[LD 1013] **OCTOBER 2013** **Sub. Code: 1305**

M.Sc. CLINICAL NUTRITION DEGREE EXAMINATION

FIRST YEAR

PAPER V – PRINCIPLES OF FOOD SCIENCE

Q.P. Code: 281305

Time : Three Hours **Maximum : 100 marks**

Answer ALL questions

I. Elaborate on: **(2 x 20 = 40)**

1. Butter and cheese making process.
2. Extraction of fats and oils.

II. Write notes on: **(10 x 6 = 60)**

1. Decortication.
2. Factors affecting foam formation.
3. Methods of cooking meat.
4. Stages of sugar cookery.
5. Pigments in fruits.
6. Role of spices and condiments in cookery.
7. Types and preparation of soups.
8. Any 3 objective methods for food evaluation.
9. Principles of food preservation.
10. Nutrition Labeling and Claims.

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[LE 0414] **APRIL 2014** **Sub. Code: 1305**

M.Sc. CLINICAL NUTRITION DEGREE EXAMINATION

FIRST YEAR

PAPER V – PRINCIPLES OF FOOD SCIENCE

Q.P. Code: 281305

Time : Three Hours **Maximum : 100 marks**

Answer ALL questions

I. Elaborate on: **(2 x 20 = 40)**

1. Manufacture of chocolate and cocoa.
2. Role of ingredients in bread making.

II. Write notes on: **(10 x 6 = 60)**

1. Factors affecting acceptability of foods.
2. Pectin substances.
3. Types of emulsion.
4. Uses of Egg in cookery.
5. Crystallization of sugars and factors affecting it.
6. Hydrogenation and Winterisation.
7. Types of Tea.
8. Classification and functions of packaging.
9. Parboiling of rice.
10. Effect of cooking on pulses.

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[LF 1014] **OCTOBER 2014** **Sub. Code: 1305**

M.Sc. CLINICAL NUTRITION DEGREE EXAMINATION

FIRST YEAR

(2012-2014 Batch onwards)

PAPER V – PRINCIPLES OF FOOD SCIENCE

Q.P. Code: 281305

Time : Three Hours **Maximum : 100 marks**

Answer ALL questions

I. Elaborate on: **(2 x 20 = 40)**

1. Composition, physical properties of milk and cheese making.
2. Types of foam and factors affecting foam formation.

II. Write notes on: **(10 x 6 = 60)**

1. Nutrition labelling.
2. Rating tests in sensory evaluation.
3. Types and preparation of soups.
4. Role of spices in cookery.
5. Pigments in fruits and vegetables.
6. Methods of cooking meat.
7. Products of soyabean.
8. Factors affecting gelatinization.
9. Kinds and selection of fish.
10. Stages of sugar.

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[LH 0415] **OCTOBER 2015** **Sub. Code: 1305**

M.Sc., CLINICAL NUTRITION
(from 2012-2014 onwards)
FIRST YEAR
PAPER V – PRINCIPLES OF FOOD SCIENCE

Q.P. Code : 281305

Time : Three hours **Maximum : 100 marks**

I. Elaborate on : **(2 x 20 = 40)**

1. Composition, kinds and selection of fish.
2. Uses and medicinal value of spices and condiments.

II. Write notes on: **(10 x 6 = 60)**

1. Factors affecting acceptability of foods.
2. Nutritional labeling and claims.
3. Preservation of foods by dehydration.
4. Improving nutritive value of foods through germination and fermentation.
5. Types and preparation of tea.
6. Uses of fats and oils in cookery.
7. Factors affecting crystallization.
8. Methods of cooking meat.
9. Gluten formation and factors affecting it.
10. Changes during cooking of vegetables.

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[LJ 1016] OCTOBER 2016 **Sub. Code: 1305**

M.Sc. CLINICAL NUTRITION EXAMS
FIRST YEAR
PAPER V – PRINCIPLES OF FOOD SCIENCE

Q.P. Code : 281305

Time : Three hours **Maximum : 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Role of ingredients in bread making.
2. Properties, types and stages of sugar.

II. Write notes on: **(10 x 6 = 60)**

1. Any three methods of objective evaluation.
2. Preparation of mayonnaise.
3. Methods of cooking meat.
4. Selection of fish.
5. Types of foam.
6. Role of fats in cookery.
7. Use of spices and condiments in cookery.
8. Types and preparation of soups.
9. Major categories of food additives.
10. Preservation of food by dehydration.

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[LK 0517] MAY 2017 **Sub. Code: 1305**

M.Sc. CLINICAL NUTRITION EXAMS
FIRST YEAR
PAPER V – PRINCIPLES OF FOOD SCIENCE

Q.P. Code : 281305

Time : Three hours **Maximum : 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Butter and cheese making process.
2. Properties, types and stages of sugar.

II. Write notes on: **(10 x 6 = 60)**

1. Methods of cooking meat.
2. Factors affecting foam formation.
3. Any three objective methods for food evaluation.
4. Selection of fish.
5. Types and preparation of soups.
6. Principles of food preservation.
7. Uses of fat in cookery.
8. Medicinal uses of spices and condiments.
9. Major categories of food additives.
10. Browning reaction.

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[LL 1017] OCTOBER 2017 **Sub.Code :1305**

M.Sc. CLINICAL NUTRITION EXAMS
FIRST YEAR
PAPER-V PRINCIPLES OF FOOD SCIENCE

Q.P. Code: 281305

Time: Three hours **Maximum : 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Sources and uses of starch, gelatinization of flours. Gluten formation. Factors affecting it, retro gradation of starch.

2. Structure, texture, pigments and acids in vegetable and fruits and the changes that take place during cooking.

II. Write notes on: **(10 x 6 = 60)**

1. Principles of subjective evaluation.
2. Preparation of mayonnaise.
3. Leavening agents.
4. Germination and fermentation.
5. Factors affecting coagulation of egg protein.
6. Cuts of meat and constituents of meat.
7. Stages of sugar cookery.
8. Characteristics of fats and oils.
9. Classification of soups, preparation, types and uses.
10. Preservatives used in cookery.

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[LN 1018] OCTOBER 2018 **Sub.Code :1305**

M.Sc. CLINICAL NUTRITION EXAMS
FIRST YEAR
PAPER-V PRINCIPLES OF FOOD SCIENCE

Q.P. Code: 281305

Time: Three hours **Maximum : 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Classify beverages and explain the types of it.
2. Discuss the household and medicinal uses of spices.

II. Write notes on: **(10 x 6 = 60)**

1. Explain the rating tests in sensory evaluation of foods.
2. What is gelatinization and what are the factors affecting it?
3. What are the uses of nuts and oilseeds in cookery?
4. Write down the composition of milk.
5. Explain egg white foam formation and factors affecting it.
6. Discuss the methods of cooking meat
7. Explain hydrogenation and winterization.
8. Explain the preservation of foods by low temperature.
9. What are the functions of packaging foods?
10. Explain Browning reaction.

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[LP 1019] OCTOBER 2019 **Sub.Code :1305**

M.Sc. CLINICAL NUTRITION EXAMS
FIRST YEAR
PAPER-V PRINCIPLES OF FOOD SCIENCE

Q.P. Code: 281305

Time: Three hours **Maximum : 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Explain the manufacture of cheese making.
2. Elaborate on methods of food preservation.

II. Write notes on: **(10 x 6 = 60)**

1. What are the factors affecting the acceptability of foods?
2. What are quick breads?
3. Explain decortication and germination.
4. Explain the structure of egg.
5. How do you select fish?
6. Discuss the characteristics of fats and oils.
7. What are the different types of tea?
8. Define additives and explain the need for food additives.
9. Write a note on nutrition labeling and claims.
10. What are the factors affecting crystallization?

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0321] **MARCH 2021** **Sub. Code: 1305**

(OCTOBER 2020 EXAM SESSION)

M.Sc. CLINICAL NUTRITION

FIRST YEAR (From 2012-2014 onwards)

PAPER V – PRINCIPLES OF FOOD SCIENCE

Q.P. Code : 281305

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. a) Explain Rancidity of fats
   b)Explain Maillard reaction
   c) Write a short note on Caramelisation
2. a) Food Preservation Techniques
   b) Antioxidants – Preventing the Deteriorative Changes in Fats and Oils

II. Write notes on: **(10 x 6 = 60)**

1. What is autoxidation and mention the three steps involved in it?
2. Explain Sensory evaluation of foods.
3. Classification of Colloidal System
4. Classification of carbohydrates
5. What are the changes that occur during: Storage of bread & sprouting of legumes
6. Elaborate on WPC
7. What are the factors affecting the acceptability of foods?
8. Classification of Proteins
9. Deteriorative changes in fats and oils
10. Alterations Occurring in Egg

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0921] **SEPTEMBER 2021** **Sub. Code: 1305**
(MAY 2021 EXAM SESSION)

M.Sc. CLINICAL NUTRITION
FIRST YEAR (From 2012-2014 onwards)
PAPER V – PRINCIPLES OF FOOD SCIENCE
Q.P. Code : 281305

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Chemical, physical and nutritional alterations occurring in foods during processing and storage.
2. Traditional Methods of Food Processing.

II. Write notes on: **(10 x 6 = 60)**

1. Explain Maillard reaction.
2. Factors affecting Deep Fat Frying.
3. Explain caramelisation of sugars.
4. What are the factors affecting the acceptability of foods?
5. What is rancidity? Mention the compounds responsible for it.
6. Browning Reaction.
7. Classification of Colloidal System.
8. End products on hydrolysis of Carbohydrates.
9. Methods of foods preservation.
10. Functional Foods.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0222] **FEBRUARY 2022** **Sub. Code: 1305**
(OCTOBER 2021 EXAM SESSION)

M.Sc. CLINICAL NUTRITION
FIRST YEAR
(Candidates admitted from 2012-2014 onwards - Paper V)
(Candidates admitted from 2020-2021 onwards - Paper VI)
PAPER V & VI – PRINCIPLES OF FOOD SCIENCE
Q.P. Code : 281305

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Methods of foods preservation.
2. a) Classification of carbohydrates and end products on hydrolysis
   b) Explain Maillard reaction

II. Write notes on: **(10 x 6 = 60)**

1. Explain the Hedonic Scale rating tests in sensory evaluation of foods.
2. Write short note on gelatinization of starch
3. Explain- Functional Properties of Whey Protein Concentrates
4. Explain caramelisation of sugars
5. What are the factors affecting the acceptability of foods?
6. Explain the structure of egg or Classification of Colloidal System
7. Criteria for selection of fresh fish
8. Elaborate on artificial Sweeteners
9. Use of Salt, Sugar and Chemicals as Preservatives
10. Factors affecting Deep Fat Frying

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THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[AHS 0522] **MAY 2022** **Sub. Code: 1305**

M.Sc. (CLINICAL NUTRITION) DEGREE EXAMINATION
First Year
Paper V Principles of Food Science

Q.P. Code: 281305

Time : Three Hours **Maximum : 100 Marks**

Answer ALL questions

I. Elaborate on: **(2 × 20 = 40)**

1. Structure, composition of eggs and coagulation of egg protein.

2. Household and medicinal value of Indian spices.

II. Write Notes On: **(10 × 6 = 60)**

1. Adams consistometer and Bostwick consistometer.
2. Classification and function of beverages.
3. Rancidity.
4. Freezing methods in preservation of foods.
5. Enzymatic browning and its prevention.
6. Composition of milk.
7. Straight dough method and sponge method.
8. Processing of pulses.
9. Classification of poultry and cooking methods.
10. Crystalline and non-crystalline candies.

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