DPP
DAILY PRACTICE PROBLEMS

Class : XIth
Date :

Solutions

Subject : BIOLOGY
DPP No. : 4

Topic :- Biological Classification

1 **(c)**

Two kingdom system of classification was used till very recently. This system did not distinguish between the eukaryotes and prokaryotes. Unicellular and multicellular organisms and photosynthetic (green algae) and non-photosynthetic (fungi) organisms. Classification of organisms into plants and animals was easily done and was easy to understand, inspite, a large number of organisms did not fall into either category. Hence, the two kingdom of classification used for a long time, was found inadequate

2 **(c)**

The slime moulds are included in the division-Myxomycota by mycologist. The spores of slime moulds (acellular) germinate to produce biflagellates warm cells, which function as gametes.

3 **(b)**

Capsid is the protein coat that surrounds the central portion of nucleoid and enzymes. The capsid consists of a specific number and arrangement of small subunits called capsomeres. These capsomeres possess antigenic properties

4 **(d)**

In *Amoeba*, osmoregulation takes place by contractile vacuole by removing extra water from cytoplasm.

5 **(d)**

Yeast (*Saccharomyces*) are unicellular, degenerated, non-mycelial, saprobic fungi possessing no hyphae. But sometimes, chain of buds is formed during rapid growth, which may give false appearance of a mycelium and called as pseudomycelium.

6 **(a)**

Viroids are small, single stranded, circular RNA molecules not enclosed by protein coat. They were discovered by **T O Diener** in 1971. Viroid replication requires host encoded RNA polymerase.

7 **(d)**

All are correct except (d). *Noctiluca* is a colourless dinoflagellate. This alga is famous for

bioluminescence.
Noctiluca (the night light) is a colourless dinoflagelate, which is an important constituent of coastal plankton of both temperature and tropical seas. This alga is famous for bioluminescence as it was the first dinoflagellate where bioluminescence was reported The cellular slime moulds have the characters of both plants and animals. The reproductive phase is plant-like, as the spores have a cell wall composed of cellulose. However, vegetative phase is animal like having no cell wall and feeding like *Amoeba*

8 **(c)**
*Usilago*has haplontic life cycle. In their sexual phase, only zygospore is diploid structure. All others are haploid, such a sexual cycle is termed as haploid or haplontic.

9 **(d)**
In Ascomycetes, the mycelium is branched and septate. Yeast are an exception in that they are basically unicellular. In majority of Ascomycetes, the common mode of asexual reproduction is through the formation of conidia. Conidia are produced exogenously from the tips and sides of hyphae called conidiophores. Sexual spores are called ascospores which are produced endogenously in a sac like asci (sing. ascus). Ascospores are produced internally in each ascus. The asci may occur freely or get aggregated with dikaryotic mycelium to form fructification called ascocarps

10 **(a)**
Gametophyte stage The gamete producing phase in a plant characterised by alternation of generations

11 **(c)**
Ascomycetes belong to kingdom-Fungi.

12 **(c)**
*Parameciu*mis filter feeder, nutrition is holozoic. It feeds on small Protozoa, unicellular plants (algae), diatoms, yeast, etc, and small bits of animals and vegetables.

13 **(a)**
Mycoplasmas are organisms that completely lack cell wall. They are the smallest living cells that can survive without oxygen. Many of them are pathogenic in plants and animals.

14 **(b)**
Bacteriophages is a virus that infects and replicates within bacteria. Bacteriophages are composed of proteins that encapsulate a DNA or RNA genome and may have relatively simple or elaborated structure

15 **(a)**
Kingdom-Protista includes all unicellular eukaryotic organisms like flagellates, diatoms,

dinoflagellates, slime moulds, sarcodina etc.

16 **(b)**

Symbiosis (living together) is a special condition of mutualism, in which both the organisms (forming association) have close, permanent physical association, *e.g.*,**lichens**, in which fungi and algae form a close physical association.

17 **(d)**

As we know that bacterium divided after every 35 minutes through simple mitotic division therefore, number of divisions are $\frac{175}{35} = 5$.Since, one bacterium on division produces two cells so, concentration after 175 minutes will be

$= 10^5 \times (2)^5$

$= 32 \times 10^5$

18 **(c)**

Phycobiont.

A lichen is structurally organized entity, consisting of the permanent association of a fungus and alga. The fungal component of a lichen is called mycobiont and the algal component is called phycobiont

19 **(a)**

Crop	Disease	Pathogen
Brinjal	Root knot	*Meloidogyne rubrilineans*
Sugarcane	Red stripe	*Pseudomonas*
Wheat	Earcockle	*Anguinia*
Pigeon pea	Wilt	*Fusarium exysporum*

20 **(d)**

In Basidiomycetes, the vegetative reproduction takes place by fragmentation. Fragmentation is a form of asexual reproduction, where a new organism grows from a fragment of the parent

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