

**The Open University of Sri Lanka**

M.Sc. in Environmental Science - Level 07 (2016/17)

**NEP1211 – Understanding the Environment**



**No BOOK TEST -1 (NBT)**

Date :27<sup>th</sup> August 2017

Time Allowed: **One Hour (1.00 pm – 2.00 pm)**

Registration No.

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**ANSWER THE ALL QUESTIONS IN THE QUESTION PAPER**

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**Part A –Multiple Choice Questions**

*For each question there are four suggested answers labelled (a), (b), (c), (d). Underline the correct answer.*

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1.

1.1 Which of the following symbiotic relationship is occurring when one organism is benefited and the other is not affected significantly?

- (a) Mutualism
- (b) Parasitism
- (c) Competition
- (d) Commensalism

1.2 Organisms are classified into trophic levels according to

- (a) where they live.
- (b) the source of their nutrients.
- (c) how much they weight.
- (d) all of the above.

1.3 Which of the following biome receives the least amount of rain fall?

- (a) Temperate forest
- (b) Tropical rainforest
- (c) Deserts
- (d) Grasslands

1.4 Organic compounds first evolved in earth required for origin of life were

- (a) proteins.
- (b) proteins and nucleic acids.
- (c) urea and amino acids.
- (d) urea and nucleic acids.

1.5 Which of the following is correctly arranged from lowest to highest trophic levels ?

- (a) bacteria , eagle , frog, mushroom
- (b) algae, deer, hawk, bacteria
- (c) grass, small fish, minnow, snake
- (d) Grass, mouse ,snake, eagle

1.6 The food chain in an ecosystem helps to maintain,

- (a) the feeding relationship in nature and biodiversity.
- (b) flow of energy in the ecosystem.
- (c) passage of nutrients in the ecosystem.
- (d) all of the above.

1.7 In case of parasitic food chain , the shape of the pyramid of numbers is always

- (a) upright.
- (b) linear.
- (c) inverted.
- (d) None of the above.

1.8 Which of the following statements is **incorrect**?

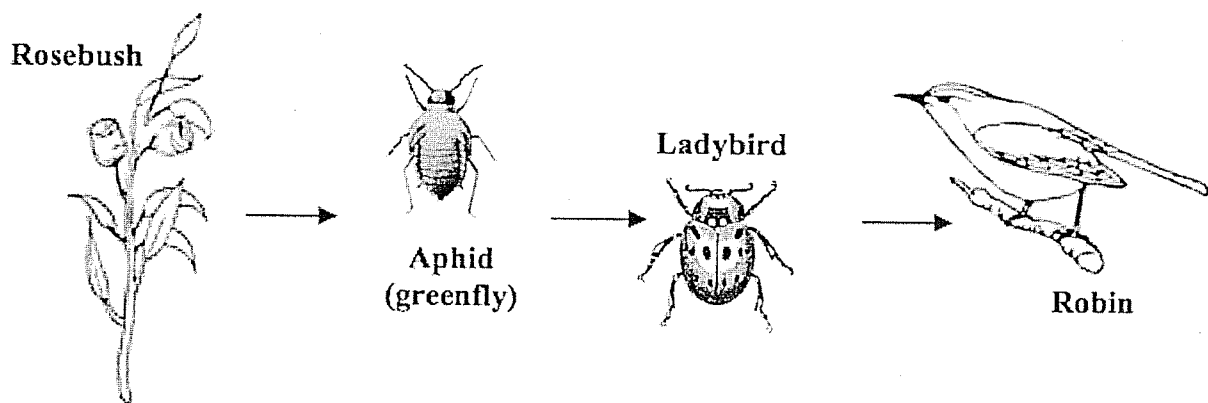
- (a) Inorganic nutrients are recycled in an ecosystem.
- (b) Energy flows through the ecosystem in the form of carbon-carbon bonds.
- (c) Energy is recycled in an ecosystem.
- (d) Respiration process releases energy.

1.9 Eutrophication is,

- (a) an important water quality status of lakes.
- (b) the result of accumulation of plant nutrients in water bodies.
- (c) a process in the carbon cycle.
- (d) a water purification techniques.

1.10 Following food chain relates to a garden habitat.

What effect would the removal of the ladybirds have on the aphid population



- (a) The aphid population would increase
- (b) There would be no change
- (c) The aphid population would decrease.
- (d) There is no effect to aphid population

1.11. What is the role of nitrogen fixing bacteria in the nitrogen cycle?

- (a) They create acid rain.
- (b) They cause algal blooms.
- (c) They make nitrogen into a more useful form.
- (d) They move water through the environment.

1.12 Which of the following is true for the hydrological cycle?

- (a) The supply of groundwater is unchanging.
- (b) All freshwater eventually returns to the sea.
- (c) precipitation to the ocean exceeds evaporation from the ocean
- (d) Freshwater makes up about 75% of the world's supply water.

1.13 Which of the following type of shore is highly biological diverse?

- (a) Sandy shore
- (b) Mud flats
- (c) Salt marsh
- (d) Rocky shore

1.14 Which of the following statements is true for phosphorous cycle?

- (a) It occurs in the atmosphere.
- (b) Weathering of sedimentary rocks makes phosphate available.
- (c) Phosphate is incorporated into organisms proteins.
- (d) All of the above.

1.15 Viviparous germination of seeds occurs,

- (a) within the fruit immediately after the detachment from the mother plant.
- (b) while it is still attached as the mother plant.
- (c) after the seed is released from the fruit.
- (d) when it falls down on a proper substrate.

1.16 Introduction of chemicals into atmosphere is known as

- (a) air pollution.
- (b) radio-active pollution.
- (c) atmospheric pollution.
- (d) dense pollution.



## Part B

### Structured questions

Answer all questions

2. A

(i) What is meant by "biome"

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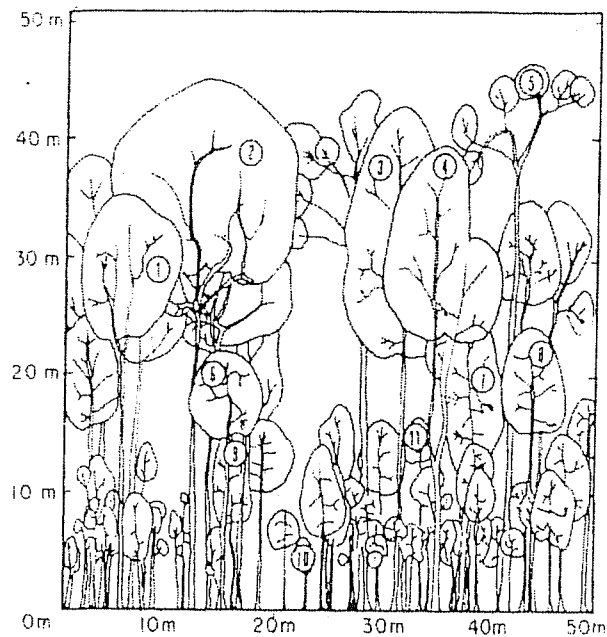
(ii) Name the different types of biomes in the world.

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(iii) What are the main factors affect to the distribution of biomes in the world ?

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(iv) Identify the following biome



(v) Give four (04) characteristics features of above biome.

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(vi) What are the human impacts for above biome?

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**B.** Nitrogen is the most important element for all living organisms.

(i) What is biological Nitrogen fixation?

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(ii) Explain the role of micro organisms in the Nitrogen cycle.

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(iii) Give two methods for loss of Nitrogen from the biosphere.

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(iv) What are the human impacts for Nitrogen cycle?

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