

**Exam Code: 324202**  
**(30)**

**Paper Code: 2245**

**Programme: Post Graduate Diploma in Nutrition and Dietetics**  
**Semester-II**

**Course Title: Hygiene and Food Microbiology**

**Course Code: PNDL-2281**

**Time Allowed: 3 Hours**

**Max Marks: 60**

**Instruction:**

**Attempt five questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 12 marks.**

**Section A**

1. a. Differentiate between industrial hygiene and personal hygiene.
- b. Discuss various types of immunity by giving suitable examples.
- c. Explain any 2 mechanical methods of disinfection in detail.

**(3x4 = 12)**

2. a. Describe the effect of hygiene on public health and immunity.
  - b. Discuss the importance of food hygiene at various steps in detail.
  - c. Discuss the various methods of disinfection in detail.
- (3x4 = 12)

#### Section B

3. a. Write in brief the history of microbiology.
  - b. Differentiate between antibiotics and antiseptics.
  - c. Discuss the various aspects of growth of microorganisms in food.
- (3x4 = 12)
4. a. Mention various sub disciplines of microbiology. Describe any 2 in detail.
  - b. Discuss in detail qualification of antimicrobial action.
  - c. Define food hazards. Describe any 2 food hazards of microbial origin in detail by giving suitable examples.
- (3x4 = 12)

#### Section C

5. a. Differentiate between food poisoning and food contamination and give suitable examples.
  - b. Describe the sources, signs and symptoms of food poisoning caused by *Clostridium Botulinum*.
  - c. Describe the ill effects of any 2 naturally occurring toxicants.
- (3x4 = 12)
6. a. Describe the various methods of transmission of bacteria.
  - b. Describe the sources, signs and symptoms of food poisoning caused by *Staphylococcal*.
  - c. Describe any 2 miscellaneous contaminants in detail.
- (3x4 = 12)

#### Section D

7. a. Differentiate between food preservation and food packaging.
- b. Describe in detail the food spoilage caused in meat products.

c. Discuss the classification of packaging materials in detail by giving suitable examples.

(3x4 =12)

8. a. Describe the food preservation of pulses in detail.

b. Describe the functional role of food additive. -

c. Explain the importance of food packaging in today's time.

(3x4 =12)



**Exam Code: 324202  
(30)**

**Paper Code: 2246**

**Programme: Post Graduate Diploma in Nutrition and Dietetics  
Semester-II**

**Course Title: Diet Therapy and Applied Nutrition**

**Course Code: PNDL-2282**

**Time Allowed: 3 Hours**

**Max Marks: 60**

**Note:**

- Each question carries 12 marks
- Candidates are required to attempt 5 questions, selecting at least one question from each section.
- The fifth question may be attempted from any section.

**Section A**

1. a) Write a note on effect of drugs on food intake and absorption. (6)  
b) Discuss dietary management in obesity. (6)
2. a) What do you understand by soft diet? Under what conditions it is recommended to have a soft diet. What are the disadvantages of an full fluid diet. (6)  
b) What are the principles of diet in typhoid. Discuss its dietary management. (6)

### Section B

3. a) Discuss the principles of diet in peptic ulcer. Discuss its causes and dietary management. (6)  
b) Discuss inflammatory bowel disease with special reference to its dietary management. (6)
4. What are the principles of diet in jaundice and hepatic coma. Discuss the dietary management in both conditions. (12)

### Section C

5. a) What is CKD? Discuss principles and dietary management of CKD. (8)  
b) Discuss the diet of a patient on haemodialysis. (4)
6. a) Discuss hyperlipidemia and its dietary management (6)  
b) Discuss hypertension and its dietary management. (6)

### Section D

7. Discuss the causes, symptoms, complications and dietary management of diabetes. (12)
8. What are the nutritional problems and nutritional requirements in cancer. Briefly discuss the dietary management. (12)

**Exam Code: 324202**      **Paper Code: 2247**  
**(30)**

**Programme: Post Graduate Diploma in Nutrition and Dietetics**  
**Semester-II**

**Course Title: Nutritional Science**

**Course Code: PNDL-2283**

**Time Allowed: 3 Hours**

**Max Marks: 60**

**Note: Students are required to attempt a total of five questions, one question from each section and fifth question can be from any section. Each question carries 12 marks.**

**Section A**

1. Define RDA. What are the general principles of driving RDA and also write the factors affecting RDA?  
12 Marks
2. What are Carbohydrates? Write about functions, digestion and absorption of Carbs.      12 Marks

**Section B**

3. Write the factors affecting the following
  - a) BMR      6 Marks
  - b) Thermic effect of food      6 Marks



4. Define Proteins. Write about the chemical composition, properties and classification of proteins. 12 Marks

**Section C**

5. Write a note on following
- a) Iodine deficiency disease. 6 Marks
  - b) Functions of Zinc. 6 Marks
6. Write a note on following
- a) Vitamin A deficiency. 6 Marks
  - b) Vitamin D deficiency. 6 Marks

**Section D**

7. What are antioxidants? Write a note on antioxidants define system. 12 Marks
8. Write a note on role of vitamin B in energy metabolism and vitamin C deficiency disease. 12Marks

**Exam Code: 324202**

**Paper Code: 2248**

**Programme: Post Graduate Diploma in Nutrition and Dietetics**

**Semester II**

**Course Title: Principles of Food Science**

**Course Code: PNDM-2284**

**Time allowed: 3 hours**

**Max. Marks: 60**

Note: Students are required to attempt a total of five questions, one question from each section and fifth question can be from any section. Each question carries 12 marks.

**Section A**

1. Define colloidal system. Explain the relation of cookery to colloidal chemistry.
2. Write short note on:
  - a) Hydrophobic and Hydrophilic colloidal
  - b) Stabilization of colloidal properties

**Section B**

3. Describe the following:
  - a) Extraction method of edible fats and oil
  - b) Sources and uses of fats
4. Describe the composition and baking qualities of flours.

**Section C**

- 5Q: Write short note on:
- a) Post mortem changes in meat
  - b) Changes in meat during cooking and tenderness
6. Describe the composition and structure of egg

**Section D**

7. What are pulses and legumes? Explain its composition and methods of processing and cooking.
8. Explain the structure, texture and pigment of fruits and vegetables.



Exam Code: 324202  
(30)

Paper Code: 2249

Programme: Post Graduate Diploma in Nutrition and Dietetics  
Semester-II

Course Title: Meal Management

Course Code: PNDM-2288

Time Allowed: 3 Hours

Max Marks: 60

Note: Attempt FIVE questions, selecting at least ONE question from each section. The Fifth question may be attempted from any Section. Each question carries 12 marks.

Section - A

1. Write a short note on C01
- (a) Mutual Supplementation.
  - (b) Recommended Dietary Allowances
  - (c) Food Group
- (3x4=12)
2. What do you know about Balanced Diet? Elaborate the concept of Exchange list. (12)

Section - B C02

3. What is menu planning considered an important activity in a food service organization? Discuss. (12)

4. Explain the various factors to be kept in mind while planning diets (12)

**Section - C**

WOM

5. Write short notes on  
(a) Gestational Diabetes  
(b) Pre-Eclampsia (6+6=12)
6. What do you understand by weaning? Which nutrients require special attention while planning weaning foods and why? (12)

**Section -D**

WOM

7. Discuss giving reasons, the various nutrition related problems common among the adolescents. What steps would you advocate to overcome the same. (12)
8. What measures would you suggest to overcome obesity in school children? (12)