

## **BIOLOGY**

# **BOOKS - NCERT BIOLOGY (ENGLISH)**

### **BIOLOGICAL CLASSIFICATION**



1. All eukaryotic unicellular organisms belong

to

- A. Monera
- B. Protista
- C. Fungi
- D. Bacteria

### **Answer: B**



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**2.** The five kingdom classification was proposed by

B. C Linnaeus C. A Roxberg D. Virchow **Answer: A Watch Video Solution** 3. Organisms living in salty areas are called as A. methanogens

A. RH Whittaker

- B. halophiles
- C. heliophytes
- D. thermoacidophiles

#### **Answer: B**



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**4.** Naked cytoplasm, multinucleated and saprophytic are the characteristics of

A. Monera

- B. Protista
- C. Fungi
- D. Slime

#### **Answer: D**



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**5.** An association between roots of higher plants and fungi called

A. lichen

- B. fern
- C. mycorrhiza
- D. BGA

#### **Answer: C**



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**6.** A dikaryon is formed when

A. meiosis is arrested

B. the two haploid cells do not fuse immediately

C. cytoplasm does not fuse

D. None of the above

### **Answer: B**



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7. Contagium vivum fluidum was proposed by

A. DJ Jvanowsky

- B. MW Beijernek
- C. Stanley
- D. Robert Hook

#### **Answer: B**



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**8.** Association between mycobiont and phycobiont are found in

A. mycorrhiza

- B. root
- C. lichens
- D. BGA

#### **Answer: C**



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9. Difference between virus and viroid is

A. absence of protein coat in viroid, but

present in virus

B. presence of low molecular weight RNA in virus, but absent in viroid,

C. Both (a) and (b)

D. None of the above

#### **Answer: A**



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**10.** With respect to fungal sexual cycle, choose the correct sequence of events

- A. Karyogamy, Plasmogamy and Meiosis
- B. Meiosis, Plasmogamy and Karyogamy
- C. Plasmogamy, Karyogamy and Meiosis
- D. Meiosis, Karyogamy and Plasmogamy

#### **Answer: C**



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**11.** Viruses are non-cellular organisms but relicate themselves one they infect the host

cell. To which of the following kingdom do viruses belong to ?

- A. Monera
- B. Protista
- C. Fungi
- D. None of the above

### **Answer: D**



- 12. Members of phycomycetes are found in
- (i). Aquatic habitats
- (ii). On decaying wood
- (iii). Moist and damp places
- (iv). As obligate parasites on plants
- Choose from the following options
  - A. (i) and (iv)
  - B. (ii) and (iii)
  - C. All of these
  - D. None of these

#### **Answer: D**



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# **Very Short**

**1.** What is the principle underlying the use of cyanobacteria in agricultural fields for crop improvement?



- **2.** A slide under microscope shows following features:
- (i) Unicellularity
- (ii) Well defined nucleus
- (iii) Biflagellate-one flagellum lying iongitudinally and the other trannsversely what would ou identify if as?



**3.** How is the five kingdom classification advantageous over the two kingdom

classification?



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**4.** Polluted water bodies have usually very high abundance of plants like Nostoc and Oscillitroia. Give reasons.



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**5.** Are chemosynthetic bacteria autotrophic or heterotrophic ?



**6.** The common name of pea is simpler than its botanical (scientific) name Pisum sativum why then is the simpler common name not used instead of the complex scientific/botanical name is biology?



**7.** A virus is considered as a living organism and an obligate parasite when inside a host cell. But virus is not classified along with bacteria or fungi. What are the characters of virus that are similar to non-living objects?



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**8.** In the five kingdom system of Whittaker, how many kingdoms are eukaryotes?



## **Short Answer**

**1.** Diatoms are also called as 'pearls of ocean' why? What is diatomaceous earth?



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2. There is a myth that immediately after heavy rains in forest, mushrooms appear in large number and make a very large ring or circle, which may be several metres in diameter.

These are called as 'fairly ring'. Can you explain this myth of fairy rings in biological terms? Discuss the mycilial structure in Agaricus and its soil borne nature.



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3. Neutrospora an ascomycetes fungus has been used as a biological tool to understand the mechanism of plant genetics much in the same way as Drosophila has been used to

study animal genetics. What makes

Neutrospora so important as a genetic tool?



4. Cyanobacteria and heterotrophic bacteria have been clubbed together in eubacteria of kingdom-Monera as per the 'five kingdom classificatin' even though the two are vastly different from each other. Is this grouping of the two types of taxa in the same kingdom justified ? If so, why ? Discuss the cellular

composition of cyanobacteria and heterotrophic bacteria that make them introduced in eubacteria.



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5. At a stage of their cycle, ascomycetes fungi produce the fruiting bodies like apothecium, perithecium or cleistothecium. How are these three types of fruiting bodies different from each other?

Discuss the type of fruiting bodies formed by

ascomycets fungus and differentiate accordingly on the basic of there structures.



**6.** What observable features in Trypanosoma would make you classify it under kingdom-Protista?

Discuss cell structure of Trypanosoma also discuss its different strain in brief.



**7.** Fungi are cosmopolitan, write the role of fungi in your daily life.

Discuss the role of fungi, with respect to its economical importance to humans.



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# **Long Answer**

**1.** Algae are known to reproduce asexually by variety of spores under different environmental conditions. Name these spores

and the conditions under which they are produced.

Asexual reproduction in algae is very common mean of reproduction.



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2. Apart from chlorophyll, algae have several other pigments in their chloroplast. What pigments are found in blue, green, red and brown algae, that are responsible for their characteristic colours?



3. Make a list of algae and fungi that have commerical value as source of food, chemicals, medicines and fodder.



**4.** Peat' is an important source of domestic fuel in several countries. How is 'peat' formed in nature?



**5.** Biological classification is a dynamic and ever evolving phenomenon which keeps changing with our understanding of life forms. Justify, the statement taking any two examples

Discuss the changes made in studying biological classification from time to time and also enumerate the need for this changes.

