

One mark questions

1) In which kingdom holozoic mode of nutrition is seen?

Ans: Animalia

2) Name a fungus from which an antibiotic is extracted.

Ans: Penicillium

3) Name a unicellular fungus

Ans: Yeast

4) What are bacteriophages?

Ans: Viruses that infect the bacteria

5) The plant disease wheat rust is caused by the fungus named_____

Ans: Puccinia

6) Kingdom of unicellular eukaryote: Protista; Kingdom of unicellular prokaryote: _____

Ans: Monera

7) Name a fungus used to make bread and beer

Ans: Yeast

8) Infectious part of virus is _____

Ans: Genetic material.

Two mark questions

9) List some diseases in humans caused by viruses

Ans: Mumps, small pox, herpes, influenza, AIDS

10) Comment on the asexual reproduction in fungi.

Ans: Asexual reproduction is by spores called conidia or sporangiospores or zoospores.

11) The nature of cell wall of some kingdoms are given below. Assign them to their respective kingdoms (Cell wall with chitin, Cell wall with cellulose, Non cellulosic cell wall with polysaccharide and amino acids, Cell wall absent)

Ans:

Kingdom	Nature of cell wall
Monera	Noncellulosic cell wall with Polysaccharide and amino acid
Fungi	Cell wall with chitin
Plantae	Cell wall with cellulose
Animalia	Cell wall absent

12) What are hyphae? Define coenocytic hyphae.

Ans: The body of the fungus consists of long, slender thread-like structures called as hyphae.

Some hyphae are continuous tubes filled with multinucleated cytoplasm. These are called coenocytic hyphae

13) What are Saprophytes?

Ans: Some organisms like fungi get nutrients by absorbing soluble organic matter from dead substrates.

These organisms are called as saprophytes

14) Mention two symbiotic associations of fungus

- Fungus live in association with algae as Lichens
- Fungus live in association with roots of higher plants as Mycorrhiza

15) Point out the merits of five kingdom classification

- All unicellular prokaryotic organisms were grouped together under Kingdom Monera and unicellular eukaryotic organisms were placed in Kingdom Protista.
- Fungi were placed in a separate kingdom

16) Name a plant disease caused by Virus. List some viral disease symptoms seen in plants.

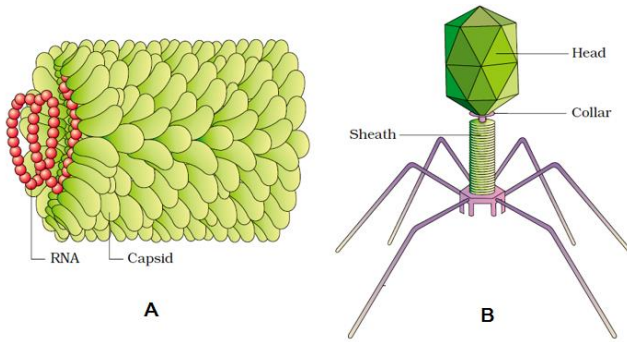
Ans: Mosaic disease of tobacco

-Mosaic formation, leaf rolling and curling, yellowing and vein clearing, dwarfing and stunted growth.

17) Mention two demerits of five kingdom classification

- Unicellular organisms and the multicellular ones are grouped together, for example, *Chlamydomonas* and *Spirogyra* were placed together
- Viruses did not find a place in this classification

18) Identify A & B in the diagram given below



Ans: A- Tobacco mosaic virus B - Bacteriophage

19) What is a capsid? Name its subunits .Mention its function

Ans: The protein coat of the virus is called as capsid. It is made of small subunits called capsomeres. It protects the nucleic acid of the virus.

20) Mention the vegetative reproduction in fungi

Ans: Reproduction in fungi can take place by vegetative means – fragmentation, fission and budding.

21) Assign the name of the scientist given below to their respective works.

(M.W. Beijerinck, Pasteur, Dmitri Ivanowsky, W.M. Stanley)

A	Coined the name virus that means venom - _____
B	Crystallised viruses - _____
C	Named the infectious living fluid from tobacco as <i>Contagium vivum fluidum</i> - _____
D	Recognised certain microbes as causal organism of the mosaic disease of tobacco- _____

Ans: A- Pasteur, B- W.M. Stanley, C- M.W. Beijerinck, D- Dmitri Ivanowsky

Three mark questions

22) All organisms are classified into five kingdoms under five kingdom classification.

a) Who proposed a Five Kingdom Classification?

R.H. Whittaker

b) Mention the five kingdoms

Monera, Protista, Fungi, Plantae and Animalia.

c) What are the main criteria for classification?

Cell structure, Body organisation, Mode of nutrition, Reproduction and Phylogenetic relationships

23) Reproduction in fungi take place by both asexual and sexual methods.

a) Name three sexual spores seen in fungus

Oospores, Ascospores and Basidiospores.

b) Explain the stages of sexual cycle

The sexual cycle involves the following three steps: (i) Fusion of protoplasts between two motile or non-motile gametes called plasmogamy. (ii) Fusion of two nuclei called karyogamy. (iii) Meiosis in zygote resulting in haploid spores.

24) Explain how a dikaryophase is formed within some fungus.

Ans: When a fungus reproduces sexually, two haploid hyphae of compatible mating types come and fuse. In some fungi the fusion of two haploid cells immediately results in diploid cells (2n). But in some fungi the two haploid does not fuse and leading to a condition called a dikaryon and this phase is called dikaryophase.

25) Why viruses did not find a place in classification?

Ans: Since they are not considered truly 'living', because

- They possess a non-cellular organization. They are inactive outside the body of a host. They can be crystallized and precipitated. But,
- They possess genetic material. They can grow and multiply when inside the host. They are obligate parasites and attack specific hosts.