

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL
UNIVERSITY, LONERE - RAIGAD -402 103
Mid Semester Examination - March - 2018**

Branch: B. Arch (First Year Architecture)

Sem.:- II

**Subject with Subject Code: - Environmental Science-II
(AR10200004)**

Marks: 20 Marks

Date: - 26/03/2018

Time: - 1 Hr.

Instructions: - 1. Read the question paper carefully.

2. Neat sketches must be drawn wherever necessary

Q.1 Answer any One pair of the following :(Long Answer Question)

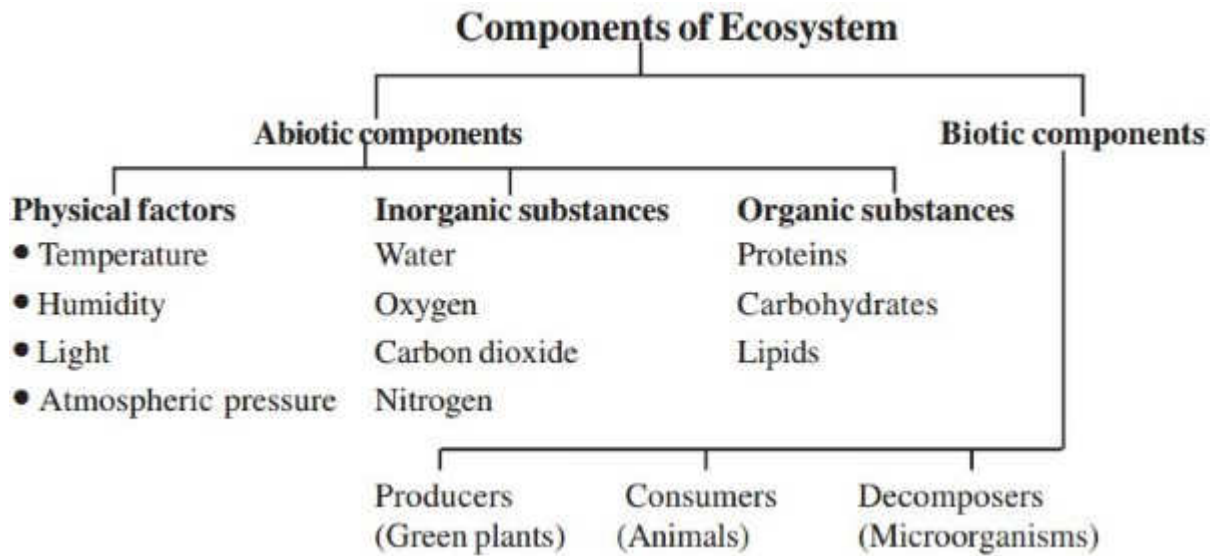
1. a) Define an Ecosystem. Describe any one type of ecosystem. (7 Marks)

Concept of an ecosystem:

- An 'Ecosystem' is a region with a specific and recognizable landscape form such as forest, grassland, desert, wetland or coastal area.
- The nature of the ecosystem is based on its geographical features such as hills, mountains, plains, rivers, lakes, coastal areas or islands.
- It is also controlled by climatic conditions such as the amount of sunlight, the temperature and the rainfall in the region. The geographical, climatic and soil characteristics form its non-living (abiotic) component.
- The living community of plants and animals in any area together with the non-living components of the environment such as soil, air and water, constitute the ecosystem.
- Components of ecosystem in short, Division of ecosystem
- **Any one type of following ecosystem in detail:**
- Forest ecosystem, Grassland ecosystem, Desert ecosystem, Fresh water or marine ecosystem- (introduction of ecosystem, components with respect to that particular ecosystem, subtypes, characteristics features, structure, functions, uses, threats)

b) What are components of ecosystem?

(3 Marks)



Or

2. a) Enlist and describe India's bio geographic zones.

(7 Marks)

- Our country can be conveniently divided into ten major regions, based on the geography, climate and pattern of vegetation seen and the communities of mammals, birds, reptiles, amphibian, insects and other invertebrates that live in them. Each of these regions contains a variety of ecosystems such as forests, grasslands, lakes, rivers, wetlands, mountains and hills, which have specific plant and animal species.
- India's Biogeographic Zones
- 1. The cold mountainous snow covered Trans Himalayan region of Ladakh.
- 2. The Himalayan ranges and valleys of Kashmir, Himachal Pradesh, Uttarakhand, Assam and other North Eastern States.
- 3. The Terai, the lowland where the Himalayan Rivers flow into the plains.
- 4. The Gangetic and Bhramaputra plains.
- 5. The Thar Desert of Rajasthan.
- 6. The semi-arid grassland region of the Deccan plateau Gujarat, Maharashtra, Andra Pradesh, Karnataka and Tamil Nadu.
- 7. The Northeast States of India,

- 8. The Western Ghats in Maharashtra, Karnataka and Kerala.
- 9. The Andaman and Nicobar Islands.
- 10. The long western and eastern coastal belt with sandy beaches, forests and mangroves.
- (Example of flora and fauna from each type if needed)

b) What is Ecological adaptation

(3 Marks)

- The special characteristics that enable plants and animals to be successful in a particular environment are called adaptations. Camouflage, as in a toad's ability to blend in with its surroundings, is a common example of an adaptation.

**Q.2 Explain in short (Any Five):
(Short Answer Question)**

(5 x 2 = 10 Marks)

a) Habitat and niche

- A niche is the role a species plays in the ecosystem. In other words, a niche is how an organism “makes a living.”
- The habitat is the physical area where a species lives. Just like you have a home or place to live, so do animals and plants.

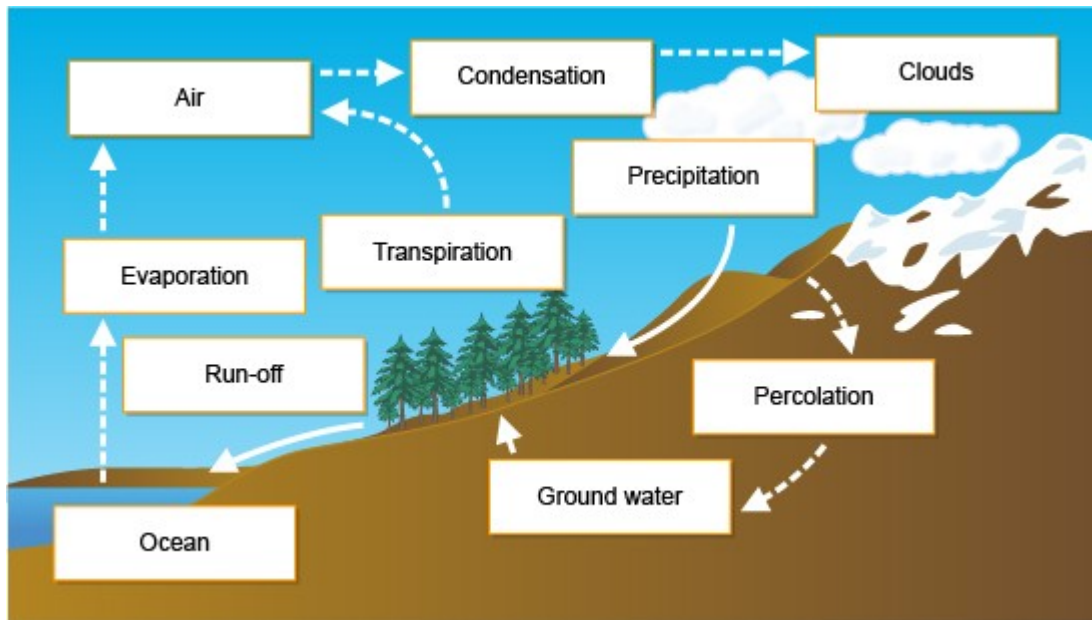
b) Environmental segments

- Earth's environment can be further subdivided into the following four segments: (1) Lithosphere (2) Hydrosphere (3) Atmosphere (4) Biosphere.

c) Enlist the impacts of global climate change (any four)

- Glaciers and polar ice are melting, Sea level rise, Desertification, Biodiversity loss, Ramped up droughts, floods and other extreme weather, acid rain, ozone depletion, increase in average temperature, pollution, soil erosion, species extinction.

d) Draw neat sketch of hydrological cycle



e) Enlist eco regions of India. (Any four)

- Western Himalayan, eastern Himalayan, Assam region with Brahmaputra, Indus plain region, Ganga plain region, central Deccan plateau region, Malabar Coast region, Andaman-Nicobar region, Western Ghats

f) Define ecology

- Ecology (from Greek: oikos "house" or "living relations") is the scientific study of the distributions, abundance and relations of organisms and their interactions with the [environment](#). Ecology includes the study of plant and animal populations, plant and animal communities and [ecosystems](#).

g) Causes of Air pollution

- Volcanic activities, Combustion from Industry, Transportation Emissions, Forest Fires, Burning of Fossil Fuels, Agricultural activities, Deforestation, Waste Incineration, Household Activities, Construction and Agricultural Activities

