Semester - III

Subject :- Botany

Course - Major - III

By :- Mr Umesh Kumar, Guest Teacher.

Question :- Describe asexual reproduction in fungi.

Answer :- Asexual Reproduction in Fungi

It occurs through the formation of spores. Spores are single celled propagules which separate from the parent organism and can dispersed. Spores are as followed.

(i) Zoospores :- They are motile spores that occur in some phycomycetes, e.g. Phytophthora, Albugo. The spores are commonly naked. 1-2 flagella are borne anteriorly, posteriorly or laterally. Flagella help the zoospores to swim in aquatic habitat for proper dispersal.

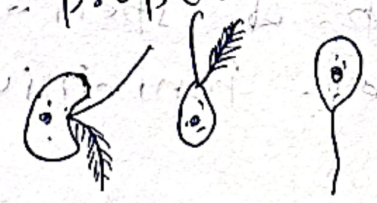

Figure - Zoospores

(ii) Sporangiospores :- They are nonflagellate spores that develop inside sporangia, e.g. Mucor, Rhizopus. Sporangiospores are usually dispersed by air currents. Therefore, they are produced in large numbers.

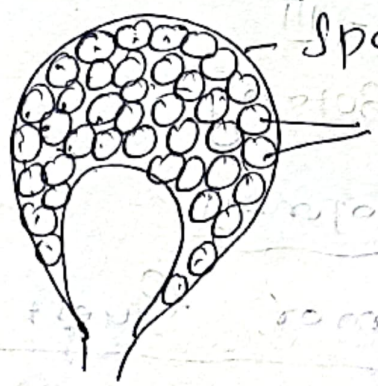

Figure- Sporangium having Sporangiospores.

(III) Chlamydospores :- They are thick walled perennating spores which develop at places along the hyphae by accumulation of protoplasm, rounding off and secretion of thick wall.

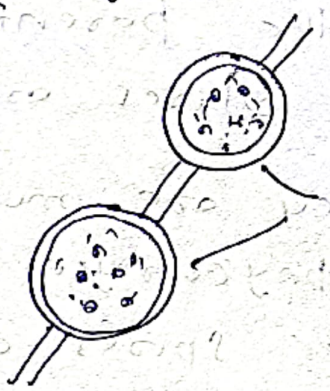

Figure- Chlamydospores

(IV) Conidia :- They are non motile exogenous spores which develop through abstriction at the tip of special hyphae called conidiophores, eg. Penicillium, Aspergillus

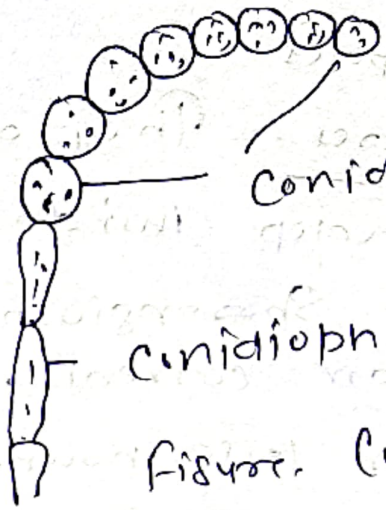

Figure. Conidia present on Conidiophore.

(V) Ascospores :- They are a type of non-motile meiospores which are produced inside special sacs called asci. An ascus often contains 8 ascospores. Mostly found in fungi of Ascomycetes.

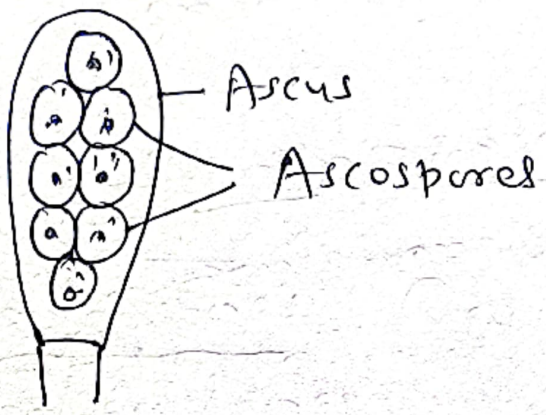

Figure- Ascus with ascospores.

(VI) Binucleate spores :- The spores are meant for multiplying the dikaryotic mycelium. They are therefore, themselves dikaryotic, e.g. aecidiospores, uredospores. Both these types of spores are found in rust, e.g. Puccinia or wheat rust.

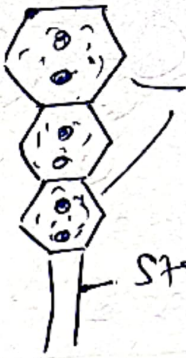

Figure- Aecidiospores

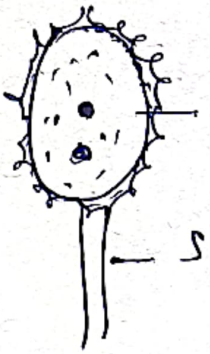

Figure- Uredospore