Short Answer Type Questions-I

Q.1. Why have unicellular algae been not kept in kingdom Protista by Whittaker ?

Ans. A distinction between unicellular and multicellular organisms is not possible in case of algae. It is because of this that unicellular green algae have not been included in kingdom Protista by Whittaker.

Q. 2. Name two features of Prokaryotes.

Ans. (i) Prokaryotes have a naked genetic material without being organised into a nucleus, a single envelope organisation, absence of spindle apparatus, meiosis and sexual reproduction.

(ii) They are mainly unicellular.

Q.3. What is two kingdom classification ? Give its drawback.

Ans. Carolus Linnaeus anciently divided all living organisms into two kingdoms : Plantae and Animalia.

The drawbacks of this classification are:

(i) First formed animals were neither plants nor animals.

(ii) Fungi differ in structure, physiology and reproductive details from plants.

(iii) At lower level of organisation there are several instances where the distinction of plant and animal disappears .

Q. 4. List out the major groups of protozoans. (KVS 2017)

Ans. Major groups of protozoans are:

(i) Amoeboid protozoa

(ii) Flagellated protozoans.

(iii) Ciliated protozoans.

(iv) Sporozoans.

Q. 5. Give the features of kingdom protista.

Ans. The common features of kingdom protista are:

(i) It consists of unicellular or colonial eukaryotic organisms.

(ii) They have diverse modes of nutrition photosynthetic, saprobic, parasitic etc.

(iii) They bear cilia or flagella for locomotion. Some move with the help of pseudopodia.

(iv) The cellular organisation is of two envelope type, *i.e.*, plasma membrane, internal membranes.

(v) Genetic material is organised in the form of nucleus.

(vi) They are either haploid or diploid

Q.6. Write a short note on slime moulds.

Ans. (i) Slime moulds are both plant and animal like.

(ii) They are plant like in the production of spores during reproduction and animal like in the mode of nutrition.

(iii) Their somatic structures consist of wall-less, multinucleate mobile mass of protoplasm called plasmodium.

(iv) They absorb nutrients directly substratum.

(v) The reproductive stage consists of sporangia and spores formed after meiosis.

Q. 7. What is the nature of cell wall in diatoms ?

Ans. (i) In diatoms, the cell walls form two thin overlapping shells which fit together as in a soap box.

(ii) Their walls are embedded with silica making it indestructible.

Q. 8. Write a short note on reproduction of blue-green algae.

Ans. (i) Blue-green algae multiply asexually by binary fission, fragmentation or by the formation of small segments called hormogonia.

(ii) Typical sexual reproduction is absent.

Q. 9. What are cellular slime moulds ?

Ans. (i) In cellular slime moulds *eg.*, Dictyostelium, thousands of individual amoeboid cells, named the myxamoebae, aggregate into slimy mass.

(ii) Nuclei of the multicellular plasmodia are haploid (n). As there is no fusion of individual cells, this aggregated mass of cells is called the pseudoplasmodium.

Q. 10. What are archaebacteria ?

Ans. (i) some bacteria can survive in extreme environmental conditions like high temperature, high concentration, in absence of oxygen or in presence of oxygen in high acidic or alkaline pH. Such bacteria are called archaebacteria.

(ii) Their cell wall consists of non-cellulosic polysaccharide or protein and lacks peptidoglycan. This allows them to survive in extreme conditions.