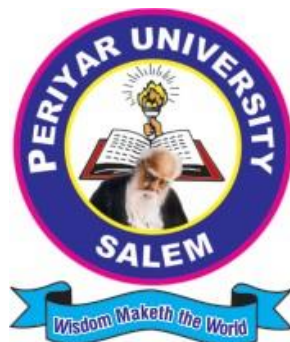


PERIYAR UNIVERSITY

PERIYAR PALKALAI NAGAR

SALEM – 636 011



SYLLABUS FOR

B.Sc. Food Technology

**CHOICE BASED CREDIT SYSTEM
OUTCOME BASED EDUCATION**

(For Candidates admitted in the Colleges affiliated
to Periyar University from 2022 - 2023 onwards)

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REGULATIONS

1. Preamble:

B.Sc. Food Technology curriculum has been structured in compliance with UGC Model curriculum and TANSCHÉ guidelines. Core courses addresses the science of food, food chemistry, food engineering, food processing and food preservation, food safety and quality assurance, food innovation, food packaging, technology of cereals, pulses, oilseeds, fruits, vegetables, egg, milk, fleshy foods, spices and condiments and food entrepreneurship. The programme empowers the capacity of the students as per the job role specific requirements of food industries.

2. Eligibility for Admission

Candidates for admission to the first year of the Degree of B.Sc. Food Technology shall be required to have passed the Higher Secondary Examinations conducted by the Government of Tamil Nadu or any other equivalent examination.

As per Government Order (2020-2021) G.O.(1D) No.110, Higher Education (G1) Department, dated 18.07.2020.

- **General Stream:** Chemistry with Science subjects like Biology/Home Science/Botany and Zoology/Computer Science/Computer Applications/Microbiology/Food Service Management/Nutrition and Dietetics
- **Vocational Stream:** Agriculture/Home Science/Engineering and Technology

3. Eligibility for the Award of the Degree

A candidate shall be eligible for the award of the Degree only if she has undergone the prescribed course of study for a period of not less than three academic years, passed the examinations of all the six semesters prescribed.

4. Course of Study

The main streams of study for B.Sc. Food Technology shall consist of the following:

PART-I: Tamil / Other languages

PART-II: English

PART -III: Core Courses, Elective Courses and Allied Courses

PART-IV: SBEC*/ NMEC**/Add-on course / EVS***/ Value Education
 PART-V: **Extension Activities:** NSS / NCC / Sports / YRC and other
 Extracurricular activities offered under part V of the
 programmes

*Skilled Based Elective Course

** Non Major Elective Course

*** Environmental Science

Non major elective course may be chosen by other stream students of the respective colleges and the same must be communicated to the University.

5. Examinations

Semester pattern is adopted for examinations. Candidates failing in any course will be permitted to appear for such failed course at subsequent examinations. Examinations for I, III and V semesters will be held in November/ December and for II, IV and VI semesters will be held in April / May month of every year.

Requirement to appear for the examination A candidate shall be permitted to appear for the university examinations for any semester (practical/theory) if he / she secure not less than 75% of attendance in the number of working days during the semester.

6. Passing Minimum

A candidate who secures not less than 40% in the End Semester Examination (ESE) and 40% marks in the ESE and Continuous Internal Assessment (CIA) put together in any course of Part I, II, III & IV shall be declared to have passed the examination in the course (Theory or Practical).

7. Classification of Successful Candidates

Candidates who secure not less than 60% of the aggregate marks in the whole examination shall be declared to have passed the examination in First Class. All other successful candidates shall be declared to have passed in the Second Class. Candidates who obtain 75% of the marks in the aggregate shall be declared to have passed the examination in First Class with Distinction provided they pass all the examinations prescribed for the course at the first appearance. Candidates who pass all the examinations (Part I, II, III & IV) prescribed for the course in the **FIRST APPEARANCE ITSELF ALONE** is eligible for ranking.

8. Maximum Duration for the completion of the programme:

The maximum duration for completion of the UG Programme shall not exceed twelve semesters (6 years).

9. Commencement of this Regulation:

These regulations shall take effect from the academic year 2022-2023, i.e. for students who are to be admitted to the first year of the B.Sc.Food Technology programme during the academic year 2022-2023 and thereafter.

10. Pattern of Question Paper (All Courses)

Time : 3 Hours

Maximum:75 Marks

Part A : 15 x1 =15 (Multiple Choice) (Three questions from each unit)

Part B : 2 x 5 = 10 (Any Two questions) (One question from each unit)

Part C : 5 x 10 = 50 (One question from each unit with internal choice)

11. Evaluation Pattern for Continuous Internal Assessment (CIA)

11A. THEORY COURSES

Component	Time	Appearing marks	CIA marks	Minimum Pass
Test I	2 hours	50	5	40 %
Test II	2 hours	50	5	40 %
Assignment (minimum 2) Assignment 1 - Problem Based Activities Assignment 2 - Field/Industrial Visit Reports		10	10	40 %
Student Seminar with power point presentation		5	5	40 %
Total Marks for CIA		115	25	10
Total Marks for ESE		75	75	30
Minimum attendance for each theory course to appear for ESE				75%

11B. PRACTICALS

Component	Appearing marks (Average)	CIA marks	Minimum Pass
Performance in each experiment	10x5 = 50	20	40 %
Internal Practical Test 1	60	10	40 %
Internal Practical Test 2	60	10	40 %
Total Marks for CIA	170	40	16
Total Marks for ESE	60	60	24
Minimum attendance for each practical course to appear for ESE			75%

Programme Specific Outcomes

PO1. KNOWLEDGE

Students will be able to

- define and disseminate the updated food technology related information to the society
- recognize the traditional practices, cultural beliefs and ethos in food production, processing and supply to the market

PO2. SKILLS

Students will be able to

- address the skill gap in the divisions of food industrial sector and food business operations
- apply the scientific methods and techniques, as well as quality management processes related to food technology.
- Innovate unique solution to solve the problems in the food industries and food supply chain management
- administer the SDGs and food related societal issues using sustainable models
- naturalizes the food plant layout and design, manufacturing protocol, HACCP implementation and complete quality assurance of food business operation

PO3. COMPETENCIES

Students will be able to

- guide and supervise effectively the entire process of food manufacturing unit with coordination
- train and empower the food handlers with good attitude and ethos
- apply technical knowledge acquired in the field of food technology in his career platforms confidently with professional ethics.

SEMESTER WISE CURRICULUM FRAMEWORK AND SCHEME OF EXAMINATION

Semester I								
Part	Course Type	Course Title	TL Hrs. /week	Examination				Credits
				Hrs.	CIA marks	ESE marks	Total marks	
I	Language	Tamil I or Other language	3	3	25	75	100	3
II	Language (English)	English I – Communicative English	3	3	25	75	100	3
III	Core I	Fundamentals of Food Science and Chemistry	5	3	25	75	100	5
	Core Practical I	Fundamentals of Food Science and Chemistry Practical	6	-	-	-	-	-
	Allied I	Chemistry I	4	3	25	75	100	4
	Allied Practical I	Chemistry I Practical	3	-	-	-	-	-
IV	Add-on Course	Professional English I	4	3	25	75	100	4
	Value Education	Food Culture and Ethics in Literature	2	3	25	75	100	2
Total			30	18	150	450	600	21

Semester II								
Part	Course Type	Course Title	Hrs. /week	Examination				Credits
				Hrs.	CIA marks	ESE marks	Total marks	
I	Language	Tamil II or other language	3	3	25	75	100	3
II	Language	English II- Communicative English	3	3	25	75	100	3
II	NMSDC	Effective English	2	2	25	75	100	2
III	Core II	Principles of Food Processing and Preservation	5	3	25	75	100	5
	Core Practical II	Principles of Food Processing and Preservation Practical	6	3	40	60	100	3
	Allied I	Chemistry II	4	3	25	75	100	4
	Allied Practical I	Chemistry I and II Practical	3	3	40	60	100	2
	Core Practical I	Fundamentals of Food Science and Chemistry Practical	-	3	40	60	100	3
IV	Add-on course	Professional English II	4	4	25	75	100	4
Total			30	26	265	630	900	29

Semester III								
Part	Course Type	Course Title	Hrs. /week	Examination				Credits
				Hrs.	CIA marks	ESE marks	Total marks	
I	Language	Tamil III or other language	3	3	25	75	100	3
II	Language	English III- Communicative English	3	3	25	75	100	3
III	Core III	Fundamentals of Food Engineering	5	3	25	75	100	5
	Core Practical III	Fundamentals of Food Engineering Practical	6	-	-	-	-	-

IV	Allied II	Food Safety and Microbiology I	4	3	25	75	100	4
	Allied Practical II	Food Safety and Microbiology Practical I	3	-	-	-	-	-
	SBEC I	Food Product Innovation	3	3	25	75	100	3
	NMEC I	Food Preservation	3	3	25	75	100	3
Total			30	18	150	450	600	20

Semester IV								
Part	Course Type	Course Title	Hrs. /week	Examination				Credits
				Hrs.	CIA marks	ESE marks	Total marks	
I	Language	Tamil IV or other language	3	3	25	75	100	3
II	Language	English IV- Communicative English	3	3	25	75	100	3
III	Core IV	Technology of Cereals, Pulses and Oilseeds	5	3	25	75	100	5
	Core Practical III	Fundamentals of Food Engineering Practical	-	3	40	60	100	3
	Core Practical IV	Technology of Cereals, Pulses and Oilseeds Practical	4	3	40	60	100	3
	Allied II	Food Safety and Microbiology II	4	3	25	75	100	4
	Allied Practical II	Food Safety and Microbiology Practical I and II	3	3	40	60	100	2
IV	SBEC	Digital Skill for Employability – Office Fundamentals	2	2	25	75	100	2
IV	SBEC II	Food Additives	3	3	25	75	100	3
	NMEC II	Food Safety Initiatives	3	3	25	75	100	3
Total			30	29	295	705	100	31

Semester V								
Part	Course Type	Course Title	Hrs. /week	Examination				Credits
				Hrs.	CIA marks	ESE marks	Total marks	
III	Core V	Technology of Fruits, Vegetables and Plantation Crops	5	3	25	75	100	5
	Core VI	Technology of Sugar, Salt and Beverages	5	3	25	75	100	5
	Core Practical V	Technology of Fruits, Vegetables and Plantation Crops Practical	6	-	-	-	-	-
	Elective I	Food Quality Control	4	3	25	75	100	4
	Elective II	Food Storage and Packaging	4	3	25	75	100	4
IV	SBEC III Practical	Food Plant Layout	3	3	25	75	100	2
	SBEC IV Practical	Food Plant Hygiene and Sanitation	3	3	40	60	100	2
Total			30	18	165	435	600	23

Semester VI								
Part	Course Type	Course Title	Hrs. /week	Examination				Credits
				Hrs.	CIA marks	ESE marks	Total marks	
III	Core VII	Institutional Training	6	3	40	60	100	2
	Core VIII	Technology of Egg and Dairy	4	3	25	75	100	4
	Core IX	Technology of Fleshy	4	3	25	75	100	4

		Foods, Spices and Condiments						
	Core Practical V	Technology of Fruits, Vegetables and Plantation Crops Practical	-	3	40	60	100	3
	Core Practical VI	Technology of Egg, Dairy and Fleshy Foods Practical	6	3	40	60	100	3
	Elective III	Food Biotechnology	4	3	25	75	100	4
IV	SBEC V Practical	Food Quality Assurance	3	3	40	60	100	2
	SBEC VI Capstone Project	Food Entrepreneurship	3	3	40	60	100	2
	Add On Course	NMSDC Employability Readiness	-	-	-	-	-	-
V	Extension Activities	NSS/NCC/YRC/Extracurricular Activities						
	Total		30	24	275	525	800	24

OVERALL PROGRAMME GRADE AND CREDITS

Semester	Hrs./Week	Total Marks	Credits
Semester I	30	600	21
Semester II	30	800	28
Semester III	30	600	20
Semester IV	30	900	29
Semester V	30	600	23
Semester VI	30	800	24
Total	30	4300	145

Syllabus for B.Sc. Food Technology

SEMESTER I

Part III: CORE I – Fundamentals of Food Science and Chemistry

Course Name	Fundamentals of Food Science and Chemistry	Programme Name	B.Sc. Food Technology
Course Code	2022BFTC01	Academic Year Introduced	2022 - 23
Type of Course	Theory	Semester	I

COURSE OUTCOMES

On completion of the course, the students will be able to	
CO1	Define the chemical constituents and colloidal nature of food
CO2	Explain the nature of water and carbohydrates in food
CO3	Enshrine the scientific principles of food proteins and lipids
CO4	Appraise the nature of vitamins and pseudo vitamins in food
CO5	Enumerate the chemistry and types of macro and micro minerals in food

COURSE OBJECTIVES AND HOURS OF INSTRUCTION

Unit/Module	Objectives	Hours of Instruction TL+A+As=To
Colloidal Nature of Food	To impart learning on types and application of colloidal system and methods of cooking	12+3+2 = 17
Water and Carbohydrates	To illustrate the types and chemical nature of water and carbohydrates in food	12+3+2 = 17
Proteins and Lipids	To differentiate the chemical nature and types of proteins and lipids in food	13+4+2 = 19
Vitamins and Pseudo Vitamins	To picturize the chemistry and retention of vitamins and minerals in food	14+3+2 = 19
Minerals and Phytonutrients	To exhibit the types, nature and role of functional components (colours/pigments, flavours, enzymes and phytochemicals) in food	13+3+2 = 18
Total Hours of Instruction		90 (18x5)

TL-Teaching and Learning, A-Activities, As-Assessment, To-Total Hours

COURSE PLAN

Unit/Module	Intended Learning Chapters	CO(s) Mapped
I	a. Concept of food and nutrients b. Colloidal System in foods- <i>Types & Properties, Sols, Gels, Emulsion and Foams – nature and factors influencing its formation and stability, application of colloidal chemistry to food preparation</i> c. Cooking of food - <i>cooking methods and principles and effect of cooking on constituents of food</i>	CO1
II	a. Water – <i>chemistry, physical properties, free, bound and entrapped water, water activity in food, moisture sorption isotherm of a food, water quality for food processing- drinking water, mineral water and potable water</i> b. Carbohydrates – <i>types of carbohydrates in food, chemical structure, physio-chemical and functional properties, types of starch, resistant starch; role of food carbohydrate/starch in cookery</i>	CO2
III	a. Proteins – <i>classification/types, chemistry and nature of proteins in food, physio-chemical and functional properties of food proteins, role of food proteins in cookery</i> b. Lipids – <i>classification/types of lipids, types of fats and oils in food, chemistry and nature of fats and oils in food, physio-chemical and functional properties of fats and oils in food, role of fats and oils in cookery</i>	CO3
IV	a. Vitamins - <i>classification/types, chemistry and nature of vitamins in food, physio-chemical and functional properties of vitamins in food, effect of cooking on vitamins, pseudo vitamins in food</i> b. Minerals - <i>classification/types, chemistry and nature of minerals in food, physio-chemical and functional properties of minerals in food, effect of cooking on minerals in food</i>	CO4
V	a. Colours/Pigments - <i>classification/types, chemistry and nature of colours/pigments in food, effect of cooking on colours/pigments in food</i> b. Flavours - <i>classification/types, chemistry and nature of flavours in food, effect of cooking on flavours in food</i>	CO5

	c. Enzymes - <i>classification/types, chemistry and nature of enzymes in food, effect of cooking on enzymes in food, enzymatic and non-enzymatic browning reaction in food</i>	
	d. Phytochemicals - <i>classification/types, chemistry and nature of phytochemicals in food, effect of cooking on phytochemicals in food</i>	

REFERENCES

TEXTBOOKS	
1	John M. deMan., John W. Finley., W. Jeffrey Hurst., Chang Yong Lee., (auth.) (2018), Principles of Food Chemistry, 4 th Ed., AN ASPEN Publications, Maryland, Springer
2	Fennema, Owen R. (1996), Food Chemistry, 3 rd Ed., Marcel Dekker, New York
3	Norman N. Potter and Joseph H. Hotchkiss, (1998), Food Science, 5 th Ed., Springer
4	H.-D. Belitz., W. Grosch., P. Schieberle., (2009), Food Chemistry, 4 th and revised Ed., Springer-Verlag Berlin Heidelberg
5	Jan Velisek, (2014), The Chemistry of Food, Wiley Blackwell
REFERENCE BOOKS	
1	Joseph J. Provost., Keri L. Colabroy., Brenda S. Kelly., Mark A. Wallert. (2016), The Science of Cooking: Understanding the Biology and Chemistry behind Food and Cooking, Wiley Blackwell
4	Peter Chi Keung Cheung & Bhavbhuti M. Mehta (eds.). (2015), Handbook of Food Chemistry, Springer Reference
5	B.Sunitha and R.Aruna, Food Chemistry of Macronutrients, Department of Food Chemistry and Nutrition Study Material, Acharya NG Ranga Agricultural University College of Food Science & Technology, Bapatla
6	Y. H. Hui and Associate Editors, (2006), Handbook of Food Science, Technology and Engineering, Vol.I to IV, Taylor and Francis (CRC)
JOURNALS AND DOCUMENTS	
1	Food Chemistry, Springer
2	Cereal Chemistry, Springer
3	The Journal of Food Science and Technology, Springer

Part III: CORE I PRACTICAL – Fundamentals of Food Science and Chemistry Practical

Course Name	Fundamentals of Food Science and Chemistry Practical	Programme Name	B.Sc. Food Technology
Course Code	2022BFTC01	Academic Year Introduced	2022 - 23
Type of Course	Theory	Semester	I

COURSE OUTCOMES

On completion of the course, the students will be able to	
CO1	Differentiate different types of solution and methods of cooking food
CO2	Analyse the role of water and carbohydrates in cooking and processing of food
CO3	Determine the type and role of protein and lipid in raw and cooked food
CO4	Evaluate the nature of vitamins and pseudo vitamins in raw and cooked food
CO5	Catalogue the chemistry and types of macro and micro minerals in raw and cooked food

COURSE OBJECTIVES AND HOURS OF INSTRUCTION

Unit/Module	Objectives	Hours of Instruction TL+A+As=To
Colloidal Nature of Food	To impart practical learning on types and application of colloidal system and methods of cooking	2+10+3 = 15
Water and Carbohydrates	To illustrate the role of water and carbohydrates in cooking and processing of food	2+10+3 = 15
Proteins and Lipids	To determine the chemical nature and role of proteins and lipids in cooked and processed food	2+22+6 = 30
Vitamins and Pseudo Vitamins	To study the types and level of retention of vitamins and minerals in food on cooking/processing	2+16+6 = 24
Minerals and Phytonutrients	To characterise the nature of functional components (colours/pigments, flavours, enzymes and phytochemicals) in food on cooking/ripening/processing	2+16+6 = 24
Total Hours of Instruction		108 (18x6)

TL-Teaching and Learning, A-Activities, As-Assessment, To-Total Hours

COURSE PLAN

Unit/Module	Intended Learning Exercises	CO(s) Mapped
I	1. Identify the type of colloidal solution and describe on it 2. Tabulate the SOP for different cooking methods by integrating nature of ingredients, technique and method	CO1
II	1. Differentiate the type of water as per quality parameter 2. Identify the type of starch and sugar through qualitative tests and microscopic examination in various food	CO2
III	1. Tabulate the name, type and biological value of protein in ten foods through evidence based database 2. Determine the protein content of food by micro kjeldahl method 3. Experiment the nature of protein denaturation on cooking and processing of milk and egg 4. Tabulate the name, type and nature of fatty acids in ten foods through evidence based database 5. Determine the total fat content of food using soxhlet apparatus 6. Determine the FFA, Iodine number and saponification value of fresh fats and oils and RUCO	CO3
IV	1. Tabulate the name, type and chemical nature of vitamins in ten foods through evidence based database 2. Determine the Beta Carotene and vitamin C content of the fresh and processed fruits and vegetables 3. Tabulate the name, type and chemical nature of minerals in ten foods through evidence based database 4. Determine the calcium and iron content of the fresh and processed fruits and vegetables	CO4
V	1. Demonstrate the effect of cooking on colours/pigments in food 2. Determine the sensory quality changes on cooking of food in terms of descriptive sensory profile 3. Determine the browning index of fruits and vegetables and define its nature of browning 4. Identify the presence or absence of phytochemicals in food on cooking/processing	CO5

REFERENCES

TEXTBOOKS	
1	Connie M. Weaver and James R. Daniel, (2003), The Food Chemistry Laboratory: A Manual for Experimental Foods, Dietetics, and Food Scientists, Second Edition (Contemporary Food Science), Second Edition, CRC Press.
2	Shalini Sehgal, (2016), A Laboratory Manual of Food Analysis, ikbooks.com.
3	Mohini Sethi and Eram S. Rao, (2020), e-book edition, Food Science: Experiments and Applications, CBS Publishers and Distributors Pvt. Ltd.
REFERENCE BOOKS	
1	Joseph J. Provost., Keri L. Colabroy., Brenda S. Kelly., Mark A. Wallert. (2016), The Science of Cooking: Understanding the Biology and Chemistry behind Food and Cooking, Wiley Blackwell.
2	M.S.Swaminathan, (1987), Food Science, Chemistry and Experimental Foods, Second edition, Bangalore Print. & Pub. Co., Bangalore.
3	Mississippi State University Extension, (2019), Revised by Courtney Crist, M. W. Schilling, Viodelda Jackson, and J.B. Williams, Experiments in Food Science Laboratory Manual.
JOURNALS AND DOCUMENTS	
1	Food Chemistry, Springer
2	Cereal Chemistry, Springer
3	The Journal of Food Science and Technology, Springer

Part IV: VALUE EDUCATION – Food Culture and Ethics in Literature

Course Name	Food Culture and Ethics in Literature	Programme Name	B.Sc. Food Technology
Course Code	2022BFTVE01	Academic Year Introduced	2022 - 23
Type of Course	Theory	Semester	I

COURSE OUTCOMES

On completion of the course, the students will be able to	
CO1	Differentiate different types of solution and methods of cooking food
CO2	Analyse the role of water and carbohydrates in cooking and processing of food
CO3	Determine the type and role of protein and lipid in raw and cooked food
CO4	Evaluate the nature of vitamins and pseudo vitamins in raw and cooked food
CO5	Catalogue the chemistry and types of macro and micro minerals in raw and cooked food

COURSE OBJECTIVES AND HOURS OF INSTRUCTION

Unit/Module	Objectives	Hours of Instruction TL+A+As=To
Food Culture	To illustrate the food culture described in English and Tamil literature	6+1+2 = 9
Concepts and Ideas of Food	To understand the concepts and ideas of food in English and Tamil literature	8+1+2 = 11
Food for Love and Thoughts	To comprehend the use of food for love, thought and soul in English and Tamil literature	1+1+1 = 3
Food Aesthetics and Practices	To study the value of food as medicine, healing process and practices dealt in English and Tamil literature	7+1+2 = 10
Meat Eating Perspectives	To define the meat eating perspectives depicted in English and Tamil literature	1+1+1 = 3
Total Hours of Instruction		36 (18x2)

TL-Teaching and Learning, A-Activities, As-Assessment, To-Total Hours

COURSE PLAN

Unit/Module	Intended Learning Modules	CO(s) Mapped
1	The Values of Food: Exploring the food as site of values in oral literature	CO1
2	Diet in Hinduism	CO2
3	Meat-eating in India: Whose food, whose politics, and whose rights?	CO5
4	Exploring Indian Culture through Food	CO1
5	Indian Food Ethos	CO4
6	Traditional Food Culture in the Indian Religion Report	CO1
7	Stories' Digest: Narrating Identities and Cultures through Food in Blogs, Cook-Books and Advertisements in India	CO1
8	Food, culture, and identity in multicultural societies: Insights from Singapore	CO1
9	The cultural uses of food in modern Tamil literature	CO1
10	Evolution of Indian cuisine: a socio-historical review	CO2
11	Food culture: meaning, relationships and importance	CO1
12	Indian food culture	CO1
13	Feeding Workers in Colonial India 1919–1947	CO4
14	Accio FOOD!: Food and Its Magical Properties in Cartoons and Fantasy Literature	CO2
15	Who Eats Whom?: Transcending the Real Purpose Behind Food Events in Children's Literature (If Any!) Through Nonsense Literature	CO4
16	Food, Love and the Self in Indian Women's Poetry in English	CO3
17	Food for Thought-Feeling: Studying Taste's Affective Function in Bulbul Sharma's The Anger of Aubergines	CO3
18	Hunger Games: Politics of the Ema Market, the Kitchen and Protest in Manipur	CO4
19	Food for Soul, "Soul" for Food: The Tale of Blacks Told Through Soul Food	CO3
20	Cultural Politics of Food A Study of Selected Indian Writings	CO4
21	Food as a concept of culture and Indian Code in Jhumpa Lahiri's writing	CO1
22	Traditional and ayurvedic foods of Indian origin	CO4
23	The Emergence of Food Ethics	CO4
24	Meat-Eating: Thiruvalluvar's Perspective	CO5
25	Food in Religious Texts	CO2
26	Food in Religious Texts as in the Literature of The Holy Bible	CO2
27	Food as an Example of Individuality in the Novel Chocolate by Joanne Harris	CO2
28	Relationship between Food and Medicine in Siddha Theraiyar's Epic (Tamil)	CO4
29	Meat-Eating in Sangam Age and Contemporary Food Politics (Tamil)	CO5
30	Imaginary Food Culture and Technology in KalingaththupparaNi	CO1
31	Social Stratification and Food Culture among Tamils A Historical Approach	CO1
32	Food Technology in Sangam Society	CO2
33	Food Varieties Indicated by Sangam Literature for Marutham	CO2
34	Concepts and Ideas of Food in Akanaanooru, of Sangam Literature	CO2
35	Food Tradition in the Rituals of Tamils of Sangam Literature	CO4
36	Food Symbolism in Siddha Poetry	CO2
37	Technical Terms for Grains and Food Technology in Dravidian Culture	CO2

38	Food in Relation to Culture in Mullai Land in Sangam Literature	CO1
39	Symbolism of Wine and Water in Salman Rushdie's The Enchantress of Florence	CO2
40	Role of Different Delicious Dishes in Tamil Culture and Heritage	CO4
41	Food Habits of Indians in Khushwant Singh's Novel Delhi	CO2
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