

**DECEMBER 2023  
EBS 311  
GENERAL BIOLOGY THEORY III  
2 HOURS**

Candidate's Index Number
Signature:

**UNIVERSITY OF CAPE COAST  
COLLEGE OF EDUCATION STUDIES  
SCHOOL OF EDUCATIONAL DEVELOPMENT AND OUTREACH  
INSTITUTE OF EDUCATION**

**COLLEGES OF EDUCATION  
FOUR-YEAR BACHELOR OF EDUCATION (B.ED)  
THIRD YEAR, END-OF-SECOND SEMESTER EXAMINATION, DECEMBER 2023**

**15<sup>TH</sup> DECEMBER 2023      GENERAL BIOLOGY THEORY III      2:00 PM – 2:30 PM**

**This paper consists of two sections, A and B. Answer ALL the questions in Section A and TWO questions from Section B. Section A will be collected after the first 30 minutes.**

**SECTION A  
(20 MARKS)**

**Answer ALL questions in this Section.**

**Items 1 to 20 are stems followed by four options lettered A to D. Read each item carefully and circle the letter of the correct or best option.**

1. The Chequer board used to show the results of random crossing was suggested by .....
  - A. Bennett.
  - B. Darwin.
  - C. Mendel.
  - D. Punnette.
2. Mendel entered an Augustinian ..... in 1843 at the of 21.
  - A. cathedral
  - B. church
  - C. ministry
  - D. monastery
3. Mendel presented his works in Natural History Society in .....
  - A. America.
  - B. Brunn.
  - C. Germany.
  - D. Soviet Union.

4. Plants that have lost their capacity to produce seeds reproduce by the method of .....
  - A. budding.
  - B. fission.
  - C. multiple fission.
  - D. vegetative propagation.
  
5. Since asexual reproduction rarely involves meiosis the offspring are usually ..... to each other.
  - A. antagonistic
  - B. different
  - C. identical
  - D. mutualistic
  
6. What is the base on which the parts of a flower sit?
  - A. Fallopian tube
  - B. Placenta
  - C. Sepal
  - D. Thalamus
  
7. What is a stolon?
  - A. Long vertical leaf
  - B. Long vertical stem
  - C. Swollen fibrous root
  - D. Swollen vertical root
  
8. Which one of these may you take to be a runner?
  - A. Lateral stem on the soil surface
  - B. Swollen tip of slender rhizome
  - C. Slender vertical root
  - D. Underground horizontal branches
  
9. In cases where the excretory system is closely associated with the reproductive system, the two systems are traditionally known as ..... system.
  - A. excre-repro
  - B. excreto-reproductive
  - C. reprodo-excreto
  - D. urinogenital
  
10. The singular of vasa efferentia is .....
  - A. vas efferens.
  - B. vas efferent.
  - C. vas efferentia.
  - D. vasa efferent.
  
11. The sperm is carried in the ..... from the epididymis.
  - A. germinal epithelium
  - B. prostate gland
  - C. seminiferous tubules
  - D. vas deferens

12. Oogenesis is the process of egg .....
- A. division.
  - B. elimination.
  - C. production.
  - D. release.
13. Human beings can be categorized as .....
- A. autotrophs.
  - B. heterotrophs.
  - C. parasites.
  - D. saprophytes.
14. Tiny pores present on the surface of leaves through which gaseous exchanges occur are .....
- A. food holes.
  - B. gas holes.
  - C. guard cells.
  - D. stomata.
15. During photosynthesis, plants take .....
- A. CO<sub>2</sub> and release O<sub>2</sub>.
  - B. CO<sub>2</sub> and do not release O<sub>2</sub>.
  - C. O<sub>2</sub> and release CO<sub>2</sub>.
  - D. O<sub>2</sub> and do not release CO<sub>2</sub>.
16. The breakdown of complex components of food into simpler substances is called .....
- A. appetite.
  - B. assimilation.
  - C. digestion.
  - D. malnutrition.
17. The ..... of *Oreochromis niloticus* is the Fosu lagoon in Cape Coast.
- A. biosphere
  - B. habitat
  - C. population
  - D. succession
18. Which one of these is an abiotic component?
- A. Cockroach
  - B. Frog
  - C. Snake
  - D. Water
19. Colonies of nitrogen-fixing bacteria are located on ..... are characteristic swellings of legumes.
- A. callus
  - B. gout
  - C. nodules
  - D. pustules
20. Human ear is **most** sensitive to noise in which of the following frequency ranges?
- A. 1-2 Hz
  - B. 10-12 Hz
  - C. 13-16 Hz
  - D. 100-150 Hz