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**UNIVERSITY EXAMINATIONS
2022/23 ACADEMIC YEAR**

**FOURTH YEAR FIRST SEMESTER
MAIN EXAMINATION**

**FOR THE DEGREE OF BACHEOR OF EDUCATION AND BACHELOR OF
AGRICULTURE EDUCATION AND EXTENSION**

COURSE CODE: SZL 411

COURSE TITLE: GENERAL ENTOMOLOGY

DATE: 14TH APRIL 2023

TIME: 8.00 – 10 .00 AM

INSTRUCTIONS TO CANDIDATES

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

TIME: 2 Hours

1. [a] Define [i] ecdysis [ii] hemimetabolous [iii] allelochemicals. (3mks)
[b] What are the functions of a tentorium? [4 mks]
[c] Outline four (4) fundamental traits of social insects (4 mks)
[d] State three (3) types of larvae. (3mks)
[e] Briefly describe coleopteran body morphology. (5 mks)
[f] Differentiate between obligatory and facultative types of diapause. (2mks)
[g] Briefly describe the visceral circulatory system of insects (5mks)
[h] Enumerate four [4] types of spiracles in insects (4 mks)
2. Discuss the morphological features of insects. (20 mks)
3. Write an essay on migration in insects with regards to the following subtopics:
 - i. Devastating aspects (5mks)
 - ii. Early warning signals (5mks)
 - iii. Mid-term control interventions (5mks)
 - iv. Long-term control interventions. (5mks)
4. Describe both physical and chemical communication in insects. (20mks)
5. Discuss various types of reproduction in insects. (20mks)