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What this file is. A sample of the answer format used in our solved assignments (PDF, Rs 19 per course, Rs 29 for some courses). The question below is a practice question on the BEVAE-181 ecosystem topic written by us to show the format; it is not copied from the current IGNOU assignment booklet. Solved assignments are reference material: read them, then write your own answers.

How it was prepared. Written at our desk from the BEVAE-181 syllabus area on ecosystems (Ability Enhancement Compulsory Course on Environmental Studies, IGNOU) and standard ecology facts. Drafting was AI-assisted; every rule stated was checked against the documents named, and the file is published under the editorial responsibility of BK Sahni, founder. Prepared November 2026.

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BEVAE-181 practice question, answered in our solved-assignment format

Q. Describe the structure and functions of an ecosystem, with examples. (Answer in about 400 words.)

Introduction. An ecosystem is a functional unit of nature in which living organisms interact with one another and with their physical environment. A pond, a forest and a grassland are all ecosystems, each with its own set of plants, animals, microbes and physical conditions.

Structure. The structure of an ecosystem has two parts. The abiotic part includes sunlight, temperature, water, soil, air and minerals. The biotic part includes producers, consumers and decomposers. In a pond, phytoplankton and aquatic plants are producers; zooplankton, insect larvae and small fish are consumers; and bacteria and fungi at the bottom are decomposers. The way these organisms are arranged by feeding level gives the trophic structure, shown by ecological pyramids.

Functions. (i) *Energy flow:* sunlight captured by producers passes through the food chain in one direction, and at each step most of it is lost as heat, so only about one tenth moves to the next level. (ii) *Nutrient cycling:* elements such as carbon, nitrogen and phosphorus move between living and non-living parts and are returned to the soil and water by decomposers. (iii) *Productivity:* producers make organic matter; the rate at which they do so is the primary productivity of the ecosystem. (iv) *Regulation:* food webs and feedback between populations keep an ecosystem relatively stable over time.

Example. In a grassland, grass fixes solar energy, grasshoppers and deer feed on it, frogs and snakes feed on the herbivores, and hawks are top consumers. When these organisms die, decomposers return their nutrients to the soil for the grass to use again.

Conclusion. Structure tells us what an ecosystem is made of; function tells us how energy and materials move through it. Both are needed to understand why the loss of one component, such as decomposers or top predators, affects the whole system.

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