



## Concours ITA session 2016

Composition : **Anglais 3**

Durée : **2 Heures**



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The life cycle of a typical annual plant can be divided into several stages. The first stage is germination. Seeds remain dormant, or in a resting state, if they are kept cool and dry. When the amount of moisture and the temperature level are right, the seeds germinate and start growing.

Certain conditions are necessary for this to happen. An essential condition is that the seeds must be alive. Sometimes seeds are dried at a temperature which is too high. This has two effects: the water content in the seed is reduced too much, and certain essential proteins are destroyed. As a result, the seeds die (...).

Other conditions for germination concern the amount of moisture in the soil. If dry seeds are planted in a dry soil, they will not germinate until it rains. On the other hand, if there is too much water in the soil, the seeds will not germinate either. This is because wet soils remain cold for a longer period of time than drier, well-drained soils. If the soil is too cold germination will not occur. An additional reason for seeds not germinating is that badly drained soils may lack sufficient oxygen. Dormant seeds require very little oxygen in order to stay alive, but when they start to germinate they require more (...).

In the first stage of germination the primary root, or radicle, emerges. Then the stem pushes its way upward until it appears above the surface of the soil. At the same time the root system grows downward, and begins to spread through the soil. In the early stages of development the seedling depends entirely on the foodstore in the seed but as soon as the first leaves are produced, it is able to manufacture food for itself. The seedling begins photosynthesis (...).

Next, the plant enters the stage of rapid growth. In this stage of the life cycle, the plant begins to grow to its full size. When it is mature enough, it flowers, and when this happens pollination and fertilization are ready to take place. In the process of pollination the pollen is carried by wind or insects from the stamens to the stigma of the carpel. It germinates on the stigma and grows down the style into the ovary, where fertilization takes place.

Adapted from *English in Focus: English in Agriculture*, Alan Mountford, London, 5<sup>th</sup> Edition, 1985, pp. 12-13.

### I- COMPREHENSION CHECK

A- Answer by True (T) or False (F) according to your understanding of the above text. Answer like: 9-T (4.5 marks)

- 1- If seeds are dried at a too high temperature they will not die.
- 2- Dormant seeds cannot stay alive in a badly drained soil.
- 3- The seed does not contain enough food to nourish the seedling until the first leaves are produced.
- 4- When the temperature level is right a seed will germinate.
- 5- The temperature of a wet soil is lower than that of a well-drained soil.
- 6- The root system forms after the stem appears above the surface of the soil.
- 7- If a soil is too dry seeds will germinate.
- 8- Before a seed germinates it is in a dormant state.
- 9- The following title: "*The Life Cycle of a Vegetable*" could fit the above text.

**B- VOCABULARY: Match the words in column A with their synonyms or meanings in column B. For example, answer like: 8- h (3.5 marks)**

- |              |  |
|--------------|--|
| 1- stem      | a-series of events that are regularly repeated in the same order                 |
| 2- root      | b-any of the small thin male parts in the middle of a flower that produce pollen |
| 3- germinate | c-period or step in the development, growth or progress of something             |
| 4- stage     | d- main central plant of a plant, bush or tree coming up from the roots          |
| 5- cycle     | e- start growing   |
| 6- stamen    | f- part of a plant that keeps it firmly in the soil and absorbs water and food   |
| 7- stigma    | g- part that receives the pollen in the centre of a flower                       |

## **II- WRITING (9 marks)**

Environmental and ecological matters are becoming very important for any nation and have even become an international concern. It was the case during the planetary meeting of COP-21 just held some months ago. Are such international conferences vital according to you? Why?

*Give your opinion in an argued and a well-structured essay including an introduction, a development and a conclusion. (25 lines maximum)*

## **III- LANGUAGE IN USE**

*Find the right tenses and forms, and even voices for filling in the blanks in the following extract.*

Answer like: 10-shall live (3 marks)

Pollination (1- to be) the process whereby pollen grains (2- to transfer) from the male parts of the flower to the female parts. The male sexual organ, or stamen, (3- to produce) the pollen which (4- to contain) two male gametes. It (5-to carry) by wind or insect from the stamens to the stigma of the carpel. The next stage (6- to be) fertilization.

Extracted from *English in Focus: English in Agriculture*, Alan Mountford, London, 5<sup>th</sup> Edition, 1985, p.23.