

UNIVERSITY OF RUHUNA
BACHELOR OF SCIENCE IN FISHERIES AND MARINE SCIENCES DEGREE

Level II Semester II Examination

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Dec/Jan 2015/2016

OCG1212 Basic Marine Biology (Flora)

Answer only three (03) questions including Question N0. 1

Index No:

Time: 01 ½ hours

01. PART A : Circle the most appropriate answer

- I. The group of marine algae that is best adapted to deep water is:
a) Brown algae b) Green algae c) Red algae d) Blue-green algae
- II. Exclusively marine
a) Diatoms b) Dinoflagellates c) Coccolithophores d) Cyanobacteria
- III. Cell wall made of silicon dioxide
a) Diatoms b) Dinoflagellates c) Coccolithophores d) None of these
- IV. Seaweeds are:
a) vascular plants b) unicellular algae c) multicellular algae d) none of these
- V. _____ is specialized root system in *Avicennia* sp.
a) Peg shaped pneumatophores b) Pencil shaped pneumatophores c) Stilt roots
d) Knee roots
- VI. Olive-brown colour of brown algae is caused by the accessory pigment.
a) Peridinin b) Fucoxanthin c) Chlorophyll-*c* d) Phycobilin
- VII. _____ is composed of a single giant cell or a few large cells with multiple nuclei.
a) *Valonia* b) *Halimeda* c) *Codium* d) *Ulva*
- VIII. Agar and carrageenan are obtained from _____.
a) Green algae b) Brown algae c) Red algae d) Diatoms
- IX. All seaweeds contain _____.
a) Chlorophyll-*a* b) Chlorophyll-*b* c) Chlorophyll *a* & *b* d) Chlorophyll *a* & *c*
- X. The most salt tolerant seagrass sp. is _____.
a) *Halophila engelmanni* b) *Halophila decipiens* c) *Syringodium filiforme*
d) *Halodule wrightii*

PART B : Write your answers in given spaces

I. Write three adaptations of planktonic diatoms to maintain the buoyancy in the water column.

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II. What is the chromatic adaptation of seaweeds?

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III. Write three medicinal uses of seaweeds.

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IV. Write one example for each group.

- a) Diatoms
- b) Dinoflagellates
- c) Coccolithophores
- d) Cyanobacteria

V. List out the factors affecting growth of seagrasses.

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VI. Define three zones across mangrove forest from seaward to landward and give an example for each zone.

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VII. Give one example for each group.

Mangrove associates

Sand dunes vegetation

VIII. Give two economic importance of sand dunes.

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IX. Draw alabeled diagram of the diatom cell.

02. "Mangroves are the most successful and diverse intertidal community". Discuss this statement.
03. a) Write a note on kelp forest.
b) "Sea grasses are highly adapted for their mode of life". Justify this statement.
04. a) Briefly describe the adaptations of sand dune plants that prevent desiccation.
b) Write short notes on the followings.
i. *Arthrocnemum indicum*
ii. *Salicornia brachiata*
iii. *Suaeda maritima*

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