

(6 pages)

Reg. No. :

Code No. : 30586 E Sub. Code : CMFN 11

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

First Semester

Food Science and Nutrition – Core

FOOD SCIENCE

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. A food that has extra nutrients added to it during processing to increase its nutritional value is called as _____.
(a) food preservation (b) food additives
(c) foods fortification (d) processed foods
2. _____ are used to prevent oxidation of fats by molecular oxygen and avoid rancidity.
(a) Nutrients (b) Antioxidants
(c) Chemical (d) Toxicants

3. Cooking of food in a slightly greased pan is _____.
- (a) sauteing (b) grilling
- (c) broiling (d) roasting
4. _____ is the practice of adding micronutrients back to a food product that were lost during processing.
- (a) Supplementation (b) Food additives
- (c) Weaning foods (d) Food enrichment
5. Which of the following has excellent oxidative stability?
- (a) Sunflower oil (b) Palm oil
- (c) Coconut oil (d) Peanut oil
6. Parboiled rice is a good source of _____.
- (a) vitamin A (b) vitamin E
- (c) vitamin C (d) vitamin B

7. Pectin is present in _____.
- (a) raw fruits (b) optimum ripen fruit
(c) ripen fruit (d) slightly ripen fruit
8. Anthocyanins are responsible for _____
colour of fruits and vegetables.
- (a) white (b) purple
(c) yellow (d) pink
9. Distribution of fat in the meat is called _____
- (a) marbling (b) emulsion
(c) dispersion (d) tenderization
10. A fish should be selected based on _____.
- (a) brightness of skin (b) sunken eyes
(c) dullness of gills (d) hard texture

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Discuss the need for grouping foods.
- Or
- (b) Give a brief note on food fortification and food additives.

12. (a) Outline the preliminary techniques involved in cleaning and cutting of foods.

Or

- (b) Write the pros and cons of grilling and roasting methods of cooking.

13. (a) Discuss the parboiling process of rice in short.

Or

- (b) Enumerate the process involved in germination of pulses.

14. (a) Highlight the process occur during ripening of fruits.

Or

- (b) Classify beverages. Write its role in the diet.

15. (a) Discuss the nutritive value of poultry in brief.

Or

- (b) Write the best methods for cooking of fish.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Describe the basic five food groups. Write why it is important to include in our daily diet.

Or

- (b) Categorize the food based on its nutrients.

17. (a) Enumerate the factors that influence the nutritive value of foods during cooking.

Or

- (b) How can fermentation and supplementation improve the nutritional quality of foods?

18. (a) Enumerate the structure of wheat.

Or

- (b) Discuss the nutritive value of nuts and oil seeds. Write its importance in the diet.

19. (a) Classify vegetables according to structure. Write its selection process.

Or

- (b) Explain the nutritive value of fruits.

20. (a) Enlist and elaborate milk products in cookery.

Or

(b) Find the factors that affect the quality of egg.

(6 pages)

Reg. No. :

Code No. : 30588 E Sub. Code : CMFN 31

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

Third Semester

Food Science and Nutrition — Core

ESSENTIALS OF MACRO NUTRIENTS

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Proteins are converted to _____ during digestion.
(a) fatty acids (b) amino acids
(c) glycerol (d) glucose
2. Intake of nutrients above normal leads to _____
(a) malnutrition (b) undernutrition
(c) overnutrition (d) none of the above

3. The Tricarboxylic acid cycle is also known as _____
- (a) Glycolysis (b) Kreb's cycle
(c) Gluconeogenesis (d) Urea cycle
4. Synthesis of glucose from non carbohydrate compound is known as _____
- (a) Glycolysis (b) Kreb's cycle
(c) Gluconeogenesis (d) Urea cycle
5. 1g of protein supplies _____ k.calories.
- (a) 3 (b) 4
(c) 5 (d) 6
6. Pot belly is a symptom of _____
- (a) Marasmus (b) Kwashiorkor
(c) Pellagra (d) Rickets
7. Fat contains fatty acid is _____
- (a) glucose (b) glycogen
(c) glycerol (d) aminoacids
8. Fatty acid is synthesized from _____
- (a) glycerol P_{α_4} (b) glycerol
(c) acetyl CoA (d) Succinyl CoA

9. Determination of energy is measure by using

- (a) Oxy caloric meter
- (b) Bomb caloric meter
- (c) Human respire meter
- (d) Direct caloric meter

10. Presence of fever increased BMR to _____

- (a) 5%
- (b) 7%
- (c) 8%
- (d) 9%

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Highlight the digestion of carbohydrate.

Or

(b) How fat is absorbed?

12. (a) Classify carbohydrates with examples.

Or

(b) Define dietary fiber and write the functions.

13. (a) Enumerate the functions of proteins.

Or

(b) Analyse the symptoms of protein deficiency.

14. (a) State the functions of fats.

Or

(b) Differentiate the consequences of inadequate and excessive intake of fat.

15. (a) Define BMR and elicit the factors affecting BMR.

Or

(b) Discuss on direct calorimeter methods.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Describe the relation of good nutrition to sound health.

Or

- (b) Outline the digestion and absorption of proteins.

17. (a) Carbohydrates are important for health - justify the statement.

Or

- (b) Comment on it - glucose is basic energy source of our body.

18. (a) Classify proteins and amino acids with suitable examples.

Or

- (b) "Proteins are poor man's meat" - Justify and list out the protein sources.

19. (a) Describe the digestion and absorption of lipids in detail.

Or

- (b) Describe the classifications and functions of fats.

20. (a) Calculate the energy output of food by using bomb calorimeter.

Or

(b) Focus on indirect calorimetric methods.

(6 pages)

Reg. No. :

Code No. : 30589 E Sub. Code : CAFN 11

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

First Semester

Food Science and Nutrition – Allied

HUMAN PHYSIOLOGY

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The control centre for the regulation of the body's temperature is located in the
 - (a) skin
 - (b) hypothalamus
 - (c) medulla oblongata
 - (d) thalamus

2. Which of the following is connective tissue?
- (a) Ligament (b) Tendon
(c) Blood (d) All of the above
3. _____ are functional units of food absorption.
- (a) Small intestine
(b) Red blood cells
(c) aggregated lymphoid nodules
(d) villi
4. Fat digestion occurs in _____.
- (a) stomach (b) small intestine
(c) duodenum (d) mouth
5. Which is the largest blood vessel in the human body?
- (a) Pulmonary vein (b) Aorta
(c) Capillaries (d) Arteries
6. The time taken for one beat of heart is _____ second.
- (a) 0.6 (b) 0.8
(c) 1 (d) 0.5

7. Which of the following are parts of the human respiratory system?
- (a) Trachea (b) Diaphragm
(c) The lungs (d) All of the above
8. The number of lobes in both right and left lungs are respectively
- (a) three, two
(b) two, three
(c) two, one
(d) three, three
9. _____ is fundamental unit of the nervous system.
- (a) neuron (b) nephron
(c) axon (d) neuroglia
10. Find the sequence of formation of urine.
- (a) secretion, reabsorption, filtration
(b) reabsorption, secretion, filtration
(c) filtration, reabsorption, secretion
(d) secretion, filtration, reabsorption

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Illustrate the structure of the skin.
Or
(b) Identify the functions of skin.
12. (a) Trace the functions of small intestine and large intestine.
Or
(b) Find the components involved in reproduction of human being.
13. (a) Determine the functions of heart.
Or
(b) Write the types of WBC.
14. (a) Outline the mechanism of respiration.
Or
(b) Illustrate on the structure of lungs.
15. (a) Find out three functions of kidney.
Or
(b) Differentiate between sympathetic and parasympathetic nervous system.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the functions of connective and nervous tissues.

Or

- (b) Illustrate the various types of Connective tissues.

17. (a) Describe the different parts of the digestive system. Give their functions.

Or

- (b) Identify the different phases of menstrual cycle.

18. (a) Illustrate the structure of human heart.

Or

- (b) Identify the various factors involved in coagulation of blood.

19. (a) Find the various components which regulate human respiration.

Or

- (b) How are oxygen and carbon dioxide transported in human beings?

20. (a) Illustrate the structure of brain in human body.

Or

(b) Illustrate the structure of kidney and name its parts.

(6 pages)

Reg. No. :

Code No. : 30591 E Sub. Code : CA 7 N 31

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

Third Semester

Food Science and Nutrition – Allied

FAMILY RESOURCE MANAGEMENT – I

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The type of soil should be determined in order to avoid
 - (a) good garden soil
 - (b) cost problems
 - (c) good house
 - (d) none of the above

2. _____ is setting the house plan to enjoy the utmost beauty of nature.
- (a) Orientation (b) Grouping
(c) Aspect (d) Prospect
3. Weevils cause damage to
- (a) Books (b) Grains
(c) Clothes (d) Wood
4. Periodical cleaning is also known as _____ cleaning.
- (a) Daily (b) Weekly
(c) Seasonal (d) None
5. _____ lines give feminine effect.
- (a) Vertical
(b) Horizontal
(c) Diagonal
(d) Curve lines
6. Any material which reveals a textural pattern when observed without touching is called _____.
- (a) Actual texture (b) Smooth texture
(c) Both (a) and (b) (d) Visual texture

7. _____ principle is known as the law of relationship.
- (a) Proportion (b) Emphasis
- (c) Rhythm (d) Balance
8. The qualities which indicates the name of the colours
- (a) Intensity
- (b) Value
- (c) Hue
- (d) None of these
9. A room without _____ will be an interesting.
- (a) Furniture (b) Furnishing
- (c) Wardrobe (d) Paint
10. Formal balance of flower arrangement tends to appear
- (a) stilled (b) monotonous
- (c) dull (d) gracefull

PART B — (5 × 5 = 25 marks)

Answer ALL questions by choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) What are the practical conveniences a family must consider before deciding the location of the house?

Or

- (b) Brief on the sources of artificial lighting.

12. (a) Outline the general principles to be followed in cleaning.

Or

- (b) Name some insects which damage food material. Suggest measures to get rid of the problem.

13. (a) Highlight the points on harmony of idea.

Or

- (b) Write short notes on Greek oblong.

14. (a) Illustrate on the classification of colours.

Or

- (b) Discuss about Analogous color in brief.

15. (a) Brief on dining room furnitures.

Or

(b) What are the points to be remembered while selecting pictures for all rooms?

PART C — (5 × 8 = 40 marks)

Answer ALL questions by choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain about selection of site.

Or

(b) Describe about the different methods to lighting.

17. (a) Express the process of house cleaning in detail.

Or

(b) Explain about common household pests.

18. (a) Illustrate on texture in detail.

Or

(b) Elucidate on rhythm and its types.

19. (a) Interpret on color harmony.

Or

(b) Explain on warm and cool hues and give suggestions where to use.

20. (a) Discuss on the points to be kept in mind while selecting furniture.

Or

(b) Explain on types of flower arrangement and the materials used.

(6 pages)

Reg. No. :

Code No. : 30592 E Sub. Code : CSFN 31

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

Third Semester

Food Science and Nutrition

Skill Based Subject — FOOD PROCESSING AND
PRESERVATION

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which of the following is NOT an advantage of dehydration under controlled conditions over sun drying?
 - (a) Cost
 - (b) Time of drying
 - (c) Quality of drying
 - (d) None of the mentioned

2. _____ is one of the newest methods of heating food.
- (a) Ohmic heating (b) Pasteurization
(c) Sterilization (d) Cabinet drying
3. The temperature used for slow freezing is _____
- (a) -4 to -29°C (b) -32 to -40°C
(c) -1 to 30°C (d) -2 to 40°C
4. The sealed can is heat processed in the temperature of _____
- (a) 121.1°C (b) 100°C
(c) 78.2°C (d) 90°C
5. Jelly is prepared by using _____
- (a) fruit pulp (b) fruit extract
(c) milk (d) egg
6. _____% of TSS is present in sweetened fruit juice.
- (a) 10 (b) 15
(c) 20 (d) 25

7. Which of these radiation is recommended for food sterilization?
- (a) X rays (b) Beta radiation
(c) UV rays (d) Gamma radiation
8. Cold sterilization is also called as
- (a) Freezing (b) Chilling
(c) Vacuum cooling (d) Irradiation
9. How many general categories of food additives?
- (a) 2 (b) 3
(c) 4 (d) 5
10. A substance intentionally added that preserves flavor and improves taste is called?
- (a) food material (b) food contaminant
(c) food adulterant (d) food additive

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

11. (a) State the advantages of food preservation.

Or

- (b) Describe the advantages of blanching.

12. (a) Explain any three freezing methods.

Or

(b) Write the advantages and disadvantages of sun drying.

13. (a) Write the procedure for preparing grape synthetic syrup.

Or

(b) Explain the process involved in crush preparation.

14. (a) Explain the permissible limits of class II preservatives in food products.

Or

(b) What are the sources of ionizing radiations?

15. (a) Write the classifications of food additives.

Or

(b) Focus the functions of food additives.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Describe the different methods of food preservation at household level.

Or

- (b) Explain the principles of food preservation.

17. (a) Write the differences between sun drying and dehydration.

Or

- (b) Describe the techniques involved in low temperature.

18. (a) Elucidate the methods of pickle making.

Or

- (b) Describe the procedure involved in jelly making.

19. (a) Write a three types of ionizing radiations.

Or

- (b) Describe the chemical preservatives used in preserving foods.

20. (a) Find the advantages and disadvantages of additives in food.

Or

(b) Explain on Bleaching and Maturing Agents.

(6 pages)

Reg. No. :

Code No. : 30593 E Sub. Code : CNFN 31

U.G. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

Third Semester

Food Science and Nutrition – Non Major Elective

FOOD PRESERVATION TECHNISQUES

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which of the following are not examples of food preservation techniques
 - (a) Adding sugar, dehydrating and pickling
 - (b) Freezing, adding lactic acid and dehydrating
 - (c) Adding salt, canning and vacuum sealing
 - (d) Baking, frying and boiling

2. Preservation of food means
 - (a) To keep food safe
 - (b) To retain quality of food
 - (c) To prevent decomposition of food
 - (d) All the above

3. How does dehydration work to preserve food?
 - (a) Provides on acidic environment
 - (b) Removes oxygen exposure
 - (c) Removes water content
 - (d) Removes water content by freezing water particles

4. How does freezing foods affect bacterial growth?
 - (a) Kills bacteria
 - (b) Allows bacteria to grow rapidly
 - (c) Stops or slows down bacteria
 - (d) All the above

5. Amount of juice present in squash is
 - (a) 20%
 - (b) 25%
 - (c) 30%
 - (d) 40%

6. _____ is a preservative used to preserve fruit juice
- (a) Sulphur dioxide
 - (b) Benzoic acid
 - (c) Citric acid
 - (d) KMS
7. The FPO specification of TSS for jam is
- (a) 68.5% (b) 67.5%
 - (c) 68.6% (d) 70.5%
8. _____ is rich in pectin content
- (a) Orange (b) Mango
 - (c) Banana (d) Guava
9. The preservation of food in common salt or in vinegar is known as
- (a) Pickling (b) Jam
 - (c) Jelly (d) Squash
10. _____ reduces the sourness of acids and in eases the sweetness of sugar.
- (a) Salt (b) Sugar
 - (c) Acid (d) Oil

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Identify the importance of food preservation.

Or

- (b) Examine the need for food preservation.

12. (a) Illustrate the difference between drying and dehydration processes.

Or

- (b) Give a brief note on low temperature food preservation methods.

13. (a) Mark the uses of chemical preservatives.

Or

- (b) How do you prepare pineapple squash?

14. (a) How do you determine the pectin content in jelly?

Or

- (b) Write the principles involved in jelly making.

15. (a) Analyze the principles of preservation by salt.

Or

(b) Discuss the uses of salt in pickling.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Explain the principles of food preservation.

Or

(b) Elaborate on different preservation methods.

17. (a) Discuss the process of drying in detail.

Or

(b) Describe the methods of pasteurization.

18. (a) Describe the process of orange synthetic syrup making.

Or

(b) Enumerate the advantages and disadvantages of using chemicals to preserve foods.

19. (a) Describe the procedure involved in jelly making.

Or

(b) Describe the processes involved in making marmalade.

20. (a) Assess the methods of pickling.

Or

(b) Bring out the problems encountered while preparing pickles in detail.

(6 pages)

Reg. No. :

Code No. : 30594 E Sub. Code : CNFN 32

U.G. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2022.

Third Semester

Food Science and Nutrition

Non Major Elective — DIET THERAPY - I

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Requirement of iron during pregnancy is _____
(a) 30g (b) 38g
(c) 42g (d) 50g

2. _____ hormone is needed for production of milk
(a) Oxytocin (b) ADH
(c) TSH (d) Prolactin

3. Weight of an infant is increased to double within -- _____ months.
(a) 3 (b) 6
(c) 9 (d) 12

4. Yellowish fluid secreted immediately after child birth is called _____
(a) Cholesterol (b) Milk
(c) Cholestrum (d) None of the above

5. _____ is a nutritional problem during adolescence.
(a) PEM (b) Anaemia
(c) Bulimia (d) Vit.A deficiency

6. _____ may occur during old-age due to calcium deficiency.
(a) Pellagra (b) Osteoporosis
(c) beriberi (d) PEM

7. These are nutrients that are required in small amounts.
(a) Micronutrients
(b) Macronutrients
(c) Fat soluble
(d) Water soluble

8. Soft food includes
- (a) Porridge
 - (b) Mashed carrot
 - (c) Grated carrot
 - (d) Chappathi
9. Muscle wasting occurs in
- (a) Scurvy
 - (b) Rickets
 - (c) PEM
 - (d) Anemia
10. Bitot's spot is the deficiency symptom of _____
- (a) Calcium
 - (b) Vitamin A
 - (c) Iron
 - (d) Vitamin K

PART B — (5 × 5 = 25 marks)

Answer ALL questions, by choosing either (a) or (b).
Each answer should not exceed 250 words.

11. (a) Analyze the principles of menu planning.
- Or
- (b) Give a brief detail on complication of pregnancy.

12. (a) Outline the growth and development during infancy.

Or

(b) Discuss on the nutritional problems of preschoolers.

13. (a) Elicit on the nutritional problems during adolescence period.

Or

(b) Analyze the dietary guidelines of aged person and comment on it.

14. (a) How will you modify diet for a sick person?

Or

(b) Comment on preoperative diets.

15. (a) "PEM" is commonly prevalent in preschool children - comment the statement.

Or

(b) Write the causes and symptoms of Vitamin 'A' deficiency.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, by choosing either (a) or (b)
Each answer should not exceed 600 words.

16. (a) Elaborate the nutritional requirements and role of hormones during lactation.

Or

- (b) Plan menu for an anemic pregnant mother and comment on the selection of foods.

17. (a) Differentiate breast feeding and artificial feeding and discuss its merits and demerits.

Or

- (b) Elaborate on packed lunch and its principle.

18. (a) Outline nutritional and dietary modifications during a adolescent periods.

Or

- (b) Enumerate on nutritional related problems during old age.

19. (a) Give a detailed note on principles of therapeutic diets.

Or

- (b) “Tube feeding is important after surgery” - Comment on this statement.

20. (a) Elaborate on causes, symptoms and preventive measures of anemia.

Or

(b) Differentiate Kwashiorkor and Marasmus and write the sources of protein and carbohydrates.
