



UNIVERSITY of
RWANDA

COLLEGE OF SCIENCE AND TECHNOLOGY

CENTRE FOR LANGUAGE ENHANCEMENT

ENGLISH FOR SPECIFIC PURPOSES

END OF SEMESTER 1 EXAMINATION – ACADEMIC YEAR 2024-2025

LEVEL OF STUDY: 2 SCHOOL OF ENGINEERING

MODULE: ESP 2112

MODULE WEIGHTING: 10 credits

DURATION: 2 hours

DATE: 07 January 2025

MAXIMUM MARKS: 50

1. This paper contains **THREE SECTIONS**: All of them are **compulsory**.
2. Write both your registration and your examination numbers on the

Examination Booklets provided.
3. Write all your answers only in the examination booklet provided.
4. Do not write on this question paper.
5. Start each question on a fresh page.
6. No unauthorized material is allowed in the Examination Room

SECTION ONE; READING COMPREHENSION AND VOCABULARY/15 MARKS

PEDOLOGY

Pedology (from Greek: pedon, "soil" and logos, "knowledge") is the study of soils in its natural environment. It is one of two main branches of soil science, the other being edaphology. Pedology deals with pedogenesis, soil morphology, soil classification.

Defined narrowly, it is a science that is concerned with the nature and arrangement of horizons in soil profiles; the physical constitution and chemical composition of soils; the occurrence of soils in relation to one another and to other elements of the environment such as climate, natural vegetation, topography and rocks; the modes of origin of soils. Pedology so defined does not include soil technology, which is concerned with uses of soils.

Broadly, pedology is the science of the nature, properties, formation, distribution, and function of soils, and of their response to use, management, and manipulation. The first definition is widely used in the United States and less so in other countries. The second definition is worldwide.

..... A.... and their utilization, is especially important in planning foundations for structures and highways. How the soil of a given site will support the weight of structures or respond to movement in the course of construction depends on a number of properties (e.g., compressibility, elasticity, and permeability). Examination techniques include trench-digging, boring, and pumping samples to the surface with water. Seismic testing and measurement of electrical resistance also yield helpful information. In road construction, soil mechanics helps determine which type of pavement (rigid or flexible) will last longer. The study of soil characteristics is also used to chooseB.....

Soil is not only a support for vegetation, but it is also the zone (the pedosphere) of numerous interactions between climate (water, air, temperature), soil life (micro-organisms, plants, animals) and its residues, the mineral material of the original and added rock, and its position in the landscape.C..... the soil profile slowly deepens and develops characteristic layers, called 'horizons', while a steady state balance is approached.

Soil users (such as agronomists) showed initially little concern in the dynamics of soil. They saw it as medium whose chemical, physical and biological properties were useful for the services of agronomic productivity.D..... did not initially focus on the agronomic applications of the soil characteristics (edaphic properties), but upon its relation to the nature and history of landscapes. Today, there's an integration of the two disciplinary approaches as part of landscape and environmental sciences.

Pedologists are now also interested in the practical applications of a good understanding of pedogenesis processes (the evolution and functioning of soils), like interpreting its environmental history and predicting consequences of changes in land use, while agronomists understand that the cultivated soil is a complex medium, often resulting from several thousands of years of evolution. They understand that the current balance is fragile and that only a thorough knowledge of its history makes it possible toE..... Pedology (also known as soil science) can be subdivided into specific fields of study, including: Soil Classification and Interpretation (Soil Landscape Processes); Soil Chemistry and Fertility; Soil Management (Land Resource Management); Environment: Soil and Sediment.

A. Complete the text by matching the removed parts 1-5 with the gaps A-E. /2.5

1. ensure its sustainable use.
2. On the other hand, pedologists and geologists ...
3. During its formation and genesis ...
4. The study of soils ...
5. the most suitable method for excavating underground tunnels.

B. Choose the letter corresponding to the right answer according to the passage above. /7.5

1. What does pedology focus on, according to its narrow definition?
 - a) The history of agricultural practices

- b) The physical and chemical composition of soils
 - c) Soil technology and manipulation
 - d) The agronomic uses of soil properties
2. Which term refers to the study of soils' applications in supporting structures and highways?
- a) Pedogenesis
 - b) Edaphology
 - c) Soil mechanics
 - d) Soil morphology
3. According to the passage, which of the following is *not* a method used in examining soil?
- a) Seismic testing
 - b) Measuring electrical resistance
 - c) Geothermal imaging
 - d) Boring and trench-digging
4. Which aspect of soil is *not* mentioned as interacting within the pedosphere?
- a) Micro-organisms
 - b) Temperature
 - c) Erosion rates
 - d) Climate elements
5. Why does the author highlight the integration of pedology and agronomy in recent times?
- a) To show advancements in soil technology
 - b) To emphasize the need for interdisciplinary collaboration
 - c) To argue for separating pedology from agronomy
 - d) To question the relevance of soil study
6. Why does the passage describe soil as a "zone of numerous interactions"?
- a) To argue for its complex ecosystem dynamics
 - b) To promote its role in road construction
 - c) To discuss its non-biological characteristics
 - d) To justify its use as a natural resource
7. Why does the author discuss the fragility of the soil's balance?
- a) To warn about environmental degradation
 - b) To highlight the importance of historical knowledge
 - c) To show soil's resistance to environmental changes
 - d) To advocate for soil preservation technology
8. Which statement best paraphrases, "Soil users showed little concern for the dynamics of soil initially"?

- a) Agronomists previously ignored soil's interactions.
 - b) Pedologists originally dismissed agronomy.
 - c) Soil users fully understood soil complexity.
 - d) Agronomists appreciated soil's chemical structure.
9. The phrase "pedogenesis processes" refers to:
- a) The erosion and weathering of rocks.
 - b) The history and management of soils.
 - c) The evolution and functioning of soils.
 - d) The interaction of climate with organisms.
10. Which sentence reflects the same idea as, "Soil classification helps interpret environmental history"?
- e) Soil layers provide clues about past environments.
 - f) Soil profiles determine which plants grow well.
 - g) Soil characteristics can forecast future erosion.
 - h) Environmental history is recorded in biological residues.
10. Based on the passage, why might pedology be significant for future environmental challenges?
- a) It offers a basis for soil-based genetic engineering.
 - b) It helps predict impacts of land use changes.
 - c) It ensures maximum agronomic productivity.
 - d) It prevents natural soil erosion worldwide.
11. What can be inferred about pedologists' approach to studying soil in earlier periods?
- a) It centered on soil's physical strength and durability.
 - b) It focused primarily on the agronomic productivity of soil.
 - c) It aimed to connect soil to landscape and history.
 - d) It dismissed agronomic applications altogether.
12. What is the main topic of the passage?
- a) The practical uses of soil in agriculture and construction
 - b) The evolution of soil science and its applications
 - c) The differences between pedology and edaphology
 - d) The study of soil horizons in relation to climate
13. What is the primary aim of the passage?
- a) To describe the history and focus areas of pedology
 - b) To discuss technological advances in soil studies
 - c) To argue for a broader definition of soil science
 - d) To highlight agronomists' mismanagement of soils
14. How is the passage organized?
- a) By contrasting two definitions of pedology
 - b) By introducing a concept and discussing its applications

- c) By listing methods used to examine soil characteristics
d) By describing historical development before focusing on uses

Vocabulary/5 Marks

Match each of the words in column A to its corresponding synonym in column B

A	B
1. complexity	a. problem
2. include	b. development
3. glacial	c. firmness
4. occurrence	d. squeeze
5. formation	e. arrangement
6. agriculture	f. ditch
7. sounding	g. land
8. configuration	h. stability
9. trench	i. growth
10. stability	j. tilling
	k. append
	l. incident
	m. resonate

1. ____ 2. ____ 3. ____ 4. ____ 5. ____ 6. ____ 7. ____ 8. ____ 9. ____ 10. ____

SECTION TWO: THEORY/ 20 MARKS

Choose the letter corresponding to the right answer

- Skimming is a sub-skill of -----.
a) listening
b) speaking
c) reading
d) writing
- When we read to get the general idea or gist of a text, this is -----.
a) Skimming
b) Scanning
c) predicting
d) extrapolation
- Reading to find specific facts is:
a) Scanning
b) Skimming

c) Decoding

d) Extensive

4. Scanning is a reading activity which helps learners to -----

a) draw out the desired information

b) enrich their vocabulary

c) develop competence in linguistic items

d) know meaning of words

5. Which listening style is characterized by listening to enjoy or appreciate the speaker's message, such as in music or storytelling?

a) Empathic listening

b) Evaluative listening

c) Appreciative listening

d) Comprehensive listening

6. What is one effective technique to avoid interrupting a speaker when you have something to say?

a) Raise your hand to get the speaker's attention

b) Write down your thoughts and wait for your turn to speak

c) Speak louder to assert yourself in the conversation

d) Ignore the speaker and start talking immediately

7. What are interpersonal skills?

a) Skills used in written communication

b) Skills used in nonverbal communication

c) Skills used in one-on-one interactions

d) Skills used in public speaking

8. What is an essential element of effective public speaking?

a) Speaking as fast as possible

b) Using complex vocabulary

c) Maintaining eye contact with the audience

d) Avoiding visual aids

9. What does emotional intelligence involve?

a) Ignoring the emotions of others

b) Recognizing and managing one's own emotions

- c) Focusing solely on logical reasoning
- d) Avoiding personal connections with others

10. What is the purpose of feedback in communication?

- a) To criticize and belittle others
- b) To express personal opinions
- c) To evaluate and improve communication
- d) To dominate the conversation

11. Why is cultural awareness important in communication?

- a) To impose one's cultural values on others
- b) To avoid any communication with people from different cultures
- c) To understand and respect cultural differences
- d) To promote misunderstandings and conflicts

12. Which communication skill involves using appropriate vocabulary and tone?

- a) Verbal communication
- b) Nonverbal communication
- c) Listening skills
- d) Written communication

13. What is the ability to understand and share the perspective of others called?

- a) Empathy
- b) Assertiveness
- c) Negotiation
- d) Emotional intelligence

Answer: a) Empathy

14. Which of the following is NOT a key element of a strong debate case?

- a) Clear and concise arguments
- b) Emotional appeals without factual support
- c) Evidence and logical reasoning
- d) Rebuttal to opposing arguments

15. In the debate, it is ok to yell at the other team and make fun of them when they are speaking.

- a) True
- b) False

16. To be a great debater, it is important to -----.

- a) Speak clearly, loudly, and with good emphasis

b) Think about what the other team say against your argument

c) Learn a lot about your topic by researching it.

d) All of the above.

17. The definition of debate is -----.

a) An argument with your friends.

b) An organized public argument on a specific topic.

c) A public argument on many topics.

d) Apple of my eye.

18. The debate is done in front of an audience.

a) True

b) False

19. An E-mail account includes a storage area, often called a

a) Attachment

b) Hyperlink

c) Mailbox

d) IP address

20. E-mail addresses separate the user name from the ISP using the ----- symbol.

a) &

b) @

c) %

d) :

SECTION 3: WRITING (15 MARKS)

Write a well-developed essay of not more than 5 paragraphs on one of the topics below:

1. The role of engineering technology in the improvement of people's lives

2. The role of engineering in developing renewable energy systems

3. The role of engineering in addressing global challenges like climate change

- b) Think about what the other team say against your argument
- c) Learn a lot about your topic by researching it.
- d) All of the above.

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