

[LD 1013]

OCTOBER 2013

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION DEGREE EXAMINATION**

**FIRST YEAR**

**PAPER IV – ADVANCED NUTRITION**

***Q.P. Code: 281304***

**Time : Three Hours**

**Maximum : 100 marks**

**Answer ALL questions**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Briefly explain direct and indirect calorimetry?
2. Explain the classification, digestion absorption and transport of proteins?

**II. Write notes on:**

**(10 x 6 = 60)**

1. Define BMR? What are factors affecting the BMR?
2. How does the body maintain its blood glucose concentration?
3. Discuss the difference between omega 3 and omega 6 fatty acids?
4. Describe some general difference between fat soluble vitamins and water soluble vitamins?
5. What is vitamin K primary role in the body? What conditions may lead to vitamin K deficiency?
6. What is ADH? Explain the role of ADH?
7. List calcium roles in the body? How does the body keep blood calcium constant regardless of intake?
8. What are Probiotics? Discuss the health benefits of probiotics?
9. Explain the functions and deficiency of iron and iodine in the body?
10. What are the risks associated with niacin and vitamin B6?

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[LE 0414]

APRIL 2014

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION DEGREE EXAMINATION**

**FIRST YEAR**

**PAPER IV – ADVANCED NUTRITION**

***Q.P. Code: 281304***

**Time : Three Hours**

**Maximum : 100 marks**

**Answer ALL questions**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Explain in detail on probiotics, prebiotics, polyphenols and functional foods?
2. Discuss briefly on the classification, absorption, digestion and metabolic utilization of carbohydrates?

**II. Write notes on:**

**(10 x 6 = 60)**

1. What is thermic effect of food and factors affecting the thermic effect of food?
2. What are resistant starch and explain the factors influencing Resistant Starch content of food?
3. Summarize the digestion and absorption of proteins?
4. List the roles of phosphorus in the body? Discuss the relation of calcium and phosphorus.
5. Describe the similarities and differences in the absorption of iron and zinc?
6. Explain the functions of vitamin D? What are the chief symptoms of vitamin D deficiency?
7. What are the risk factors associated and functions with thiamin and riboflavin?
8. How do the four lipoproteins differ in function from another in the body?
9. Explain the importance of unsaturated fatty acids in our diets?
10. Discuss on water balance and water regulation in the body?

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[LF 1014]

OCTOBER 2014

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION DEGREE EXAMINATION**

**FIRST YEAR**

**(2012-2014 Batch onwards)**

**PAPER IV – ADVANCED NUTRITION**

***Q.P. Code: 281304***

**Time : Three Hours**

**Maximum : 100 marks**

**Answer ALL questions**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Elaborate on the classification, digestion, absorption and the dietary sources carbohydrates.
2. Elaborate on Polyphenols.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Explain the health benefits of fibre.
2. Explain on Heart Monitoring Rate and Double Labeled water.
3. Explain on the digestion and absorption of fats.
4. Explain on the functions of water and electrolytes.
5. Differentiate between Kwashiorkor and Marasmus.
6. Explain the deficiency diseases of thiamin and niacin.
7. Explain the functions of vitamin E and vitamin K and their dietary sources.
8. Explain on goiter and nutritional anemia.
9. Explain the regulation of blood calcium concentration in the body.
10. Explain on the dietary factors with anti nutritional effects.

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[LH 0415]

OCTOBER 2015

Sub. Code: 1304

**M.Sc., CLINICAL NUTRITION**  
**(from 2012-2014 onwards)**  
**FIRST YEAR**  
**PAPER IV – ADVANCE NUTRITION**

*Q.P. Code : 281304*

**Time : Three hours**

**Maximum : 100 marks**

**I. Elaborate on :**

**(2 x 20 = 40)**

1. Water-soluble vitamins?
2. Components of total energy expenditure?

**II. Write notes on:**

**(10 x 6 = 60)**

1. Components of dietary fiber
2. Methods of determination of proteins?
3. Choice of cooking medium in the context of n-3 and n-6 Fatty acid ratio in Indian Diets?
4. Functions of water and compartments of body water?
5. Synthesis of Vitamin D from its provitamin and its deficiency
6. Absorption and factors affecting the absorption of Iron
7. Functions and sources of magnesium and phosphorus?
8. Probiotics and the health benefits of probiotics?
9. Phytoestrogens, its classes and give examples?
10. Protease inhibitors and Saponins?

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[LJ 1016]

OCTOBER 2016

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION EXAMS  
FIRST YEAR  
PAPER IV – ADVANCE NUTRITION**

***Q.P. Code : 281304***

**Time : Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Fat Soluble Vitamins.
2. Components of total energy expenditure.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Resistant starch.
2. Digestion and absorption of proteins.
3. Classification of fatty acids.
4. Functions and deficiency of Vitamin C.
5. Thiamine deficiency.
6. Function and RDA of iron.
7. Polyphenols.
8. Water and electrolyte balance.
9. Saponins.
10. Functions of water and electrolytes.

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[LK 0517]

MAY 2017

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION EXAMS  
FIRST YEAR  
PAPER IV – ADVANCE NUTRITION**

***Q.P. Code : 281304***

**Time : Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Discuss water soluble vitamins in detail.
2. Define BMR and discuss the factors affecting BMR in detail.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Functions and deficiency of iron in the body.
2. Factors affecting total energy expenditure.
3. Distribution of water and functions of water.
4. Deficiency of proteins.
5. Digestion and absorption of fats.
6. Rickets.
7. Saponins.
8. Functions and sources of calcium.
9. Lipoproteins.
10. Glycemic index.

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[LL 1017]

OCTOBER 2017

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION EXAMS  
FIRST YEAR  
PAPER IV – ADVANCE NUTRITION**

***Q.P. Code : 281304***

**Time : Three hours**

**Maximum : 100 Marks**

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

1. Discuss in detail the health benefits of probiotics and prebiotics.
2. Explain briefly on definition, classification and health benefits of resistant starch and fiber.

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

1. What is BMR? Factors affecting BMR.
2. Give the clinical and biochemical features of Kwashiorkor and Marasmus.
3. Explain the functions of lipids and the role of lipoproteins in the body.
4. Deficiency of vitamin A and its nutritional management.
5. List out the functions and deficiency of folic acid.
6. Explain on water and electrolyte balance.
7. Explain the various factors influencing the calcium absorption.
8. Write about the health benefits of polyphenols.
9. Explain in detail on pyridoxine and cyanocobalamin.
10. Write about the functions of zinc and selenium.

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[LN 1018]

OCTOBER 2018

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION EXAMS  
FIRST YEAR  
PAPER IV – ADVANCE NUTRITION**

***Q.P. Code : 281304***

**Time : Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Explain Direct and indirect calorimetry.
2. Discuss on Physiological role and deficiency of iron.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Growth studies and nutrient balance studies.
2. Factorial estimation of Total Energy Expenditure.
3. Functions of carbohydrates.
4. Digestion and absorption of proteins.
5. Classification of fats and fatty acids.
6. Regulation of water balance.
7. Physiological role of Vitamin A.
8. Functions of Vitamin C.
9. Physiological role of calcium.
10. Definition and classification of polyphenols.

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[LP 1019]

OCTOBER 2019

Sub. Code: 1304

**M.Sc. CLINICAL NUTRITION EXAMS  
FIRST YEAR  
PAPER IV – ADVANCE NUTRITION**

***Q.P. Code : 281304***

**Time : Three hours**

**Maximum : 100 Marks**

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

1. Discuss briefly about the digestion, absorption and utilization of carbohydrates.
2. Define BMR and discuss the factors affecting BMR in detail.

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

1. Discuss fatty acids briefly.
2. Explain the functions of water and electrolytes.
3. Lipoproteins.
4. Discuss the role of dietary fibre.
5. Explain Beri-Beri in detail.
6. Write a brief note on PEM.
7. Methods of determination of proteins.
8. Discuss anaemia in detail.
9. Deficiency diseases of Vitamin -A.
10. Phytoestrogens, its classes and give example.

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

**[AHS 0321]**

**MARCH 2021**

**Sub. Code: 1304**

**(OCTOBER 2020 EXAM SESSION)**

**M.Sc. CLINICAL NUTRITION**

**FIRST YEAR (From 2012-2014 onwards)**

**PAPER IV – ADVANCE NUTRITION**

***Q.P. Code : 281304***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Explain Digestion and absorption of proteins.
2. Physiological role and deficiency of water-soluble vitamins.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Factors affecting thermic effects of Food.
2. What is Glycemic index and factors affecting Glycemic index.
3. Protein deficiency.
4. Disease associated with fats.
5. Write about the disturbance in water balance.
6. Define the classification of polyphenol.
7. Functions of carbohydrates.
8. Physiological role of calcium.
9. Write about Fructo Oligo Saccharide.
10. Write about Pre and Probiotic.

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**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.

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