



(Knowledge for Development)

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KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2017/18 ACADEMIC YEAR
FIRST YEAR SECOND SEMESTER
MAIN EXAMINATION

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

COURSE CODE: SZL 121
COURSE TITLE: HIGHER INVERTEBRATES

DATE: Friday, 27th July, 2018 **TIME: 2:00 -4:00 p.m.**

INSTRUCTIONS TO CANDIDATES

Answer Question one (1) and any other two (2) Questions. Question one is compulsory and carries 30 marks, the other Questions carry 20 marks each.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



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1. [i] Explain the processes of **embryogenesis** in arthropods. (3mks).
[ii] Describe the generalized **malacostracan** morphology. (3mks).
[iii] State what you would regard as the **distinctive features** of chelicerates. (3mks).
[iv] How do **ecological factors** affect growth in arthropods? (3mks).
[v] Distinguish between **mullerian** and **batesian** mimicry. (3mks).
[vi] Briefly describe the **suspension feeding strategy** in aquatic arthropods. (3mks).
[vii] Differentiate between **euryhaline** and **stenohaline**. (3mks).
[viii] With examples, distinguish between **diphasic** and **polyphasic** life history. (4mks).
[ix] Illustrate how **metamorphosis** in arthropods has led to their present day abundance. (5mks).
2. [a] Describe the **circulatory system** of uniramians (5mks).
[b] What is the role of the **cuticle** to the increased abundance of **crustaceans**? (5mks)
[c] Briefly describe the **hind-gut** of insects. (5mks).
[d] Outline **five values** of arthropods human economics. (5mks).
3. [a] List **four components** of the foregut. (4mks)
[b] Explain the **ecdysis** process in insects (6mks)
[c] Account for the abundance of **higher invertebrates** (10mks)
4. Write a concise essay on the **subphylum uniramia** with special emphasis on the diagnostic morphological features of the different arthropod groups. (20 mks)
5. Describe the **structure and biology** of the arthropod integument. (20 mks)