**CHUKA** 



#### **UNIVERSITY**

#### **UNIVERSITY EXAMINATIONS**

# THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN ANIMAL HEALTH AND PRODUCTION

#### ANSC 333: ANIMAL NUTRITION AND LIVESTOCK FEEDING

STREAMS: B.Sc ANSC TIME: 2 HOURS

DAY/DATE: FRIDAY 14/12/2018 2.30 P.M - 4.30 P.M.

#### **INSTRUCTIONS**

- Answer ALL questions in Section A and any TWO in Section B
- Do not write anything on the question paper

#### **SECTION A**

| 1.  | <ul><li>(a) Define the following terms;</li><li>(i) Nutrition</li><li>(ii) Feeding</li></ul>  | [2 Marks]<br>[2 Marks]                            |
|---|---|---|
| (b  | ) Describe feed components.   | [2 Marks]   |
| (c) Describe crude protein categories and give a source for each. |   | [4 Marks]   |
| 2.  | <ul> <li>(a) Highlight factors influencing proportion of crude fibre in plants.</li> <li>(b) State crude fibre rich feedstuffs.</li> <li>(c) Highlight how fat quantity in a feed is analyzed.</li> <li>(d) Describe how metabolic water is formed.</li> <li>(e) Highlight how ash quantity in a feed is analyzed.</li> </ul> | [2 Marks] [2 Marks] [2 Marks] [2 Marks] [2 Marks] |
| 3.  | (a) Describe vitamin categories.  | [2 Marks]   |
|   | (b) Describe animals referred to as non-ruminant herbivores with a rather large and large intestine.  | complex [2 Marks]                                 |
|   | (c) Describe attributes of ruminant animals.  | [2 Marks]   |
|   | (d) Describe advantages of maize as livestock feed.   | [2 Marks]   |
|   | (e) State different fodder trees.   | [2 Marks]   |

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## **SECTION B**

| 4. | <ul><li>(a) Describe the forage legumes species grown in Kenya.</li><li>(b) Describe the different grass species grown in Kenya.</li></ul>             | [10 Marks]<br>[10 Marks] |
|----|--|--------------------------|
| 5. | <ul><li>(a) Discuss factors influencing feed intake in domestic animals.</li><li>(b) Discuss factors influencing livestock feed formulation.</li></ul> | [10 Marks]<br>[10 Marks] |
| 6. | <ul><li>(a) Describe antinutritional factors found in feeds.</li><li>(b) Discuss factors influencing feed quality.</li></ul>                           | [10 Marks]<br>[10 Marks] |