**Matching**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. Abnormal seedling
2. Albino
3. Decay
4. Epigeal germination
5. Hypocotyl collar rot
6. Hypogeal germination
 | 1. Imbibition damage
2. Imbibition
3. Infection
4. Morphology
5. Morphophysiological dormancy
6. Necrosis
 | 1. Physical dormancy
2. Physiological dormancy
3. Prechill
4. Pregermination
5. Primary infection
6. Respiration
 | 1. Secondary dormancy
2. Secondary infection
3. Seed deterioration
4. Seed vigor
5. Viable
6. Vigor
 |

\_\_\_\_\_ 1. A physiological breakdown of hypocotyl tissue caused by calcium deficiency.

\_\_\_\_\_ 2. A progressive reduction in performance capabilities, including reductions in the rate and uniformity of germination, reduced tolerance to environmental stresses and inferior seedling emergence and growth, brought about by natural or artificial aging or injury of the seed.

\_\_\_\_\_ 3. A seedling that does not have all the essential structures or is damaged, deformed or decayed to such an extent that normal development is prevented.

\_\_\_\_\_ 4. Crushing of seed tissues by rapid and uneven swelling of surrounding tissues during imbibition.

\_\_\_\_\_ 5. A type of dormancy due to the impermeability of seed or (fruit).

\_\_\_\_\_ 6. A seedling that is white and has no chlorophyll development. It is considered as an abnormal seedling in germination tests conducted in accordance with AOSA rules.

\_\_\_\_\_ 7. Break-down of organic tissue, usually associated with the presence of micro-organisms.

\_\_\_\_\_ 8. A type of seed that contains structures and substances including enzyme systems that give it the capacity to germinate under favorable conditions in the absence of dormancy.

\_\_\_\_\_ 9. A type of germination in which the cotyledon(s) or comparable structure remains below the soil level.

\_\_\_\_\_ 10. A type of germination in which cotyledons are carried above soil level by the elongating hypocotyl.

\_\_\_\_\_ 11. Hydrating seeds using priming protocols to the point of radicle protrusion followed by redrying.

\_\_\_\_\_ 12. Entrance and spread of disease organisms in living material often causing disease symptoms and decay.

\_\_\_\_\_ 13. Dormancy combining embryo immaturity and physiological dormancy.

\_\_\_\_\_ 14. Dead or deteriorating seedling tissue which may have been caused by injury, disease or physiological breakdown.

\_\_\_\_\_ 15. A type of dormancy imposed by certain adverse environmental conditions in previously nondormant seeds, or seeds in which primary dormancy has been broken.

\_\_\_\_\_ 16. The practice of exposing imbibed seeds to cool (5-10°C) temperature conditions for a few days prior to germination at warmer temperatures.

\_\_\_\_\_ 17. The metabolic process by which an organism takes in oxygen and releases carbon dioxide and other products of oxidation.

\_\_\_\_\_ 18. Seed dormancy caused by internal physiological conditions that prevent germination.

\_\_\_\_\_ 18. Water uptake by a seed.

\_\_\_\_\_ 20. Seed properties that determine the potential for rapid, uniform emergence and development or normal seedlings under a wide range of field conditions.

\_\_\_\_\_ 21. Infection caused by disease organisms spreading from other seeds or seedlings or adhering structures, but not from the seed itself.

\_\_\_\_\_ 22. Infection caused by disease organisms present and active in the seed and/or seedling itself.

\_\_\_\_\_ 23. The study of form and structure of an organism.

\_\_\_\_\_ 24. The speed and uniformity of germination, especially under unfavorable conditions.

**Matching**

|  |  |  |
| --- | --- | --- |
| 1. Adventitious root
2. Coleoptile
3. Conducting tissues
4. Epicotyl
5. Hypocotyl
6. Mesocotyl
 | 1. Primary leaf
2. Primary root
3. Root hair
4. Scale leaf
5. Secondary root
6. Seedling
 | 1. Shoot
2. Stem
3. Stubby root
4. Terminal bud
5. Vascular tissues
 |

\_\_\_\_\_ 1. In some highly specialized monocotyledons (e.g. certain Poaceae) the part of the seedling between the scutellar node and the coleoptile.

\_\_\_\_\_ 2. Fine tubular growth from an epidermal cell of a root.

\_\_\_\_\_ 3. Blunt, broken off or dwarfed root.

\_\_\_\_\_ 4. Any root other than primary, seminal, or adventitious roots.

\_\_\_\_\_ 5. A young plant developing from the embryo of a seed.

\_\_\_\_\_ 6. The first leaf or leaves above the cotyledons.

\_\_\_\_\_ 7. The above ground axis of a plant which bears the leaves, flowers, and true buds, as well as anatomically similar portions below ground.

\_\_\_\_\_ 8. Seed conducting tissues.

\_\_\_\_\_ 9. Main root of the seedling, developing from the radicle of the embryo.

\_\_\_\_\_ 10. The part of the embryo or seedling axis between the cotyledons and the radicle.

\_\_\_\_\_ 11. A reduced leaf, usually appressed to the stem.

\_\_\_\_\_ 12. A collective term including all structures above the root in epigeal species and above the cotyledonary node in hypogeal species. In Poaceae, all structures above the scutellar node are included, i.e. the mesocotyl, coleoptile and leaves.

\_\_\_\_\_ 13. The upper portion of the axis of an embryo or seedling above the point where the cotyledon(s), are attached.

\_\_\_\_\_ 14. Tissues that transport water and dissolved minerals from the root to the other plant structures, and foods from where they are manufactured (e.g. leaves to where they are needed for growth or storage.

\_\_\_\_\_ 15. The shoot apex enveloped by several more or less differentiated leaves.

\_\_\_\_\_ 16. The sheath enclosing the terminal bud of the embryo and the developing leaves of the young seedling of the grass family.

\_\_\_\_\_ 17. A root arising from any structure other than another root.