

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

[AHS 0222]

**FEBRUARY 2022
(OCTOBER 2021 EXAM SESSION)**

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION
FIRST YEAR
(Candidates admitted from 2012-2014 onwards - Paper IV)
(Candidates admitted from 2020-2021 onwards - Paper V)
PAPER IV & V – ADVANCE NUTRITION
Q.P. Code : 281304**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define BMR Factors affecting BMR.
2. Explain Metabolic Utilization and regulation of carbohydrates.

II. Write notes on:

(10 x 6 = 60)

1. Factors affecting thermic effects of food.
2. Discuss fatty acid briefly.
3. Explain Energy requirement during Pregnancy and Lactation.
4. Write about properties and effects of Dietary fiber.
5. Methods of determination of protein and amino acid content in food.
6. Write about n-3 and n-6 fatty acid in relation to Indian diets.
7. Functions of water in the body.
8. Explain Beriberi in detail.
9. Functions of Calcium.
10. Lipoproteins.

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

[AHS 1022]

OCTOBER 2022

Sub. Code: 1304

M.Sc. CLINICAL NUTRITION

FIRST YEAR

(Candidates admitted from 2012-2013 onwards - Paper - IV)

(Candidates admitted from 2020-2021 onwards - Paper - V)

PAPER IV & V – ADVANCE NUTRITION

Q.P. Code : 281304

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Write about macro-nutrients, its significant and recommendations.
2. What is BMR? Factors affecting BMR.

II. Write notes on:

(10 x 6 = 60)

1. Explain functions and bio availability of vitamin C.
2. Write on the digestion and absorption of carbohydrates.
3. What are the functions of fat in human body?
4. Differentiate pre-biotics and pro-biotics.
5. Write on hypervitaminosis.
6. Water plays several roles in our life style processes. Justify the statement giving the functions of water.
7. Write on n-3 and n-6 fatty acids.
8. Write on anaemia and dietary management.
9. Write on nutrient-nutrient interaction.
10. Explain on phytates and protease inhibitors.

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

[AHS 1023]

OCTOBER 2023

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION
FIRST YEAR (From 2020-2021 onwards)
PAPER V – ADVANCE NUTRITION**

Q.P. Code: 281304

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. a) Define Basal metabolic rate. What are the factors affecting Basal metabolic rate?
b) How Basal metabolic rates are estimated?
2. a) Digestion, absorption and transport of protein.
b) Explain in detail about various methods to improve quality of protein in the diet.

II. Write notes on:

(10 x 6 = 60)

1. Explain in detail about the consequences of excessive intake of fat and write about the health benefits of omega 3 fatty acids.
2. Explain in detail about Iodine deficiency disorder.
3. How B vitamins are linked with energy metabolism?
4. Explain the role of folate and Vitamin B12 in nutritional anemia.
5. Write short note on prebiotics and its health benefits.
6. Explain in detail about different types of resistant starch.
7. Explain the role of Vitamin D and calcium in bone health.
8. Write down the functions and deficiencies of electrolytes.
9. Explain the physiological role and deficiency of Iron.
10. Write short note on role of hormone in water balance.

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

[AHS 1024]

OCTOBER 2024

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION
FIRST YEAR (From 2020-2021 onwards)
PAPER V – ADVANCE NUTRITION**

Q.P. Code: 281304

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2x20=40)

1. Write in detail about functions, deficiency and food sources of vitamin A and also write about the effective measures to prevent vitamin A deficiency.
2. Discuss about water under the following headings:
a) Functions and Distributions b) Component of body fluids c) Water balance
d) Dehydrations and Oedema.

II. Write notes on:

(10x6=60)

1. What are Functional foods and write about its health benefits.
2. Explain about Malto Oligosaccharides and Fructo Oligosaccharides.
3. Write about complete and incomplete protein and list essential and non-essential amino acids.
4. Write short note on Lipoproteins.
5. What are the functions and deficiency of Biotin and Niacin?
6. Write short note on saponin and amylase inhibitors.
7. Explain the health benefits of prebiotics.
8. Explain in detail about different methods of estimating energy requirement.
9. Explain about Recommended Dietary Allowance (RDA). What are the factors to be considered while establishing RDA?
10. Explain the functions of copper and list foods rich in copper.

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

[AHS 1025]

OCTOBER 2025

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION
FIRST YEAR (From 2020-2021 onwards)
PAPER V – ADVANCE NUTRITION**

Q.P. Code: 281304

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2x20=40)

1. Write in detail about water soluble vitamins.
2. Define BMR and discuss in detail about factors affecting BMR.

II. Write notes on:

(10x6=60)

1. What are the resistance starch and explain the factors influencing resistance starch content of food?
2. Explain the function, deficiency and symptoms of vitamin D.
3. Explain the digestion and absorption of fats.
4. List out the function of folic acid.
5. What is glycemic index and factors affecting glycemic index?
6. Summarize the digestion and absorption of protein.
7. Explain the importance of polyunsaturated fatty acids in diets.
8. What is ADH and explain the role on ADH.
9. Write about protease inhibitors and saponins.
10. Water and electrolyte balance.
