

Topic :- Biological Classification

- 1 **(a)**
The cell wall of fungi is made up of chitin instead of cellulose as found in higher plants.
- 2 **(b)**
St. Anthony's fire disease is caused by ingesting rye flour containing poisons produced by a fungus *Claviceps*.
- 3 **(b)**
During erythrocytic schizogony, micro metacryptomerozoites enter into the blood stream and each enters the red blood corpuscles and assumes rounded disc-like shape with single nucleus.
- 4 **(b)**
Common cold is a viral disease. Influenza virus is rounded or oval in shape, contains RNA in an inner helical core of ribonucleoprotein surrounded by mucoprotein
- 5 **(a)**
OT Diener.
Viroid were discovered by TO Dianer in 1971 as a new infectious agent that was smaller than viruses. Viroids lack capsid and have not proteins associated with them
- 6 **(c)**
Phytoalexins are phenolic compounds, which are not present in healthy plants but are produced upon stimulation of a plant by pathogen or by a mechanical or chemical injury. These are fungitoxic substances and inhibit the growth of microorganisms pathogenic to plants.
- 7 **(a)**
Viruses are obligate parasite. They are inert outside the specific host cell and exists in crystalline forms as demonstrated by WM Stanley

- 8 **(c)**
Pasteurization is a method of partial sterilization which involves heating of milk at 65°C for 30 min or at 72°C for atleast 15sec followed by rapid cooling or at 132°C for at least 1sec. This technique is widely used to kill all pathogenic bacteria in food without achieving complete sterility
- 9 **(d)**
Kingdom-Monera includes all prokaryotes (autotrophic or heterotrophic) *viz*, mycoplasmas, bacteria, Actinomycetes (mycelia bacteria) and photosynthetic cyanobacteria, while all unicellular eukaryotic organisms like flagellates, diatoms, dinoflagellates, slime moulds, sarcodina, etc, are included in kingdom-Protista.
- 10 **(b)**
In 1969, American biologist, Robert H Whittaker proposed five kingdom classification. The main criteria for classification used by him include cell structure, thallus organization, mode of nutrition and reproduction.
- 11 **(c)**
Cyanobacteria may be unicellular, colonial or filamentous. Each filament consists of a sheath of mucilage and one or more cellular strands called trichomes
- 12 **(b)**
Chemosynthetic autotrophic bacteria.
Chemosynthetic autotrophic bacteria oxidises various inorganic substances such as nitrate, nitrites and ammonia and use the released energy for their ATP production. They play a great role in recycling nutrients like nitrogen, phosphorus, iron and sulphur
- 13 **(d)**
The **symbiotic relationship** between fungal hyphae and root of higher plant is known as mycorrhiza.
Endomycorrhiza (also called VAM) occurring in about 80% of vascular plants. In this association the penetrating hyphae form finely branched haustorial branches or coils vesicles.
- 14 **(b)**
Ascomycetes are commonly known as sac fungi, due to their sac-like appendage that holds the spores.
The Ascomycetes are unicellular, *e.g.*, yeast or multicellular, *e.g.*, penicillium
- 15 **(a)**
All protozoans are heterotrophs and live as the predators or parasites

- 16 **(d)**
In *Rhizopus*, sexual reproduction takes place by the fusion of two **multinucleate** gametangia. Occasionally, fusion does not take place between gametangia and these gametangia are surrounded by a many layered wall and then develop into multinucleate **azygospores** (parthenospore).
- 17 **(c)**
Bacteria represent a prokaryotic cell, *i.e.*, lacks nuclear membrane and membrane bound cell organelles like mitochondria, chloroplast, endoplasmic reticulum, Golgi body, etc.
- 18 **(a)**
In his five kingdom classification, Whittaker excluded viruses, viroids and lichens
- 19 **(c)**
Sulphur and phosphorus cycle are sedimentary cycle.
- 20 **(c)**
Sporophyte stage The spore producing phase in the life cycle of a plant that exhibits alternation of generations

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ANSWER-KEY										
Q.	1	2	3	4	5	6	7	8	9	10
A.	a	b	b	b	a	c	a	c	d	b
Q.	11	12	13	14	15	16	17	18	19	20
A.	c	b	d	b	a	d	c	a	c	c

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