

TECHNICAL UNIVERSITY OF MOMBASA
FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR THE DIPLOMA IN
ENVIRONMENTAL SCIENCE.

DES 16S /YEAR1/ SEMESTER1

AES 2102: SURVEY OF PLANT & ANIMAL KINGDOM

INSTRUCTIONS TO CANDIDATES

Answer questions ONE (COMPULSORY) and any other TWO questions.

QUESTION 1 (COMPULSORY)

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- a) Define the following terms as used in plant classification
- i. Gametophyte (1mk)
 - ii. Sporophyte (1mk)
 - iii. Vascular tissue (1mk)
 - iv. Taxonomy (1mk)
 - v. Chlorophyll (1mk)
- b) State the four major groups (sub-kingdoms/divisions) in the plant kingdom (4mks)
- c) In which sub-kingdom is blue-green algae found? (1mk)
- d) What is the significance of **small pollen grains** in Angiosperms? (2mks)
- e) State **four** patterns of cell organization in animals (4mks)

- f) Differentiate between incomplete digestive system and complete digestive system giving example of an animal in each group (4mks)
- g) State three types of body symmetry found in animals (3mks)
- h) State the order of classification of animal kingdom (hierarchy) starting from the most general to the more specific (5mks)
- i) What is the difference between **open and closed circulatory system** as used in animal classification? (2mks)

QUESTION 2.

Compare and contrast **Angiosperms and Gymnosperms** giving examples in each category (15mks)

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QUESTION 3

Discuss the socio-economic benefits of trees (15mks)

QUESTION 4

Describe **five** characteristics in each of the following classes of the animal kingdom (15mks)

- a) Class Amphibia
- b) Class Mammalia
- c) Class Aves

QUESTION 5

Discuss the effects of global warming on both plants and animals (15mks)