



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF HEALTH AND APPLIED SCIENCES

DEPARTMENT OF NATURAL AND APPLIED SCIENCES

QUALIFICATION: BACHELOR OF SCIENCE	
QUALIFICATION CODE: 07BOSC	LEVEL: 5
COURSE NAME: GENERAL BIOLOGY 1B	COURSE CODE: GNB502S
SESSION: NOVEMBER 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
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INSTRUCTIONS	
<ol style="list-style-type: none">1. Write clearly and neatly2. Number the answers clearly3. All written work MUST be done in blue or black ink4. No books, notes and other additional aids are allowed5. Mark all answers clearly with their respective question numbers	

PERMISSIBLE MATERIALS

None

THIS QUESTION PAPER CONSISTS OF 4 PAGES

(Including this front page)

QUESTION 1:

Multiple choices

[3]

- 1.1 Cardiac muscle is _____. (1)
a) striated
b) involuntary
c) smooth
d) both a and b are correct
- 1.2 The conducting parenchyma cell of angiosperm phloem is called a _____. (1)
(a) sieve tube member
(b) tracheid
(c) stoma
(d) vessels
- 1.3 At lunch George ate a mushroom, some truffles, a little Camembert cheese, and a bit of moldy bread. Which of the following groups was *not* represented in the meal? (1)
(a) Basidiomycota
(b) Ascomycota
(c) Chytrids
(d) Zygomycota

QUESTION 2:

Fill in the blanks

[5]

- 2.1 The haploid form of a plant is known as the _____ generation. (1)
- 2.2 _____ gland produce epinephrine. (1)
- 2.3 The two simple tissues that are specialized for support are _____ and _____. (1)
- 2.4 Fibroblasts are a type of _____ connective tissue. (1)
- 2.5 The pancreas produces two important hormones, _____ and _____. (1)

QUESTION 3:

Define the following terms

[4]

- 3.1 Kinetoplast (1)
- 3.2 Coenocyte (1)

3.3 Fiddle head (1)

3.4 Insulin (1)

QUESTION 4:

Distinguish between the pairs of the following terms. [10]

4.1 Phylum; division (2)

4.2 Halophile; thermoacidophile (2)

4.3 Plasmodial slime mold; Cellular slime mold (2)

4.4 Lichen, mycorrhiza (2)

4.5 Endocrine; exocrine gland (2)

QUESTION 5:

One sentences answers [2]

5.1 What is a prophage? (1)

5.2 What is the basis of classification of algae? (1)

QUESTION 6:

Short questions [5]

6.1 List two plant-like and two animal-like characteristics of euglenoids. (2)

6.2 Name the two posterior-pituitary hormones and describe their actions and sites of production. (3)

QUESTION 7:

Longer questions [34]

7.1 List the steps in a conjugation reproduction. Draw diagrams to illustrate your answer. (4)

7.2 Name the five important plant hormones and its main function. (5)

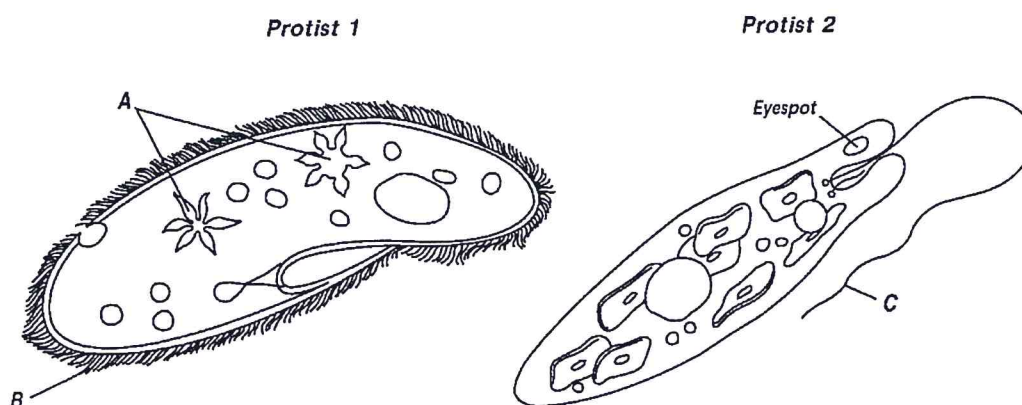
7.3 Describe the fluid connective tissue and its function. (5)

7.4 Name the division of gymnosperm and compare the leaf structure and the places where they grow. (6)

- 7.5 What is the similarity and difference between slime mold and fungi? (6)
- 7.6 Describe the common shapes and the grouping of prokaryotic cells with a diagram. (8)

QUESTION 8: [10]
Structures and functions

Use the diagram to answer the following questions.



- 8.1 Identify the two protists shown in the diagram, and state whether each protist is animal-like, fungus-like, or plantlike. (2)
- 8.2 Identify the structures labeled A in the diagram and describe their functions. (2)
- 8.3 Identify the structures labeled B in the diagram and describe their functions. (2)
- 8.4 Identify the structure labeled C in the diagram and describe its function. (1)
- 8.5 What is the function of the eyespot in Protist 2? (2)
- 8.6 State whether each protist shown in the diagram is a heterotroph, an autotroph, or both. (1)

QUESTION 9: [27]
Essay question

- 9.1 Describe the discovery and general characteristics of viruses. (13)
- 9.2 Using a well labelled diagram briefly ascribe/outline the main stages of embryo development. (14)

THE END