

EXERCISE # 11**PREPARATION OF TEMPORARY MOUNT**

Temporary mount of diseased specimen is frequently required for microscopic examination. Such mounts can be made as follows:

- Take a clean slide and cover slip.
- Place a drop of water on the slide.
- Now add the specimen which needs to be examined. Care must be taken that the specimen should not be of large size. Size of specimen should be in few millimeters so that it could easily settle down in drop of water.
- In many cases it may be necessary to tease the specimen with dissecting needle so that it spreads uniformly in a thin layer and does not form a clamp which will hamper the observation.
- Then the cover slip is placed on the slide. To avoid the air bubble in mount it is necessary to place the cover slip carefully. First place the one edge of cover slip in contact with water then with the help of dissecting needle gently and slowly lower the cover slip.
- Instead of water, lactophenol can also be used for mount preparation but in this case specimen should be stained with cotton blue.

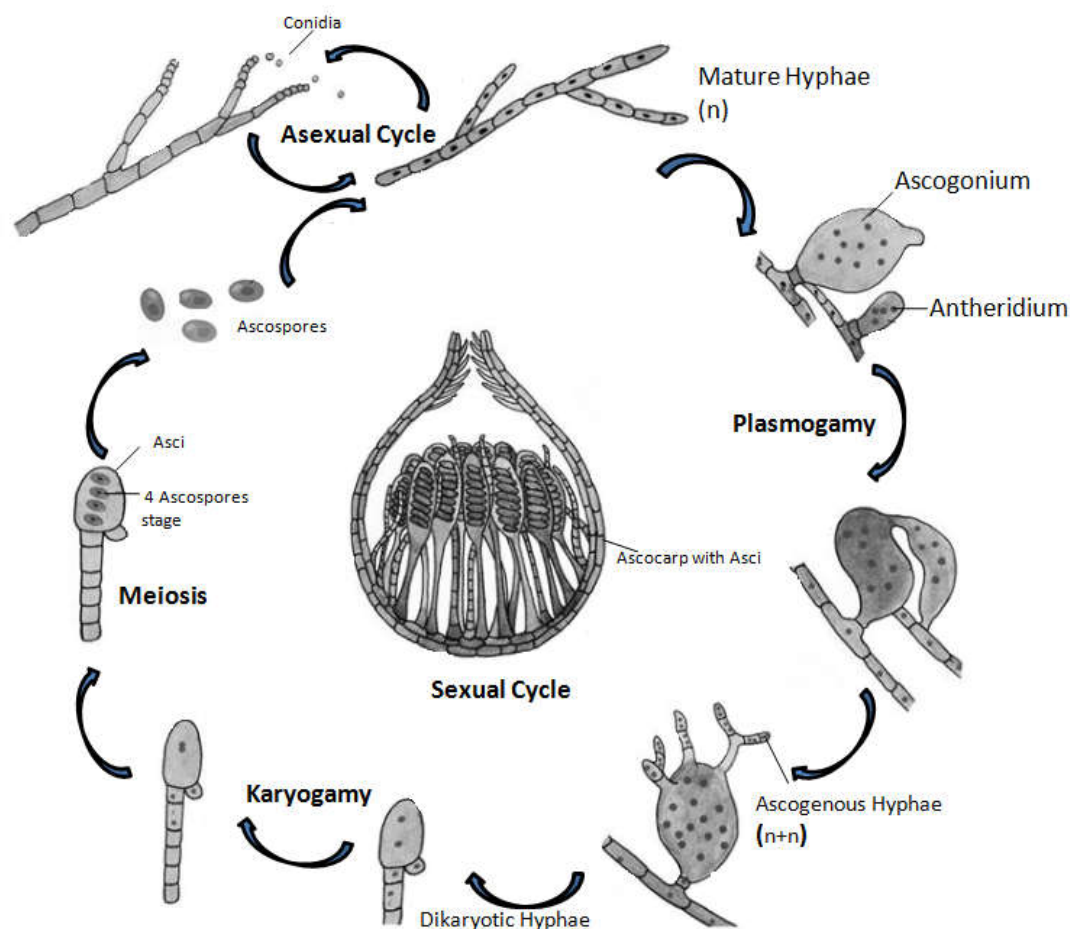
QUESTION # 1 How will you prepare a temporary slide from culture of a fungus contained in a Petri dish?

QUESTION # 2 What precaution is needed to place the cover slip on the slide?

QUESTION # 3 Which magnification is required for initial observations?

EXERCISE # 12-A**INTRODUCTION TO FUNGI****GENERALIZED LIFE CYCLE OF ASCOMYCOTA**

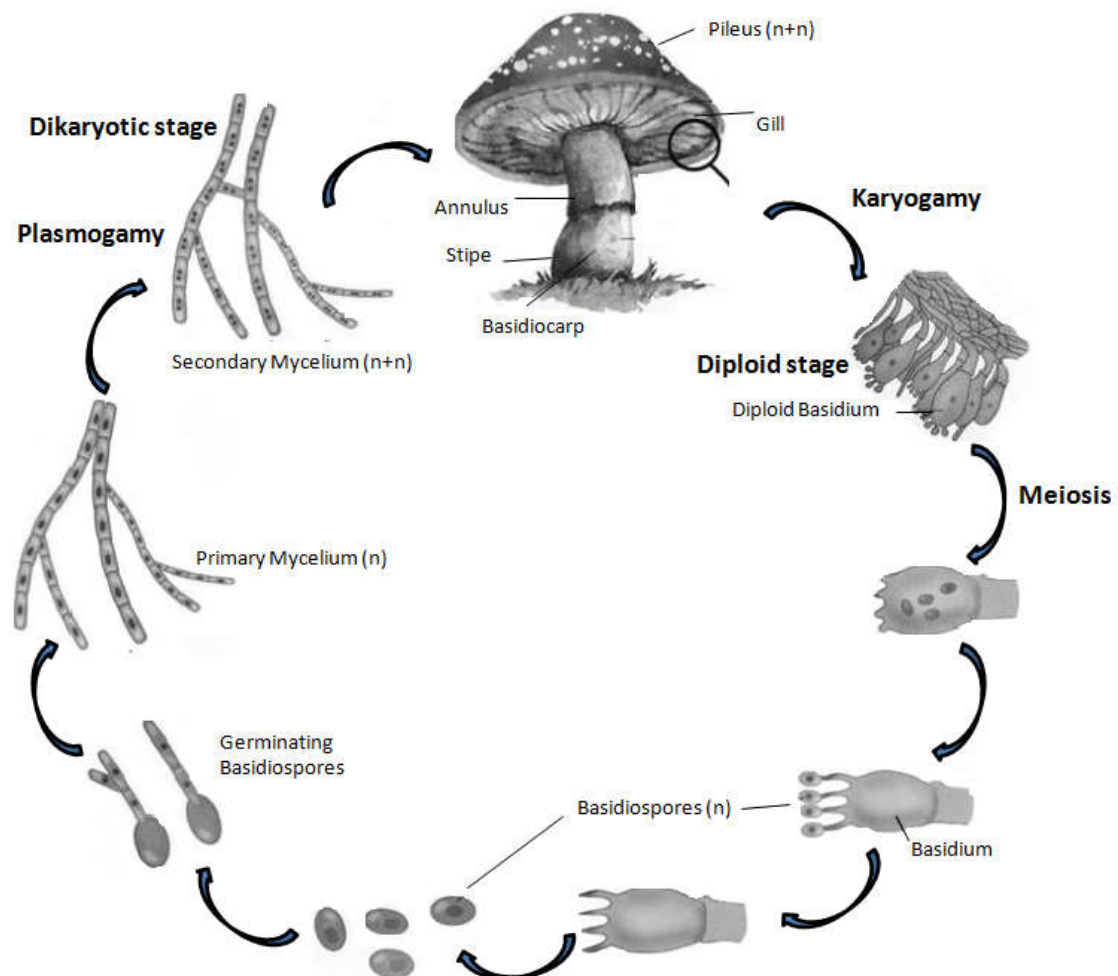
The Ascomycota are a Division/Phylum of the kingdom Fungi, and subkingdom Dikarya. Its members are commonly known as the sac fungi. They are the largest phylum of Fungi, with over 64,000 species. The defining feature of this fungal group is the "ascus", a microscopic sexual structure in which nonmotile spores, called ascospores, are formed. However, some species of the Ascomycota are asexual, meaning that they do not have a sexual cycle and thus do not form asci or ascospores (Wikipedia).



(Edited from Google images)

EXERCISE # 12-B**GENERALIZED LIFE CYCLE OF BASIDIOMYCOTA**

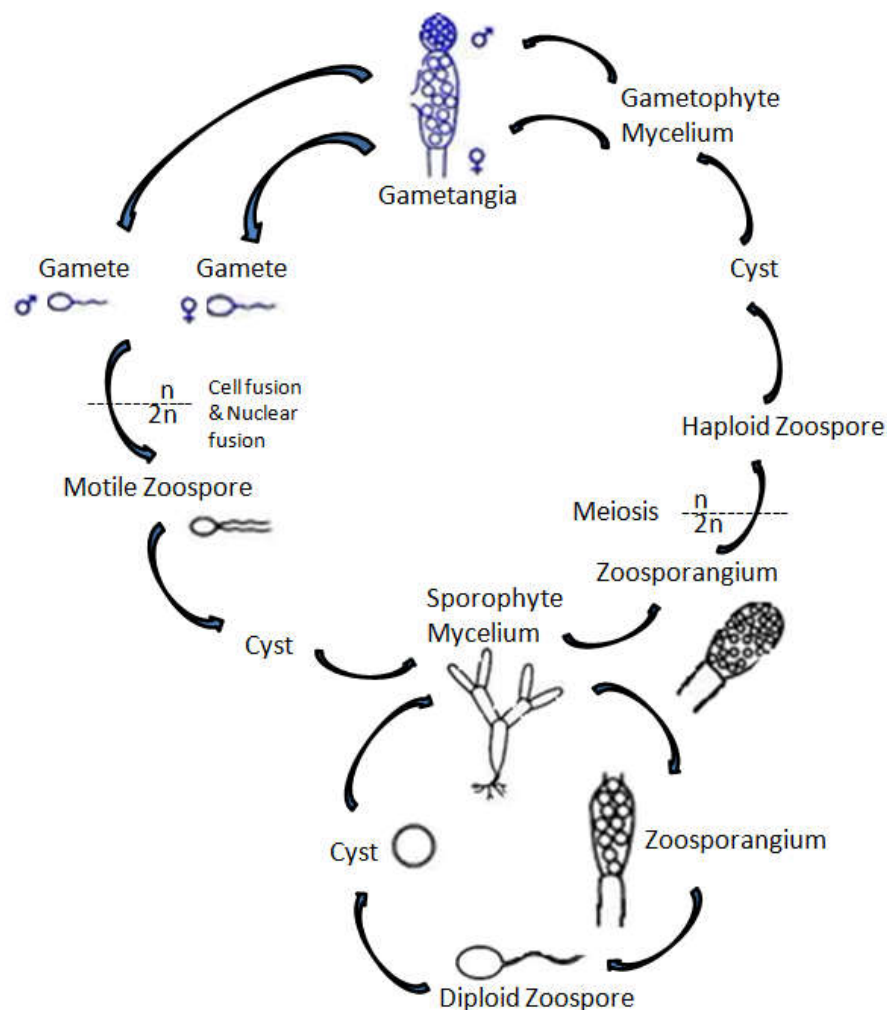
Basidiomycota is one of two large phyla that, together with the Ascomycota, comprise the subkingdom Dikarya (often referred to as the "higher fungi") within the kingdom Fungi. Basically, Basidiomycota are filamentous fungi composed of hyphae (except for yeasts), and reproducing sexually via the formation of specialized club-shaped end cells called basidia that normally bear external meiospores (usually four). These specialized spores are called basidiospores (Wikipedia).



(Edited from Google images)

EXERCISE # 12-C**GENERALIZED LIFE CYCLE OF CHYTRIDIOMYCOTA**

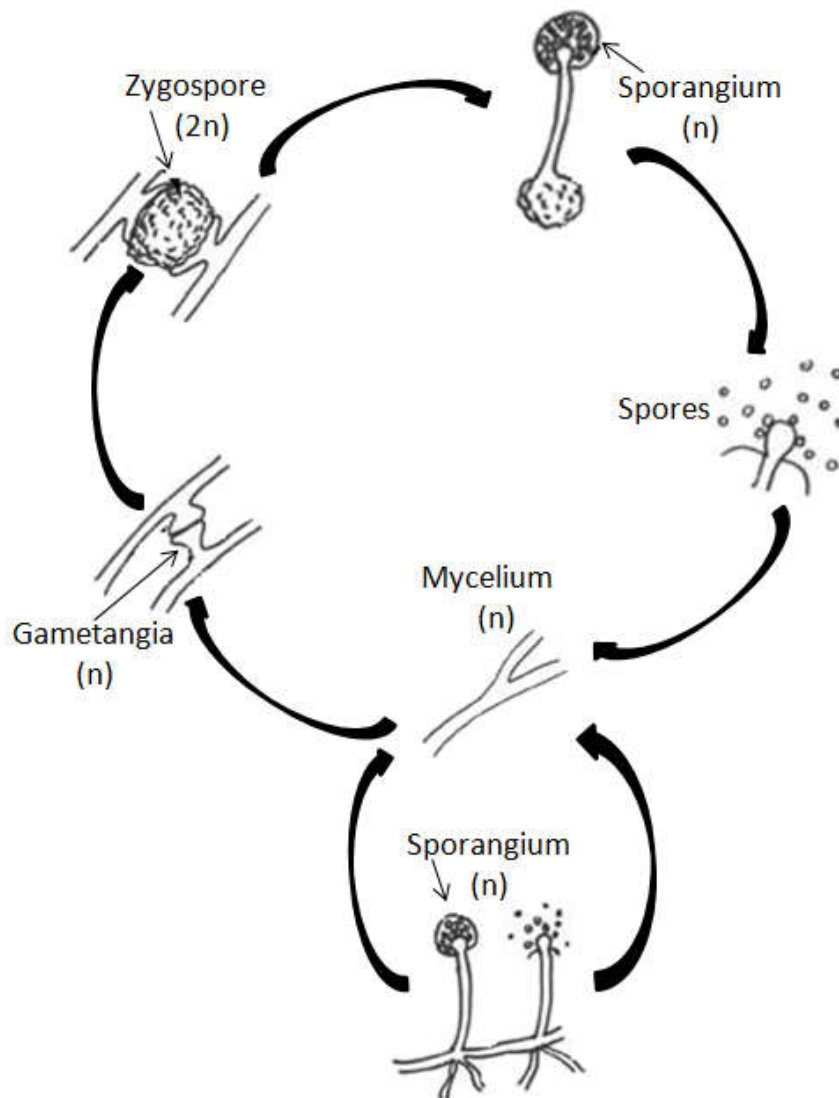
Chytridiomycota is a division of the Fungi kingdom. The name is derived from the Greek *chytridion*, meaning "little pot", describing the structure containing unreleased spores. Many chytrids are aquatic (mostly found in fresh water). There are approximately 1,000 chytrid species, in 127 genera, distributed among 5 orders. The chytrids are the most primitive of the fungi and are mostly saprobic (degrading chitin and keratin). The species has an interesting life cycle. The thallus (body) is attached by rhizoids, and has an erect trunk on which reproductive organs are formed at the end of branches. The life cycle has the ability to change from haploid and diploid generations (Wikipedia).



(Edited from Google images)

EXERCISE # 12-D**GENERALIZED LIFE CYCLE OF ZYGOMYCOTA**

Zygomycota classification makes up only about 1% of true Fungi. There are only about 900 species. The most familiar is the mold that affects strawberries and other fruits. Zygomycota are commonly thought of as bread molds, but there are many species of fungi within this classification that form symbiotic relationships with plants or infect animal hosts. It is believed that zygomycota have zygotic or haplontic life cycles. Zygomycota are able to reproduce both sexually and asexually (Wikipedia).



(Edited from Google images)

EXERCISE # 12-E

TYPES OF FILAMENTOUS FUNGI



Gill Fungus



Bolete Type



Bracket Type



Club Fungus



Stinkhorn



Trumpet Type



Puffball Type



Cup Fungi



Blobs on wood

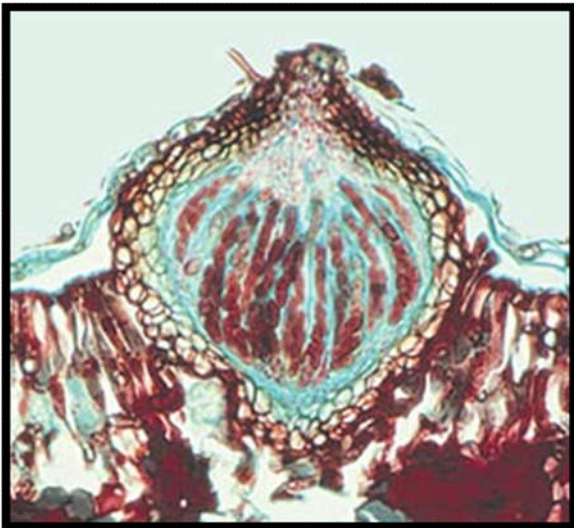
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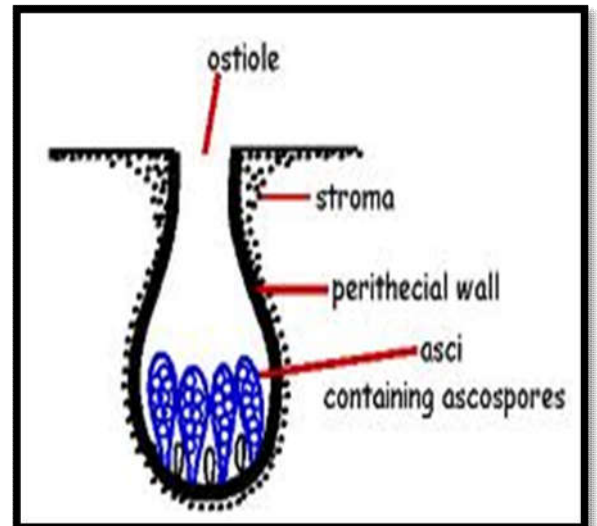
EXERCISE # 12-F

SEXUAL AND ASEXUAL FRUITING BODIES OF ASCOMYCOTA

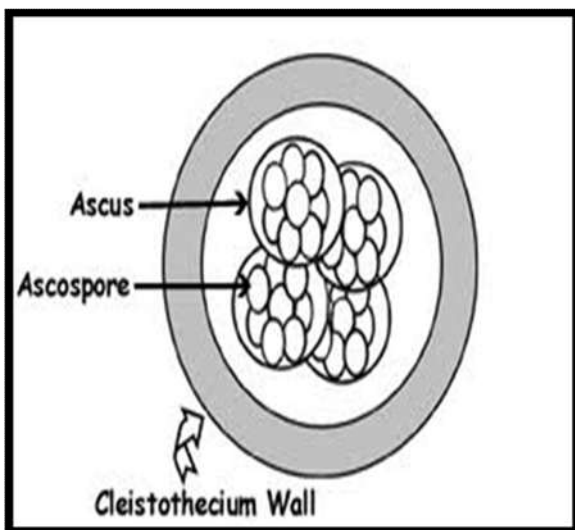
SEXUAL FRUITING BODIES



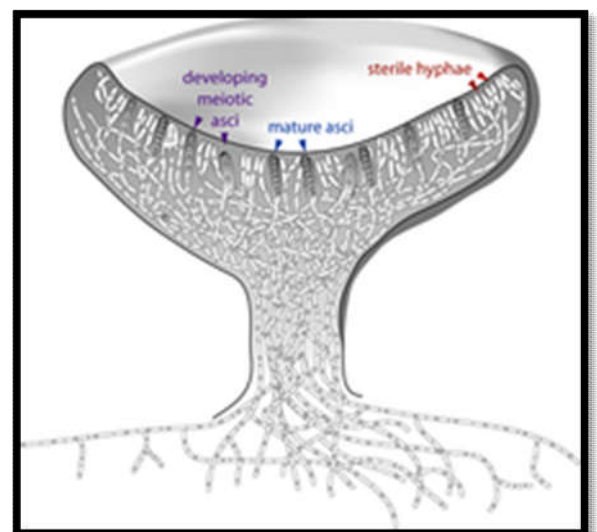
PSEUDOTHECIUM



PERITHECIUM

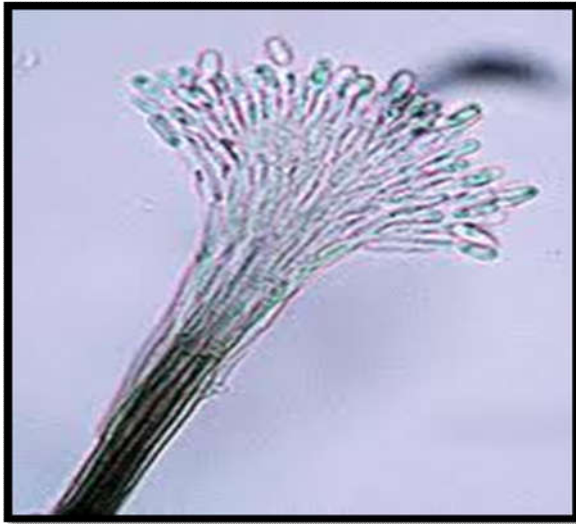


CLEISTOTHECIUM

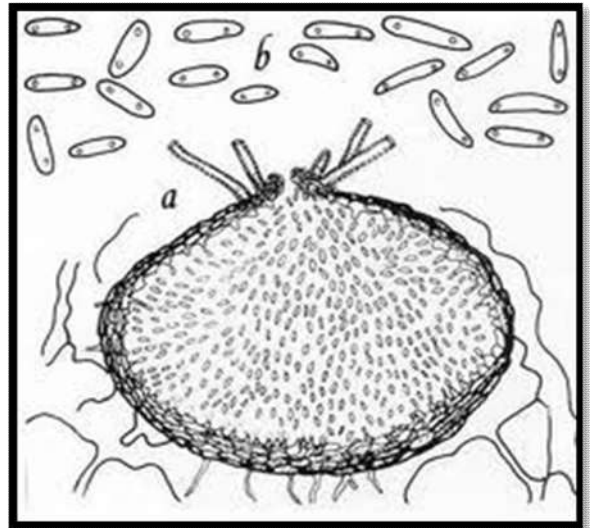


APOTHECIUM

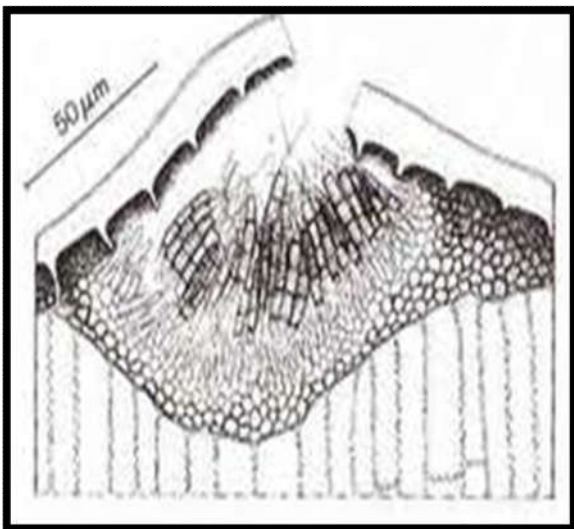
ASEXUAL FRUITING BODIES



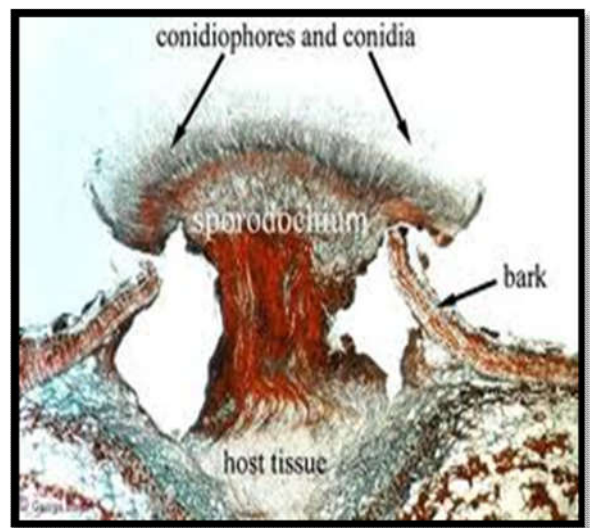
SYNNEMATA



PYCNIDIUM



ACERVULUS



SPORODOCIUM