

Mansoura University Faculty of Agriculture Department of Poultry Production Course Title: Poultry Nutrition Course Code: Pol 306 Full Assessment: 60 Marks		Academic Year: 2016/2017 Semester: Second Term Exam Type: Final (Written) Level & Program Studied: 3 rd (APF) Exam Date: 24 May, 2017 Exam Time: Two Hours
---	---	--

(The exam is composed of 6 pages)

Answer the following questions:

First Question (10 Marks): The answer must be written in the same sheet.
Write the scientific terms corresponding to the following phrases:

1. A term describing the microvillus-covered surface of small intestinal epithelial cells.
2. The common pathway for excretory, reproductive and digestive wastes.
3. Substances used by an animal for growth and development of its cells, organs, and tissue.
4. Polymers of 2 to 10 simple monosaccharides.
5. A term is used to describe a wide variety of compounds that are insoluble in water, and that dissolve in organic solvents such as chloroform and diethyl ether.
6. Amino acids that cannot be synthesized by animals in sufficient quantity to meet their nutritive requirement and therefore must be supplied in the diet.
7. A water-soluble vitamin that can be synthesized by poultry and therefore, it is not needed as an essential dietary nutrient.
8. A means of nutrient absorption across the enterocytes which takes place against the concentration gradient and requires energy.
9. The minimum of energy expended in fasting, resting animal under optimal environmental conditions.
10. The process by which the food is broken down into absorbable nutrients.

Answer to the First Question:

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Second Question (10 Marks, evenly distributed):

The answer must be written in the same sheet.

Write the suitable checkmark (✓ or ×) before each of the following statements:

- () Loss of appetite is also known as decreased feed intake.
- () Minerals required in small amounts are called trace minerals.
- () Added dietary vitamin C is beneficial for birds reared under stress.
- () A ratio of about 2 Ca to 1 non-phytate P is suitable for most growing poultry diets.
- () Dietary methionine is a precursor amino acid for the biosynthesis of cystine in poultry.
- () Hexoses and pentoses are oligosaccharides.
- () Birds fed high protein diets have lower water intake.
- () Feed intake of poultry increases under heat stress conditions.
- () Chickens are able to survive much longer without water than without feed.
- () Animal body can synthesize minerals; therefore, they are not dietary essential.

Third Question (20 Marks, evenly distributed):

The answer must be written in the same sheet.

Poultry need at least 40 essential nutrients in their diet ... list these essential nutrients in the following table.

Amino acids:	Minerals:	Vitamins:	Fatty acid(s):
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			

Forth Question (20 Marks, evenly distributed):

The answer must be written in the same sheets

Discuss briefly only four of the following topics:

1. General functions of minerals in poultry.
2. Importance and Physiological Functions of Water for Poultry.
3. Summarize in a table the nutrient requirements of turkeys.
4. Factors Affecting Water Intake by Poultry.
5. Summarize in a table the nutrient requirements of Japanese quail.
6. Factors affecting the digestibility of nutrients in poultry.
7. Summarize in a table the nutrient requirements of laying hens.

The Answer to the Forth Question:

1. General functions of minerals in poultry include:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

2. Importance and physiological functions of water for poultry include:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3. The nutrient requirements of turkeys can be summarized as follows:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

4. Factors affecting water intake by poultry include:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

[illegible][illegible]

This image shows a full page of a document template. It consists of approximately 20 horizontal rows. Each row is defined by two parallel dotted blue lines, creating a series of uniform gaps for writing. The lines are evenly spaced across the entire page, from top to bottom. There is no text or other content present.

Examiners:

Dr. Hayam Mohamed Abo El-Maaty