
	INDIAN SCHOOL AL WADI AL KABIR		
Class: XI	Department: SCIENCE 2021 -2022 SUBJECT: BIOLOGY		Date of submission: Second week of September
Worksheet no.7 with answers	CHAPTER: BIOLOGICAL CLASSIFICATION		Note: A4 FILE FORMAT
NAME OF THE STUDENT		CLASS & SEC:	ROLL NO.

Objective type questions (Assertion & Reason)

1.Assertion: fungi grow on a moist bread and rotten fruits.

Reason: The common mushroom you eat and toadstools are also fungi.

- 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

2.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

- 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

3.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

- 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

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.

- 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

A CASE STUDY

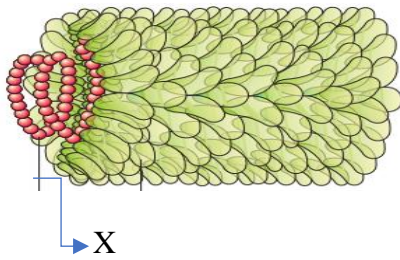
Read the passage given below and answer the questions that follows.

Virus means venom or poisonous fluid. Dmitri Ivanowsky recognised certain microbes as causal organism of the mosaic disease of tobacco. These were found to be smaller than bacteria because they passed through bacteria-proof filters. M.W. Beijerinck demonstrated that the extract of the infected plants of tobacco could cause infection in healthy plants and named the new pathogen “virus” and called the fluid as Contagium vivum fluidum (infectious living fluid). W.M. Stanley showed that viruses could be crystallised and crystals consist largely of proteins. They are inert outside their specific host cell.

Viruses are obligate parasites. In addition to proteins, viruses also contain genetic material, that could be either RNA or DNA. No virus contains both RNA and DNA. A virus is a nucleoprotein and the genetic material is infectious. In general, viruses that infect plants have single stranded RNA and viruses that infect animals have either single or double stranded RNA or double stranded DNA. Bacterial viruses or bacteriophages (viruses that infect the bacteria) are usually double stranded DNA viruses

The protein coat called capsid made of small subunits called capsomeres, protects the nucleic acid. These capsomeres are arranged in helical or polyhedral geometric forms. Viruses cause diseases like mumps, small pox, herpes and influenza. AIDS in humans is also caused by a virus. In plants, the symptoms can be mosaic formation, leaf rolling and curling, yellowing and vein clearing, dwarfing and stunted growth

1. The figure of Tobacco Mosaic Virus is given below, Identify the part marked X.



- a) DNA
- b) RNA
- c) Proteins
- d) Capsid

2. Viruses are obligate parasites because

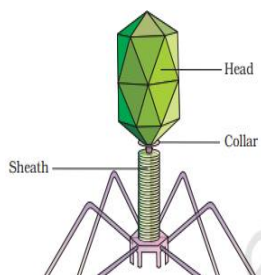
- a) They are saprophytes.
- b) They infect animals and plants
- c) Majority of them live in symbiotic relationship.
- d) They cannot survive independently of a host species.

3. **Assertion:** Viruses are not truly living

Reason: Viruses can be crystallised and they are inert outside their specific host cell.

- 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

4. The figure given below is a



- a) HIV
- b) Bacteriophage
- c) Bacteria
- d) Rhino virus

5. A virus is a nucleoprotein and the genetic material is non-infectious

- a) True

b) False

MULTIPLE CHOICE 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. Paramecium is an example of a

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

5. Name of Agaricus's fruiting body

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

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



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

7. Which is Not A Bacterial Disease?

- a. Cholera
- b. Plague
- c. Citrus canker
- d. Mumps

8. Which Is Incorrect for Protista?

- a. Missing membrane-bound organelles
- b. Links with several organisms
- c. This kingdom's boundary is not clear
- d. Some have cilia or flagella

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. Smallest taxon of classification is _____.

- a. Kingdom

- b. Family
- c. Variety
- d. Species

12. Which of the following statements is false about the fungi?

- a. They are eukaryotes
- b. They are heterotrophs
- c. They possess a purely cellulosic cell wall
- d. None of the above

13. Linnaeus evolved a system of nomenclature called _____.

- a. Vernacular
- b. Monomial
- c. Polynomial
- d. Binomial

14. 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

15. Genes of Tobacco Mosaic Virus are _____.

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

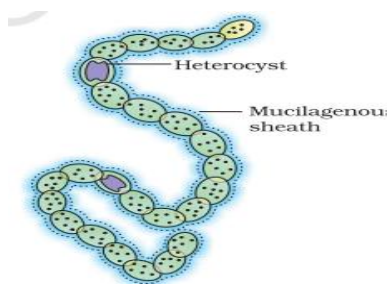
16. Blue-green algae belong to which group?

- a. Protista
- b. Prokaryotes
- c. Fungi
- d. Bryophytes

17. T.O. Diener discovered _____.

- a. Bacteriophage
- b. Infectious protein
- c. Free infectious DNA
- d. Free infectious RNA

18. 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

Answer Key

Assertion and Reason

1-b	2-a	3-d	4-b
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A Case Study

1-b	2-d	3-a	4-b	5-b
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Multiple Choice Questions

1- c	2- a	3- a	4- b	5- c	6- c
7- d	8- a	9- b	10- b	11- d	12- c
13- d	14- d	15- b	16- b	17- d	18- c

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