
	INDIAN SCHOOL AL WADI AL KABIR	
Class: XI	Department: SCIENCE 2022 -2023 SUBJECT: BIOLOGY	Date:13/09/22
Worksheet no. 4 WITH ANSWERS	CHAPTER: BIOLOGICAL CLASSIFICATION	Note: A4 FILE FORMAT
NAME OF THE STUDENT	CLASS & SEC:	ROLL NO.

A CASE STUDY-

Read the passage given below and answer the questions that follows.

R.H. Whittaker proposed a Five Kingdom Classification. The kingdoms defined by him were named Monera, Protista, Fungi, Plantae and Animalia. The main criteria for classification used by him include cell structure, body organisation, mode of nutrition, reproduction and phylogenetic relationships.

Over time, an attempt has been made to evolve a classification system which reflects not only the morphological, physiological and reproductive similarities, but is also phylogenetic i.e. it is based on evolutionary relationships.

1. Who proposed the five-kingdom classification?

- a) Aristotle
- b) R.H. Whittaker
- c) Linnaeus
- d) None of these

2. All bacteria are included in

- a) Monera
- b) Protista
- c) Plantae
- d) Animalia.

3. In recent years classification has evolved and based on

- a) Morphological similarities
- b) Physiological similarities
- c) Evolutionary relationships.
- d) Reproductive similarities

4. Smallest taxon of classification is _____.

- a) Kingdom
- b) Family
- c) Variety
- d) Species

5. **Assertion:** Bacteria is grouped under Kingdom Monera.

Reason: All prokaryotic organisms were grouped together under Kingdom Monera

- a. Both assertion and reason are true, and the reason is the correct explanation of the assertion.
- b. Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- c. Assertion is true but reason is false.
- d. Both assertion and reason are false

MCQs (Objective type Questions)

1. Identify the kingdom of the given organism.



- a) Plantae
- b) Monera
- c) Fungi
- d) Protista

2. A common Characteristic of Archaeobacteria

- a) Structure of cell membrane
- b) Structure of cell wall
- c) Has fatty acid synthetase
- d) Structure of flagellin protein

3. Another Name of Cyanobacteria

- a) Blue-green algae

- b) Golden algae
- c) Protists
- d) Slime moulds

4.Assertion: The cell walls of fungi are composed of chitin and polysaccharides.

Reason: Most fungi are heterotrophic and absorb soluble organic matter from dead substrates and hence are called saprophytes.

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- b. Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- c. Assertion is true but reason is false.
- d. Both assertion and reason are false

5.Paramecium is an example of a

- a) Bacterium
- b) Protozoan
- c) Virus
- d) Annelid

6.Name of Agarics' Fruiting Body

- a) Fairy rings
- b) Cleistothecium
- c) Basidiocarp
- d) Ascocarp

7.The bacteria given below can be classified as -----on the basis of its structure.



- a) Cocci
- b) Bacilli
- c) Vibrio
- d) Spirilla

8.Assertion: Ciliated protozoans are aquatic, actively moving organisms because of the presence of thousands of cilia

Reason: The coordinated movement of rows of cilia causes the water laden with food to be steered into the gullet

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- b. Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- c. Assertion is true but reason is false.
- d. Both assertion and reason are false

9. Diatoms Do Not Decay Quickly Because

- a) They are Chitinous
- b) It has siliceous walls
- c) Diatoms contain saline soil
- d) Their body is impervious to water

10. Which of the following organisms can be found in extreme saline conditions?

- a) Eubacteria
- b) Archaeobacteria
- c) Cyanobacteria
- d) Mycobacteria

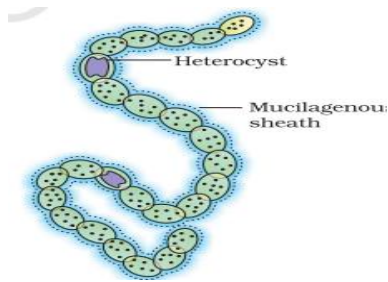
11. What is a taxon?

- a) A group of related families
- b) A type of living organisms
- c) A group of related species
- d) A group of any ranking

12. Genes of Tobacco Mosaic Virus are _____.

- a) Double-stranded RNA
- b) Single-stranded RNA
- c) Double-stranded DNA
- d) Proteinaceous

13. The heterocyst of Nostoc given in the figure helps it to



- a) Photosynthesize
- b) Recycling iron and Sulphur
- c) Fixing atmospheric nitrogen
- d) Exchange of respiratory gases

14.Assertion: Chemosynthetic autotrophic bacteria use light energy for their ATP production.

Reason: They play do not play any role in recycling nutrients like nitrogen, phosphorous, iron and sulphur

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- b. Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- c. Assertion is true but reason is false.
- d. Both assertion and reason are false

2 marks questions

- 1.What does the terms Algal bloom and Red tides signify?
- 2.How are Viroid's different from Viruses.
3. State the economic importance of:
 - a) Heterotrophic bacteria
 - b) Archaeobacteria

3 marks questions

- 1.Describe the cell wall of Diatoms and state their importance.
- 2.What do the terms phycobiont and mycobiont signify.
- 3.Describe the four major groups of the protozoans,
4. Where are slime moulds found, how is the term paramecium related to slime moulds.

5 marks questions

1. With the help of a flow chart classify the Five Kingdom classification.

HINTS

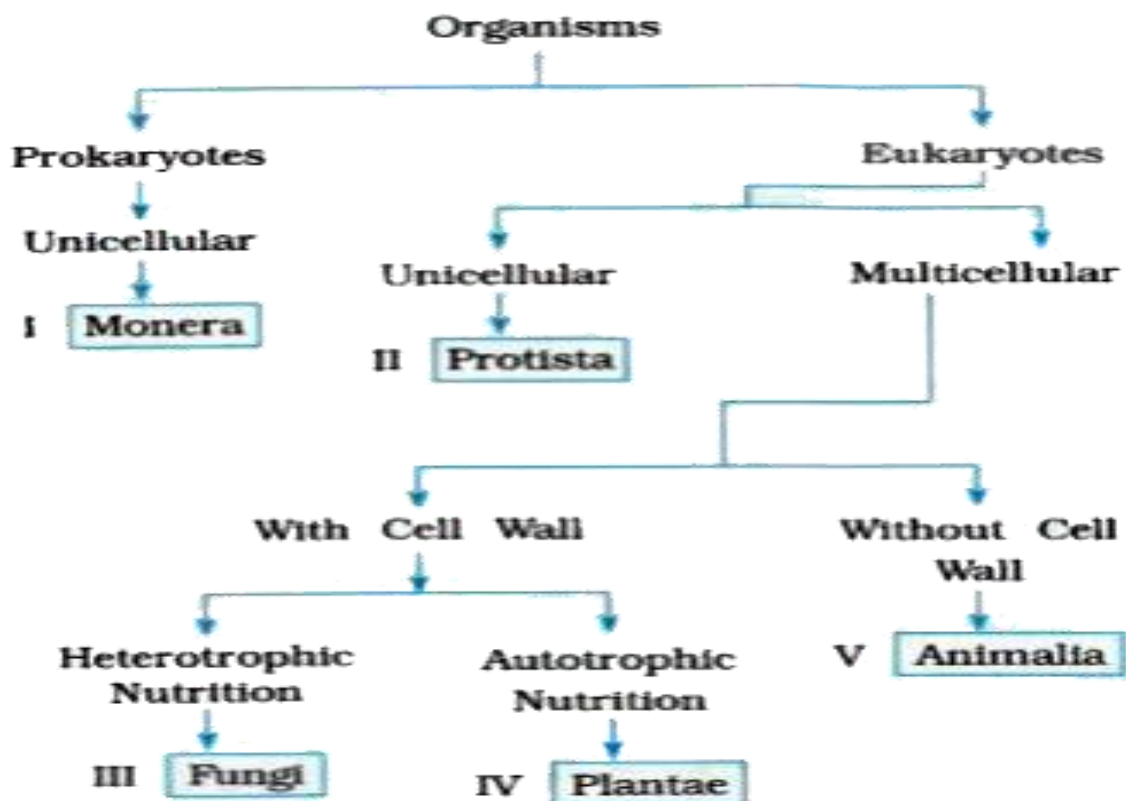
Case Study

1-b	2-a	3-c	4-d	5-a
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Answer Key- MCQS

1-c	2-b	3-a	4-b	5-b	6-c	7-c
8-a	9-b	10-b	11-d	12-b	13-c	14-d

5 marks answer



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