.1/	APARNA
36	Arijun B.L		X	X	X	X	X	X	X	X	X	X	X	X	92.1/	ARIJUN
37	Arijun S.S		X	X	X	X	X	X	X	X	X	X	X	X	93.1.1/	ARIJUN

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	6/2	10/2	13/2	17/2	20/2	24/2	3/3	9/3	14/3	20/3		
38	Asira A	X	X	X	A	A	X	X	X	X	92/	Asira
39	Alkafina S S	X	X	X	X	A	X	X	X	X	91.5/	Alkafina
40	Dharaletshmi A	X	X	X	X	X	X	X	X	X	90.2/	Dharaletshmi
41	Sopika S	X	X	X	X	X	X	X	X	X	89.9	Sopika
42	Nandana Anand	X	X	X	X	A	X	X	X	X	90/	Nandana
43	Nandana SA	X	X	X	X	X	X	X	X	X	90.3/	Nandana
44	Pavithy B	X	X	X	A	X	X	X	X	X	88.2/	Pavithy
45	Pranav RM	X	X	X	X	X	X	X	X	X	90/	Pranav
46	Sidharth SB	A	X	X	X	X	X	X	X	X	92/	Sidharth
47	Sureeshmi SJ	X	X	X	X	X	X	X	X	X	90/	Sureeshmi
48	Sree Bhadra A	X	X	X	X	X	X	X	X	X	89.1/	Sree Bhadra
49	Aludya PS	X	X	X	X	X	X	X	X	X	89.2/	Aludya
50	Ajwina M	A	X	X	A	X	X	X	X	X	85.1/	Ajwina
51	Alaiva Krishnam S	X	X	X	X	A	X	X	X	X	88.2/	Alaiva
52	Arudhya A.D	X	X	X	A	X	X	X	X	X	92/	Arudhya
53	Goutham R.	X	X	X	X	A	X	X	X	X	93.1/	Goutham
54	Gowri S B	X	X	X	X	X	X	X	X	X	92.5/	Gowri
55	Krishna Nandana S	X	X	X	X	X	X	X	X	X	98.1/	Krishna
56	Melavika M	X	X	X	X	X	X	X	X	X	96/	Melavika
57	Alisangam T T	X	X	X	X	X	X	X	X	X	95/	Alisangam
58	P. Ganapathi Prabhakar	X	X	X	X	X	X	X	X	X	92.1/	P. Ganapathi
59	Pavithy A	X	X	X	X	X	X	X	X	X	90/	Pavithy
60	Rishul A S	X	X	X	X	X	X	X	X	X	88/	Rishul
61	Redhmic A.	X	X	X	A	X	X	X	X	X	90.1/	Redhmic
62	Saileshwini B S	X	X	X	X	A	X	X	X	X	92.1/	Saileshwini
63	Susumu S H	X	X	X	X	X	X	X	X	X	93.1/	Susumu
64	Srinthy R	X	X	X	X	A	X	X	X	X	90.1/	Srinthy
65	Theresia A	X	X	X	X	X	X	X	X	X	92/	Theresia
66	Abhisaram A.	X	X	X	X	X	X	X	X	X	91.5/	Abhisaram
67	Adhithya A.S	X	X	X	A	X	X	X	X	X	90.2/	Adhithya
68	Aarika S N	X	X	X	X	X	X	X	X	X	88/	Aarika
69	Aswini Skumra	X	X	X	X	X	X	X	X	X	90/	Aswini
70	Bejith B	X	X	X	X	X	X	X	X	X	91/	Bejith
71	Devika S R	X	X	X	X	X	X	X	X	X	92/	Devika
72	Kesava Rajesh S	X	X	X	X	X	X	X	X	X	93/	Kesava
73	Reshma V R	X	X	X	A	X	X	X	X	X	90/	Reshma
74	Dhanasajamma H	X	X	X	X	X	X	X	X	X	85/	Dhanasajamma

HEAD RESEARCH CENTRE  
 Dept. of Chemistry & Research Centre  
 Anna University  
 Chennai - 600 025



**MAHATMA GANDHI COLLEGE**  
DEPARTMENT OF CHEMISTRY  
CERTIFICATE OF COMPLETION

*This is to certify that Akhil Chandran B.G has successfully completed the Add On course entitled*

**" FOOD CHEMISTRY "**




Dr. Sikha T.S  
Course coordinator



Dr. Sikha T.S  
Head of the Department

31/03/2023



H.E.A.D. of Chemistry & Research Centre  
Mahatma Gandhi College  
Tiruvananthapuram





**MAHATMA GANDHI COLLEGE**  
DEPARTMENT OF CHEMISTRY  
CERTIFICATE OF COMPLETION

*This is to certify that Swathy R has successfully completed the Add On course entitled*

**“ FOOD CHEMISTRY”**



Dr. Sikha T.S  
Course coordinator



Dr. Sikha T.S  
Head of the Department

31/03/2023

HEAD, DEPARTMENT OF CHEMISTRY  
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SUMMARY REPORT OF ADD-ON COURSE – FOOD CHEMISTRY (2022- 2023)

Considering the importance of food chemistry in the society we started an Add on course on food chemistry and it was successfully completed in the academic year 2022-2023, seventy four students were enrolled for the course. Classes conducted from 06/10/2022 to 20/03/2023 for 30 hours. Here we concentrated on the theory part.

After the completion of the course, students were assessed by written examination. Those who secured 60% marks and above in written examinations were honoured by certificates.



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