

CBSE TEST PAPER-03
CLASS - XI BIOLOGY (Biological Classification)

General Instruction:

- All questions are compulsory.
 - Question No. 1 to 3 carry one mark each. Question No. 4 to 7 carry two marks each. Question No. 8 to 10 carry three marks each.
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1. Who is known as the “Father of classification”?
2. Name the fungus from which LSD drug is obtained?
3. It is advised to grow one pulse crop in between two main crops in the same field why?
4. Why are some fungi grouped under “fungi imperfecti”?
5. Explain “Numerical taxonomy”.
6. What are the demerits of the five kingdom classification?
7. Give scientific name of species of fungus:-
 - a) Produces a plant disease.
 - b) Is edible
 - c) A source of antibiotic
 - d) Used in manufacture of ethanol.
8. Why is natural system of classification better than artificial system of classification?
9. Give a comparative account of classes of kingdom fungi on the basis of mode of nutrition & mode of reproduction.
10. Write the diagnostic characters of kingdom monera.

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[ANSWERS]

1. Carolus Linnaeus

2. *Claviceps purpurea*. LSD (D-lysergic acid diethylamide-1,5) is a hallucinogen.

3. symbiotic nitrogen fixing bacteria of the genus *Rhizobium* occur in the root nodules of leguminous plants e.g., pulses. these legumes are used in crop rotation and green manuring. plant as well as their seeds are rich in proteins.

4. The fungi commonly reproduce asexually. A part of mycelium is detached by fragmentation into small pieces which grow into new mycelium but in some fungi sexual reproduction also takes place. There is a group of fungi known as deuteromycetes which reproduces completely by asexual spores & not by sexual spores so they are grouped under fungi imperfecti.

5. Numerical taxonomy refers to the use of technological methods in taxonomy. The observable characters are studied such as resemblances and differences through statistical methods. The number & codes are assigned to them for computer like plus (+), minus (-), data not available (0) followed by the computer analysis. The data processed by computer scores the taxa as per number of unit characters possessed by them.

6. drawbacks of five kingdom classification-

i) at the lower level it is not possible to establish phylogenetic system till all the distinct evolutionary tendencies are separated.

ii) in case of algae distinction between unicellular and multicellular organisms is not possible.

iii) viruses have not been included in this system of classification.

iv) archaeobacteria is different from bacteria in terms of structure, composition and physiology.

v) mycoplasmas are different from bacteria where they have been placed along with prokaryotes.

7. i) *Phytophthora infestans* – causes late blight of potato

- ii) *Agaricus campestris* – Edible mushroom.
- iii) *Penicillium notatum* – Produces antibiotic Penicillin
- iv) *Sacchromyces cerevisae* – used in production of ethanol.

8. Natural selection not only brings out natural relationships but also studies evolutionary tendencies & phylogeny with help of all available data including fossils. It is better than artificial system of classification due to following reasons:-

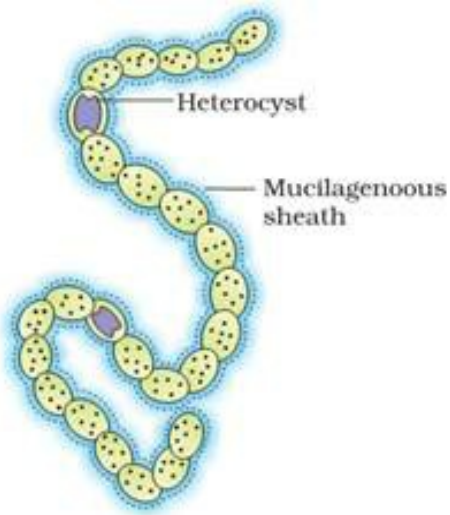
- i) This system brings out natural relationships amongst organisms.
- ii) This places only related organizations of group.
- iii) It avoids coming together of unrelated organisms.
- iv) It shows phylogenetic relationships & origin of different taxa.

9.

PHYCOMYCETES	ASCOMYCETES	BASIDIOMYCETES	DEUTEROMYCETES
i) They are obligate parasites on plants	They are saprophytic or parasitic	They are pasites	They are saprophytes or parasites
ii) The spores are produced in sporangia. Asexual spores are oospores or zygospores formed by union of gametes.	Asexual spores are ascospores. Asci are arranged in ascocarps	Basidia are arranged in basidiocarp.	Asexual spores are conidia
(iii) Sexual spores are zoospores or aplanospores	Sexual spores are ascospores produced in ascus.	Plasogamy occur by fusion of somatic & vegetative cells	Sexual reproduction is absent in them.

10. Monera

- i) It is a kingdom of prokaryotes.



- ii) It includes- bacteria, Cyanobacteria & actinomycetes.
- iii) Microscopic organisms without nucleus but having a cell wall in some
- iv) Nutrition is either heterotrophic or autotrophic.
- v) They are decomposers & mineralizers.
- vi) Some monerans are archaeobacteria .
- vii) eg. spirulina, nostoc, oscillotia, bacillus.