



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/17 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER SPECIAL/SUPPLEMENTARY EXAMINATION

**FOR THE DEGREE OF BACHELOR OF SCIENCE AND BACHALOR OF
BIO-RESOURCE CONSERVATION**

COURSE CODE: SZL 121

COURSE TITLE: HIGHER INVERTEBRATES

DATE: 20/09/2017

TIME: 8:00 -10:00 a.m

INSTRUCTIONS TO CANDIDATES

Answer question **ONE** [1] and **ANY** other **TWO** [2] questions

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBUCO observes ZERO tolerance to examination cheating

1. [a] Describe the components **midgut** in crustaceans. (5 mks).
[b] Differentiate between **isogonic** and **heterogonic** types of growth. (5mks).
[c] With examples, explain the effect of **two**phytophagous arthropods to man. (5mks).
[d] Explain how **nocturnal**haematophagous insects locate their hosts.(5mks).
[e] State **five** features that have led to increased abundance of the chelicerates. [5mks]
[f] Explain the importance of **metamorphosis** in holometabolous hexapods. [5mks]
2. Explain the food acquisition **strategies** in aquatic crustaceans. (20mks)
3. [i]Describe the **non-chemical** defense mechanisms in uniramians (10mks)
[ii] Explain the processes of **embryogenesis** in arthropods. (10 mks).
4. [i] Describe the generalized **phalangidan**bodymorphology. (5mks).
[ii] State what you would regard as the **distinctive** features of **pauropodans**. (4mks).
[iii] List the **biotic factors** that affect growth in higher invertebrates. (3mks).
[iv] Explain **moulting** of the integument in symphylans. (8mks).
5. Review an anatomical functionality of a typical **cuticle** of arthropods. (20mks)