

BOWEN UNIVERSITY, IWO
DEPARTMENT OF BIOLOGICAL SCIENCES
2012/2013 FIRST SEMESTER EXAMINATION

BLY 114: PLANT DIVERSITY

Name: Matric No:

Department: Programme:

Answer all questions .

Time: 1 hour 30 mins

SECTION A

1. The three major criteria in the classification of living organisms into plant and animal kingdoms are: _____ and _____ (3 Marks)
2. The importance of the following processes in plants are:
Reproduction: _____

Irritability: _____
_____ (4 Marks)
3. Two differences between the seeds of gymnosperms and angiosperms are
(a) _____
(b) _____ (4 Marks)
4. State two major characteristics of the tracheophytes.
(a) _____
(b) _____ (2 Marks)
5. Apart from the seed, list two characteristics of the gymnosperms
(a) _____
(b) _____ (2 Marks)
6. Define pollination in angiosperms

_____ (4 Marks)
7. In angiosperms, the functions of the following are:
Anther _____
Stigma _____ (2 Marks)
8. Angiosperms are divided into two groups namely:
_____ and _____ (2 Marks)

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9. List two primary functions of green leaf in angiosperms
- (a) _____
- (b) _____
- _____
- (2 Marks)

SECTION B

1. What is dimorphism? _____
- _____
- (2 Marks)
2. *Penicillium* and *Aspergillus* spp belong to the division _____ (1 Mark)
3. In the Pteridophytes _____ is the dominant generation. (3 Marks)
4. List four different arrangement of cells that can be found in bacteria.
- (a) _____
- (b) _____
- (c) _____
- (d) _____
- (4 Marks)
5. The sporangia of Pteropsida are usually found in groups called _____ (2 Marks)
6. _____ is used for locomotion in bacteria. (1 Mark)
7. Mention four types of asexual reproduction processes that can be found in bacteria.
- (a) _____
- (b) _____
- (c) _____
- (d) _____
- (4 Marks)
8. Oxygenic photosynthesis use _____ as the electron donor and generate _____ during photosynthesis. (2 Marks)
9. Cyanobacteria store their excess food as _____ (2 Marks)
10. State one basic difference between the cyanobacteria and other photosynthetic bacteria. _____
- (2 Marks)
11. Organisms in the subdivision one (I) of the cyanobacterial subsection are non motile. True or False _____ (2 Marks)

SECTION 2

1. List five beneficial and two non-beneficial uses of algae.

Beneficial

- (a) _____
- (b) _____
- (c) _____
- (d) _____
- (e) _____

Non-beneficial

- (a) _____
- (b) _____
- (c) _____

2. Which of the following is not a Bryophyte?

- (a) Moss (b) Liverwort (c) Hornwort (d) Equisetum

(1 Mark)

3. In Bryophytes male and female organs are called _____ and _____

(2 Marks)

Answer True or False for questions 4 – 11.

4. Gametophytes is the dominant phase in the life cycle of a bryophyte.

(1 Mark)

5. Algae are called the amphibian of the plant kingdom.

(1 Mark)

6. Algae are differentiated into roots, leaves and stems.

(1 Mark)

7. During sexual reproduction, all Bryophyte need water.

(1 Mark)

8. Alternation of generations provides plants with opportunities to produce offspring.

(1 Mark)

9. Bryophytes are non-vascular plants.

(1 Mark)

10. Agar is commercially obtained from red algae.

(1 Mark)

11. Complete the following table.

| Group of algae | Example |
|------------------|---------|
| Green algae | |
| Blue-green algae | |

(2 Marks)

| Section A (25 Marks) | Section B (25 Marks) | Section C (21 Marks) | Total score (71 Marks) |
|----------------------|----------------------|----------------------|------------------------|
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