

生物所 碩士班 植物形態學試題

一、下列二十小題為專有名詞之解釋，請由所附參考專有名詞中，選出適當者，於答案卷上，依小題順序寫出題號及專有名詞。每小題答對得 3 分，答錯倒扣 2 分（60%）

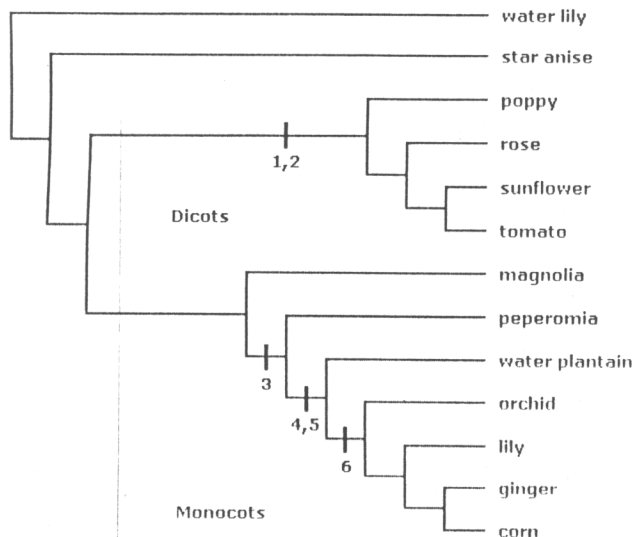
- 1.- A resistant resting spore of Cyanobacteria, equivalent to an endospore of Eubacteria.
- 2.- The diploid cell that is produced by fusion of egg and sperm.
- 3.- The megasporophyll of the Anthophyta; one or more carpels form a pistil.
- 4.- Seed plant sporophytes producing either seeds or pollen, but not both.
- 5.- A stele in which the vascular bundles are arranged in discrete strands around a pith; typical of seed plants.
- 6.- a form of lichen in which the thallus is thin but elevated above the substrate, and somewhat leaf-like in appearance.
- 7.- The megasporangiate part of the flower, consisting of one or more pistils made up of carpels.
- 8.- An ordering of groups in which larger groups encompass sets of smaller groups.
- 9.- The outer multicellular layer of the ovule, which develops into the seed coat.
- 10.- A representation of all the stages of an organisms life from birth through reproduction.
- 11.- A group of undifferentiated cells that gives rise to mature cells and organs as a plant grows; also called a bud.
- 12.- A group of organisms consisting of a common ancestor and all its descendants.
- 13.- in mosses, the lid of meiosporangium.
- 14.- A water-soluble photosynthetic accessory pigment of the Rhodophyta and cyanobacteria.
- 15.- Arrival of the pollen grain at the stigma of flowering plants, or at the micropyle of other seed plants.
- 16.- An underground stem usually horizontally oriented and sometimes specialized for food storage.
- 17.- A plant or microorganism that obtains its nourishment from dead organic matter, such as most fungi and bacteria and a few non-photosynthetic flowering plants.
- 18.- The inert polymerized carotenoid that forms the outer cell wall of meiospores in the Kingdom Plantae.
- 19.- A special tissue surrounding the microsporocytes in the anthers of Anthophyta.
- 20.- a group of organisms in a taxonomic hierarchy that have affinity to one another.

(背面仍有題目,請繼續作答)

參考專有名詞:

Heterotrophic, hierarchy, integument, isogamous, life cycle, lignin, meristem, monophyletic group, ovule, operculum, phycobilin, pollination, rhizome, saprophyte, sporopollenin, akinete, aplanospore, calyx, carpel, dioecious, diploid, enation, eustele, fascicle, foliose, gemma, gynoecium, tapetum, taxon, vascular tissue, zygote.

二、請問下列所繪為何種圖？請問所提供之資料和此圖主要在說明什麼？(20%)



Homologies:

1. Tricolpate pollen
2. Flower parts in 4 or 5
3. Atactostele
4. One cotyledon
5. No secondary growth
6. Flower parts in 3

三、試就下列各分類群植物各舉一種或屬為例，並寫出其屬名之學名和主要傳播方式：

如 Dicots—阿拉伯芥，*Arabidopsis*，種子（20%）

Fungi

Land Plants

Vascular Plants

Fern allies

Seed Plants

"algae"

"molds"

"bryophytes"

"pteridophytes"

"gymnosperms"