



THE OPEN UNIVERSITY OF SRI LANKA  
FOUNDATION PROGRAMME IN SCIENCE- 2008 / 2009  
ASSESSMENT TEST III - OPEN BOOK TEST  
PSF 1305 / PSE 1305 BOTANY I

DURATION : ONE HOUR

REGISTRATION NO. : .....

DATE: 24<sup>th</sup> October 2008

TIME: 1.00 p.m- 2.00p.m

ANSWER ALL QUESTION ON THE SPACE PROVIDED.

(1) Indicate whether the following statements are True or False.

- a). The roots of parasitic plants are called haustoria. ....
- b). The arrangement of the leaves on the stem is called aestivation. ....
- c). Phyllodes are leaf like stems. ....
- d). Stamens are collectively referred to as gynoecium. ....
- e). The flowers of racemose type inflorescences open in basipetal succession. ....
- f). Wind pollinated flowers are always very colourful. ....
- g). Pine-apple is an aggregate fruit. ....
- h). Double fertilization is a common incident found in the Gymnosperms. ....
- i). Pericarp is produced from stamens of the flower. ....
- j). Poaceae is a very large plant family. ....

(2). Fill in the blanks of the following sentences with the most appropriate word/words.

- a). Most of ..... plant roots posses a special type of tissue called velamen which helps to absorb and retain water.
- b). Carrot is an underground stem where food is stored in the .....

- c). When the difference is not clear between sepals and petals of flowers, such parts are referred to as.....
- d) The stems which are modified to carry out photosynthetic functions are referred to as .....
- e). The embryonic axis between the root tip and the cotyledons is referred to as the .....
- f). Flowers which are adapted for wind pollination are referred to as .....
- g). ..... is a single carpel fruit, which splits along one suture.
- h). The composite fruit of the Fig is referred to as a .....
- i). When the leaf blade is divided into separate leaflets, the leaf is referred to as a .....
- j ). In the technique called....., groups of cells from undifferentiated parenchyma could be induced to produce a new plant.

(3). Differentiate between the following.

a). Rhizome

Tuber

.....  
 .....  
 .....

.....  
 .....  
 .....

b). Simple fruit

Composite fruit

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 .....  
 .....

.....  
 .....  
 .....

c). Prop roots

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.....

Stilt roots

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.....  
.....

d). Fabaceae

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.....

Asteraceae

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.....

e). Racemose inflorescences

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.....  
.....

Cymose inflorescences

.....  
.....  
.....

(14). a) Draw a floral diagram of a flower which has following properties.

Irregular or bilaterally symmetrical flower, 5 separate sepals, 5 separate petals (contorted), 5 stamens, apocarpous ovary, 2 locules and marginal placentation.

b). Write the floral formula of this flower.

.....

c). Give three changes that take place after fertilization in an angiospermous flower.

i) .....

ii) .....

iii) .....

d). Give one common example for each of the following fruit types

i) drupe ..... ii). legume .....

iii). lomentum ..... iv). samara .....

v). cypsella .....

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