

Topic :- Biological Classification

- 1 **(a)**
Incubation period of *Plasmodium vivax* is 10-14 days.

- 2 **(a)**
The plant cell have an eukaryotic structure with prominent **chloroplast** (A) and cell wall is made up of **cellulose** (B)

- 3 **(c)**
Fungi are achlorophyllous, eukaryotic organisms, *i.e.*, they lack **chloroplast** and, hence obtain their food as parasite or saprophyte.

- 4 **(c)**
Viruses are obligate parasites. If a mixture of viruses and bacteria are filtered through a bacterial proof filter, the viruses will pass through into the filtrate in the flask. Virus were found to be smaller than bacteria because they passed through bacteria proof filters. Viruses are made up of proteins and DNA or RNA

- 5 **(c)**
During unfavorable conditions, *Amoeba* reproduced by forming a protective covering or cyst wall around it and multiple fission.

- 6 **(b)**
Lomasomes are the invagination either in the form of an infolded convoluted pocket or pouch enclosing granular or vesicular material. These structures are found in fungal membrane and named lomasomes by **Moore** and **McLear** (1961).

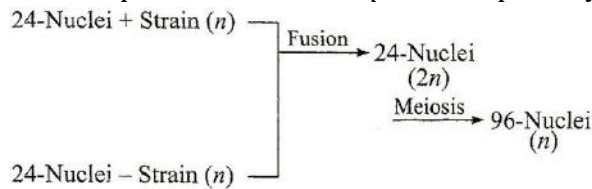
- 7 **(c)**
Viruses are nucleoproteins having one or more nucleic acid molecule, either double stranded or single stranded DNA or RNA, encased in a protective coat of protein or lipoprotein

- 8 **(a)**
TMV (Tobacco Mosaic Virus) contains single stranded RNA.

9 (b)
As F-factor can remain in integrated form with main bacterial genome, so it is an **episome**.

10 (c)
Viruses are so primitive that many scientists consider them to be both living and non-living things. By itself, a virus is a lifeless particle that cannot reproduce. But inside a living cell, a virus becomes an active organism that can multiply hundreds of times

11 (c)
Sexual reproduction in *Rhizopus* takes place by gametangial capulation.



12 (b)
Protista.
The kingdom- Protista was proposed by Ernst Haeckel (1866). Although all single celled eukaryotes are placed in kingdom-Protista yet its boundaries are not well defined

13 (a)
In Deuteromycetes, the mycelium is septate and branched. Coenocytic forms are not known

14 (b)
The kingdom-Monera includes all prokaryotes-mycoplasma, bacteria, Actinomycetes and cyanobacteria or blue-green algae. All unicellular eukaryotic organisms were placed in kingdom-Protista. Kingdom Protista has brought together *Chlamydomonas*, *Chlorella* (earlier placed in algae within plants and both having cell walls) with *Paramecium* and *Amoeba*, which were earlier placed in the animal kingdom, which lacks cell wall. It has put together organisms, which, in earlier classification were placed in different kingdoms. This happened because the criteria for classification changed. This kind of changes will take place in future too depending on the improvement in our understanding of characteristics and evolutionary relationships. Overtime, an attempt has been made to evolve a classification system which reflects not only the morphological, physiological and reproductive similarities, but is also phylogenetic, *i.e.*, is based on evolutionary relationships

15 (a)
The sexual reproduction in fungi completes in three phases
(i) Plasmogamy (ii) Karyogamy (iii) Meiosis
Fusion of protoplasts between two motile or non-motile gametes is called plasmogamy

1. Fusion of two nuclei is called karyogamy
2. Meiosis in zygote results in the formation of haploid spores

- 16 **(b)**
Chemosynthetic autotrophic bacteria oxidises various inorganic substances such as nitrates, nitrites and ammonia and use the released energy for their ATP production. They plays a great role in recycling nutrients like nitrogen, phosphorus, iron and sulphur
- 17 **(d)**
Prokaryotic cell is found in bacteria. These cells lack nucleus and membrane bound cell organelles, which are present in plant cell (eukaryotic type).
- 18 **(d)**
Basidiomycetes include not only the mushrooms, toadstools, puffballs, jelly fungi and shelf fungi, but also many important plant pathogens among the groups called **rusts** and **smuts**. All these fungi bear characteristic fruiting bodies called basidiocarps.
- 19 **(d)**
Ustilago belong to class-Basidiomycetes
- 20 **(c)**
The body of a fungus (except yeast) is made up of number of elongated, tubular filaments known as hyphae. The mass of network of hyphae is called mycelium

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

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