

**Uttar Pradesh Rajarshi Tandon Open University, Prayagraj**

**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject : Food and Nutrition**  
**Course Title : Applied Physiology**

**Subject Code : MFN -101**  
**Course Code : MFN -101**

**Maximum Marks: 30**

**Section - A                      Maximum Marks: 18**

**Note : Long Answer type Questions. Answer should be given in 800 to 1000 words. Answer all questions. All questions are compulsory**

Ques-1- *Illustrate and label the four chambers of hearts. Briefly describe the blood flow in the heart.* 6

Ques-2- a- *Differentiate between the bronchi and bronchioles.* 6

b- *Explain the following terms and its significance-*

1. *Oxygen dissociation curve.*
2. *Pulmonary volumes.*

Ques-3- *Write down the functions and hormones secreted by the following glands-* 6

- a. *Thyroid gland*
- b. *Adrenal gland*
- c. *Pituitary gland*

**Section - B                      Maximum Marks: 12**

**Note : Short Answer type Questions. Answer should be given in 200 to 300 words. All questions are compulsory**

Ques-4- *Briefly explain the physiology of lactation.* 2

Ques-5- *What type hormones are Secreted by the placenta and mention their role also.* 2

Ques-6- *What is mitosis? Explain its phases.* 2

Ques-7- *Explain the significance of thalamus and Hypothalamus in our brain.* 2

Ques-8- *List the functions of bile.* 2

Ques-9- *What is cardiac output? How is it calculated?* 2

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**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject : Food and Nutrition**  
**Course Title : Advanced Nutritional Biochemistry**

**Subject Code : MFN -102**  
**Course Code : MFN -102**

**Maximum Marks: 30**

**Section – A                      Maximum Marks: 18**

***Note: Long Answer type Questions. Answer should be given in 800 to 1000 words.  
Answer all questions. All questions are compulsory***

- Ques- 1- *What are monosaccharide's, Polysaccharides and oligosaccharides ? Give examples with their chemical structure.* 6
- Ques- 2- *What are the chemical active forms of Thiamine, Riboflavin and Niacin? Mention their role in metabolisms.* 6
- Ques- 3- *Write down the significance of citric acid cycle. Describe the reactions involved in ATP generation in the cycle.* 6

**Section – B                      Maximum Marks: 12**

***Note: Short Answer type Questions. Answer should be given in 200 to 300 words.  
All questions are compulsory***

- Ques- 4- *Discuss briefly the chemistry and functions of phospholipids.* 2
- Ques- 5- *Present the structure and classification of nucleic acid.* 2
- Ques- 6- *How is biosynthesis of cholesterol regulated by the amount of cholesterol in diet.* 2
- Ques- 7- *Define glycolysis and gluconeogenesis.* 2
- Ques- 8- *Write down the functions of plasma proteins.* 2
- Ques- 9- *Define proteoglycans.* 2

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**Assignment- 2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject: Food and Nutrition**  
**Course Title: Advances in Food Microbiology**

**Subject Code : MFN-103**  
**Course Code : MFN -103**

**Maximum Marks: 30**

**Section – A                      Maximum Marks: 18**

***Note: Long Answer type Questions. Answer should be given in 800 to 1000 words.***  
***Answer all questions. All questions are compulsory***

- Ques -1- Name a few diseases which are caused due to parasitic infection.  
Discuss any two in detail. 6
- Ques- 2- Elaborate the factors affecting the growth of micro organisms. 6
- Ques- 3- Explain the term and their significance in the context of food preservation. 6
1. Pasteurization
  2. Fermentation
  3. Irradiation

**Section – B                      Maximum Marks: 12**

***Note: Short Answer type Questions. Answer should be given in 200 to 300 words.***  
***All questions are compulsory***

- Ques- 4- What are the common hazards of food safety? 2
- Ques -5- What do you understand by the positive aspects of microbial growth? 2
- Ques -6- Enumerate the role of bacteria in spoilage of fruits and vegetables. 2
- Ques - 7- Suggest measures to reduce exposure to chemical contamination from the environment. 2
- Ques - 8- Define food contamination. 2
- Ques- 9- Enlist a few general requirements that are specific to the storage of foods. 2

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**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject : Food and Nutrition**

**Course Title : Practical Work**

**Subject Code : MFN -104**

**Course Code : MFN -104**

*Practical Work- Based on Paper no. MFN-101,102,103*

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**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject: Food and Nutrition**

**Course Title: Food Science and Experimental Cookery**

**Subject Code : MFN-105**

**Course Code : MFN -105**

**Maximum Marks: 30**

**Section – A                      Maximum Marks: 18**

***Note: Long Answer type Questions. Answer should be given in 800 to 1000 words.***

***Answer all questions. All questions are compulsory***

*Question .1 - Describe the structure and composition of eggs and changes during storage.                      6*

*Question .2 Explain food and nutritional security. Describe the determinants of food security.                      6*

*Question . 3– Explain the classification, composition proteins in cereals.                      6*

**Section – B                      Maximum Marks: 12**

***Note: Short Answer type Questions. Answer should be given in 200 to 300 words.***

***All questions are compulsory.***

*Question .4-Leavened products                      2*

*Question .5-Tenderization                      2*

*Question .6-Nature of enzymes stability and action                      2*

*Question .7-Fat deterioration and antioxidants                      2*

*Question .8- Non enzymatic Browning.                      2*

*Question .9-Gelatinization                      2*

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**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject : Food and Nutrition**

**Subject Code : MFN-106**

**Course Title : Advanced Clinical and Therapeutic Nutrition**

**Course Code : MFN-106**

**Maximum Marks: 30**

**Section – A                      Maximum Marks: 18**

***Note: Long Answer type Questions. Answer should be given in 800 to 1000 words.  
Answer all questions. All questions are compulsory***

- Question 1. Briefly explain the dietary management of coronary heart disease with special emphasis on dietary fats and carbohydrate intake in the diet. 6
- Question 2. elaborate on the role of sodium restrictions in the management of hypertension. 6
- Question 3. Enumerate the common diets that are prescribed in the hospital situations. Discuss the role of dietitian in patient care. 6

**Section – B                      Maximum Marks: 12**

***Note: Short Answer type Questions. Answer should be given in 200 to 300 words.  
All questions are compulsory***

- Question 1. discuss the medical nutrition therapy for typhoid and tuberculosis. 2
- Question 2. enlist the classification metabolic and clinical manifestations of obesity. 2
- Question 3. Enlist the dietary recommendations for the ulcerative colitis condition. 2
- Question 4. Write down the management goals and nutritional recommendation for chronic renal failure. 2
- Question 5. Suggest practical eating suggestions for symptoms management of HIV and AIDS infected patients. 2
- Question 6. Give the dietary and lifestyle management goals for constipation in adults. 2



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Assignment-2020-2021

Master of Science in Food and Nutrition (MFN)

Subject : Food and Nutrition

Subject Code : MFN-112

Course Title : Food processing and preservation technology

Course Code : MFN-112

Maximum Marks: 30

**Section - A                      Maximum Marks: 18**

***Note: Long Answer type Questions. Answer should be given in 800 to 1000 words.  
Answer all questions. All questions are compulsory***

- Question .1-Explain the various method food processing and its advantages in daily life.                      6
- Question .2-Explain the milk processing. Give some examples.                      6
- Question .3-Describe the Fruit and Vegetable Structure, composition, physiological and its biochemical changes during ripening.                      6

**Section - B                      Maximum Marks: 12**

***Note: Short Answer type Questions. Answer should be given in 200 to 300 words.  
All questions are compulsory***

- Question .4- Definition of food additives with example.                      2
- Question .5-Define the chelating agents.                      2
- Question .6- Write about Enrichment and fortification technology.                      2
- Question .7-Write about pasteurisation and homogenisation.                      2
- Question .8- Write about stabilizers and thickeners.                      2
- Question .9 Explain the Ageing and tenderising of Meat.                      2

**Uttar Pradesh Rajarshi Tandon Open University, Prayagraj**

**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject : Food and Nutrition**

**Course Title : Practical Work**

**Subject Code : MFN -108**

**Course Code : MFN -108**

**Practical Work- Based on Paper no. MFN-105,106,107**

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**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject : Food and Nutrition**

**Subject Code : MFN-109**

**Course Title : Advanced Community Nutrition**

**Course Code : MFN-109**

**Maximum Marks: 30**

**Section – A                      Maximum Marks: 18**

***Note: Long Answer type Questions. Answer should be given in 800 to 1000 words.  
Answer all questions. All questions are compulsory***

Question 1. Explain the term community nutrition. What are the main factors affect the community nutrition ? 6

Question 2. Explain any two nutritional programmes for the community health. 6

Question 3. Why is community participation important in the implementation of any nutrition program? Briefly describe the theories of nutrition education. 6

**Section – B                      Maximum Marks: 12**

***Note: Short Answer type Questions. Answer should be given in 200 to 300 words.  
All questions are compulsory***

Question 1. Differentiate between marasmus and kwashiorkor. 2

Question 2. Discuss some strategies to improve urban sanitization. 2

Question 3. Write the importance of dietary survey in community. 2

Question 4. Write the food based strategies to combat malnutrition. 2

Question 5. Discuss the role of mass media as a channel for nutrition communication. 2

Question 6. How can we find out the maternal and infant mortality rate in community. 2

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**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject : Food and Nutrition**  
**Course Title : Advance Nutrition**

**Subject Code : MFN -110**  
**Course Code : MFN -110**

**Maximum Marks: 30**

**Section – A                      Maximum Marks: 18**

***Note: Long Answer type Questions. Answer should be given in 800 to 1000 words.  
Answer all questions. All questions are compulsory***

***Question 1-Describe in detail the Composition, classification and functions of fats.*** **6**

***Question 2-Write in detail about the functions, dietary sources and effect of deficiency  
of Iron on Human body.*** **6**

***Question 3-Explain the nutritional need during old age. What are the factors that affects  
the food intake during old age .*** **6**

**Section – B                      Maximum Marks: 12**

***Note: Short Answer type Questions. Answer should be given in 200 to 300 words.  
All questions are compulsory***

***Question 4- Write short comment on techniques for quality determination of protein.*** **2**

***Question 5-Explain the difference between contagious and non contagious diseases.*** **2**

***Question 6- Write a short note on food product order (FPO).*** **2**

***Question 7-What do you understand by supplementary food?*** **2**

***Question 8-What is NPU?*** **2**

***Question 9-Write the advantages of brain storming .*** **2**

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**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject : Food and Nutrition**

**Course Title : Internship**

**Subject Code : MFN -111**

**Course Code : MFN -111**

**Internship: Based on Overall Syllabus.**

*Note: Kindly Contact to Your Study Centre or Academic Main Campus.*

**Uttar Pradesh Rajarshi Tandon Open University, Prayagraj**

**Assignment- 2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject: Food and Nutrition**

**Course Title: Food Processing and Preservation Technology**

**Subject Code : MFN-112/115**

**Course Code : MFN-112/115**

**Maximum Marks: 30**

**Section – A                      Maximum Marks: 18**

***Note: Long Answer type Questions. Answer should be given in 800 to 1000 words.***

***Answer all questions. All questions are compulsory***

***Question- 1- Describe the need and importance of food preservation. Explain with examples. 6***

***Question- 2- Describe various types of food preservation methods. 6***

***Question- 3- Describe Indigenous and modern methodology of food preservation techniques. 6***

**Section – B                      Maximum Marks: 12**

***Note: Short Answer type Questions. Answer should be given in 200 to 300 words.***

***All questions are compulsory***

***Question- 4- Explain pasteurization. 2***

***Question- 5- Explain meat and meat products preservation and processing. 2***

***Question- 6- Explain about fermentation with examples. 2***

***Question- 7- Explain about fortification with examples. 2***

***Question- 8- Explain Indigenous methods of grain storage. 2***

***Question- 9- Briefly explain the principle of food preservation. 2***

**Uttar Pradesh Rajarshi Tandon Open University, Prayagraj**

**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject : Food and Nutrition**

**Subject Code : MFN-113**

**Course Title: Nutritional Management in Health and Diseases**

**Course Code : MFN-113**

**Maximum Marks: 30**

**Section – A      Maximum Marks: 18**

**Note: Long Answer type Questions. Answer should be given in 800 to 1000 words.  
Answer all questions. All questions are compulsory**

*Question .1 -Give the nutritional guidelines you would advocate to develop good eating habits and good health among older school children and adolescents. The nutrient requirement for adults are influenced by age, sex and activity level. Justify the statement by giving appropriate examples.*

6

*Question.2-Give the nutritional management goals and dietary recommendation for a patient suffering from hepatic coma. What is gluten free diet ? For which disease condition would you advocate this diet.*

6

*Question 3-Give the classification and aetiology of diabetes. Discuss the relevance of the food exchange system in the dietary management of diabetes.*

6

**Section – B      Maximum Marks: 12**

**Note: Short Answer type Questions. Answer should be given in 200 to 300 words.  
All questions are compulsory**

*Question .4-Enlist the foods you would include and restrict in the diet of patients suffering from Maple Syrup Urine Disease.*

2

*Question .5-List the foods you would include and restrict in the diet of patient suffering from chronic kidney disease.*

2

*Question .6-Give the dietary management of a patient suffering from typhoid.*

2

*Question .7-Write down the dietary management of a patient suffering from high blood pressure.*

2

*Question .8- What is ulcerative colitis? Enlist the dietary recommendations for this condition.*

2

*Question .9-Write down the role of antioxidants in Cancer prevention.*

2

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**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject : Food and Nutrition**

**Subject Code : MFN-114/117**

**Course Title: Nutrition Policies and Intervention of programs**

**Course Code : MFN-114/117**

**Maximum Marks: 30**

**Section – A                      Maximum Marks: 18**

***Note: Long Answer type Questions. Answer should be given in 800 to 1000 words.  
Answer all questions. All questions are compulsory***

*Question 1. Discuss about the main purpose of the nutrition programs? What is nutrition education program and how can it implement in the community.* 6

*Question 2. Discuss about any two nutritional programmes run by government for the well being of community.* 6

*Question 3- Describe the role of women in National and community development. -Explain the role of education and various national schemes and policies for the empowerment of Women.* 6

**Section – B                      Maximum Marks: 12**

***Note: Short Answer type Questions. Answer should be given in 200 to 300 words.  
All questions are compulsory***

*Question 1- Write about the Situation of women in global, national and in local context.* 2

*Question 2. Explain the nutritional management for healthy lifestyle.* 2

*Question 3-Enlist 5 government programs run for the welfare of children.* 2

*Question 4-Write about the aim of ICDS programme.* 2

*Question 4-Describe the intervention program.* 2

*Question 4-Breifly explain the immunization chart.* 2

**Uttar Pradesh Rajarshi Tandon Open University, Prayagraj**

**Assignment-2021-2022**

**Master of Science Food and Nutrition (M.Sc. FN)**

**Subject : Food and Nutrition**

**Course Title : Dissertation**

**Subject Code : MFN -118**

**Course Code : MFN -118**

**Dissertation : Based on Overall Syllabus.**

*Note: Kindly Contact to Your Study Centre or Academic Main Campus.*