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

6

6

#### 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.

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

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

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

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

6

6

### 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.

Ques- 2- Elaborate the factors affecting the growth of micro organisms.

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

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

### Uttar Pradesh Rajarshi Tandon Open University, Prayagraj Assignment-2022-2023 Master of Science Food and Nutrition (M.Sc. FN)

**Subject: Food and Nutrition** Subject Code: MFN-105 **Course Title: Food Science and Experimental Cookery 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

Uttar Pradesh Rajarshi Tandon Open University, Prayagraj	
Assignment-2022-2023	
Master of Science Food and Nutrition (M.Sc. FN)	
Subject : Food and NutritionSubject Code : MFN-106	
Course Title : Advanced Clinical and Therapeutic Nutrition Course Code : MFN-106	
Maximum Marks: 3	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 spece emphasis on dietary fats and carbohydrate intake in the diet.	cial 6
Question 2.elaborate on the role of sodium restrictions in the management of hypertens	sion. 6
Question 3. Enumerate the common diets that are prescribed in the hospital situations. the role of dietitian in patient care.	Discuss 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 of HIV and AIDS infected patients.	2
Question 6. Give the dietary and lifestyle management goals for constipation in adults.	2

Uttar Pradesh Rajarshi Tandon Open University, Prayagraj Assignment-20222023		
Master of Science in Food and Nutrition (M.Sc. FN)		
Subject : Food and NutritionSubject Code : MFN -107Course Title : Research Methodology and StatisticsCourse Code : MFN- 107		
Maximum	Marks: 30	
Section – A Maximum Marks: 18		
Note: Long Answer type Questions. Answer should be given in 800 to 1000 wo Answer all questions. All questions are compulsory	ords.	
Question . 1- Differentiate between the following research designs, giving appropriate	ate examples. 6	
I) Analytic study 2) Descriptive study		
Question .2What is meant by sampling? With the help of an example, explain the	concept of random	
sampling, stratified sampling, cluster sampling and purposive sampling.	6	
<i>Question .3- How will you perform the following using MS Word : (i) Formatting Text (ii) Headers and Footers (iii) Use Format Painter</i>	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 .4Frequency polygon	2	
Question .5Mean and Median	2	
Question .6concept of normal probability distribution.	2	
Question .7- Briefly describe the Random Sampling.	2	
Question .8- What is secondary data?	2	
Question .9 Write down the importance of statistics in population studies.	2	

Uttar Pradesh Rajarshi Tandon Open University	/, Prayagraj	
Assignment-2022-2023		
Master of Science in Food and Nutrition (MF	,	
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 Ma	<u>rks: 18</u>	
Note: Long Answer type Questions. Answer should be given in Answer all questions. All questions are compulsory	800 to 1000 words.	
Question .1-Explain the various method food processing and it	s advantages in daily life. 6	
Question .2-Explain the milk processing. Give some examples.	6	
<i>Question .3-Describe the Fruit and Vegetable Structure, compo- and its biochemical changes during ripening.</i>	sition, physiological 6	
Section – B Maximum Ma	arks: 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	

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

Uttar Pradesh Rajarshi Tandon Open University, Prayagraj	
Assignment-2022-2023	
Master of Science Food and Nutrition (M.Sc.	. FN)
Subject : Food and Nutrition Su	bject Code: MFN-109
Course Title : Advanced Community Nutrition	ourse Code : MFN-109
M	laximum Marks: 30
Section – A Maximum Marks: 18	<u>3</u>
Note: Long Answer type Questions. Answer should be given in 800 to 1 Answer all questions. All questions are compulsory	1000 words.
Question 1. Explain the term community nutrition. What are the main f affect the community nutrition ?	actors 6
Question 2.Explain any two nutritional programmes for the community	health. 6
Question 3.Why is community participation important in the implement nutrition program? Briefly describe the theories of nutrition	•
Section – B Maximum Marks: 1	<u>.2</u>
Note: Short Answer type Questions. Answer should be given in 200 to . All questions are compulsory	300 words.
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 o	communication. 2
Question 6.How can we find out the maternal and infant mortality rate	in community. <b>2</b>

Master of Science Food and Nutrition (	M.Sc. FN)
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Subject :Food and NutritionCourse Title :Advance Nutrition	Subject Code : MFN -110 Course Code : MFN -110
	Maximum Marks: 30
Section – A Maximum Mar	rks: 18
Note: Long Answer type Questions. Answer should be given in 8 Answer all questions. All questions are compulsory	800 to 1000 words.
<b>Question 1-</b> Describe in detail the Composition, classification and fu	unctions of fats. 6
<b>Question 2-</b> Write in detail about the functions, dietary sources and	l effect of deficiency
of Iron on Human body.	6
<b>Question 3</b> -Explain the nutritional need during old age. What are t	the factors that affects
the food intake during old age .	6
<u>Section – B Maximum Ma</u>	arks: 12
Note: Short Answer type Questions. Answer should be given in All questions are compulsory	200 to 300 words.
Question 4- Write short comment on techniques for quality determ	nination of protein. 2
<b>Question 5</b> -Explain the difference between contagious and non con	ntagious diseases. 2
<b>Question 6-</b> Write a short note on food product order (FPO).	2
<b>Question 7-</b> What do you understand by supplementary food?	2
<b>Question 8-</b> What is NPU?	2
Question 9-Write the advantages of brain storming .	2

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- 2022-2023		
Master of Science Food and Nutrition (M.Sc. FN)		
Subject: Food and NutritionSubject Code : MFN-112/1Course Title: Food Processing and Preservation TechnologyCourse Code : MFN-112/11		
Maximum Marks: 3	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		
<b>Question-</b> 1- Describe the need and importance of food preservation. Explain with exa	mples. 6	
<i>Question-</i> 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	

Assignment-2022-2023 Master of Science Food and Nutrition (M.Sc. FN)	
Subject : Food and Nutrition Subject Code : MF	'N-113
Course Title: Nutritional Management in Health and Diseases Course Code : MFI	N-113
Maximum Marks	s: 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 habit	s 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 appropriat	e 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 y	
this diet.	6
Question 3-Give the classification and aetiology of diabetes. Discuss the relevance of the foot	
system in the dietary management of diabetes.	6
Section – B Maximum Marks	<u>: 12</u>
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 fro	om 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 diary management of of a patient suffering from high blood press	sure. 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

Uttar Pradesh Rajarshi Tandon Open University, Prayagraj	
Assignment-2022-2023	
Master of Science Food and Nutrition (M.Sc. FN)	
Subject : Food and Nutrition Subject Code : MFN-114/11	7
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.	on 6
Question 2. Discuss about any two nutritional programmes run by government for the well being community.	of 6
Question .3- Describe the role of women in National and community developmentExplain 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

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.