



## SECTION – D

Answer **any six**. (Short essay type questions. **Each** question carries a weightage of **2**).

19. Describe the concept of biodiversity hotspot. Name the biodiversity hotspots in India.
20. What is a food web ? What is its ecological significance ?
21. Compare the pyramid of numbers and pyramid of energy in a tree ecosystem.
22. Give an account of social forestry and its relevance to the environment.
23. Explain the morphological adaptations in Opuntia that enables it to overcome drought.
24. Write a note on algal bloom and its ecological significance.
25. Describe the factors that bring about plant succession.
26. Give an account of rain water harvesting. (6×2=12)

## SECTION – E

Answer **any one**. (Essay type questions. **Each** question carries a weightage of **4**).

27. List the different types of ecosystems. Describe the components of an ecosystem citing grassland ecosystem as an example.
28. What is a forest ? Why do you consider forests as a natural resource ? What are the major factors that cause deterioration of forests ?
29. Write an essay on the cycling of nutrients in the biosphere with special reference to cycling of nitrogen. Give a diagrammatic sketch. (1×4=4)



Reg. No. : .....

Name : .....



VI Semester B.Sc. Degree (CCSS – Reg./Supple./Improve.)

Examination, May 2016

Core Course in Botany/Plant Science

6B14 BOT/PLS : ENVIRONMENTAL SCIENCE AND

PHYTOGEOGRAPHY

(2012 Admn. Onwards)

Time : 3 Hours

Max. Weightage : 30

**Instruction** : Draw diagrams **wherever** necessary.

## SECTION – A

Answer **all**. (Questions in bunches of **four**. **Each** bunch carries a weightage of **one**).

1. Choose the **correct** answer.

- i) The year 2014 was declared by the UN as the International year of
 

a) Biodiversity	b) Family farming
c) Chemistry	d) Water Cooperation
- ii) Norman Myers is related to which of the following concepts
 

a) Ecosystem	b) Law of ten percent
c) Biodiversity hotspots	d) Megadiversity centres
- iii) A food chain starting from green plants and going from smaller animals to larger ones
 

a) Parasitic food chain	b) Predator food chain
c) Detritus food chain	d) Epiphytic food chain



- iv. Heterophylly is a characteristic feature of
- Rooted and floating hydrophytes
  - Halophytes
  - Submerged hydrophytes
  - Partial parasites

2. State **true** or **false**.

- Willis is related to the Age and area hypothesis.
- Tropospheric ozone filters away UV radiations.
- Astomatic leaves are found in mesophytic plants.
- Montreal Protocol is an International Treaty designed to protect ozone layer.

3. Fill in the blanks.

- The hazardous heavy metal present in broken fluorescent lamps is \_\_\_\_\_
- Continental drift hypothesis was proposed by \_\_\_\_\_
- Weathering is a process that leads to the formation of \_\_\_\_\_
- \_\_\_\_\_ is the largest National Park in Kerala.

4. Rearrange column **B** and **C** to match column **A**.

	<b>A</b>	<b>B</b>	<b>C</b>
<b>i</b>	Phytoplanktons	Epiphyte	Soil
<b>ii</b>	Actinomycetes	Mycorrhiza	Pond
<b>iii</b>	Drymoglossum	Decomposer	Root
<b>iv</b>	Soil fungus	Producer	Tree



5) Answer in **one** word or **one** sentence.

- Expand PAN.
- Define wildlife.
- Which is the major gaseous component in biogas ?
- Name a plant possessing cladodes.

(5×1=5)

SECTION – B

Answer **any four**. (Each question carries a weightage of 1). Differentiate the following.

- Velamen roots and haustoria.
- Lotic ecosystem and lentic ecosystem.
- Primary producers and secondary producers.
- Red data book and green book.
- Afforestation and deforestation.
- Succulents and nonsucculents.

(4×1=4)

SECTION – C

Answer **any five**. (Short answer questions. Each question carries a weightage of 1).

- What is an ecotype ?
- Explain how PAN is formed ?
- What do you know about Minamata disease ?
- Define an ecosystem. Who developed the concept ?
- What is a food chain ?
- Mention the role of ozone umbrella.
- List the advantages of biodiesel.

(5×1=5)