BANC-106: HUMAN ECOLOGY: BIOLOGICAL AND CULTURAL DIMENSIONS

(TUTOR MARKED ASSIGNMENT)

Course Code: BANC 106
Assignment Code: BANC 106/ASST/TMA/2026-2027
Total Marks: 100

Read the instructions carefully and answer accordingly. There are three Sections in the Assignment. Answer all questions from all the sections.

Assignment – I

Answer the following in about 500 words each. **20x2= 40**

a. Define the concept of human ecology and examine its relationship with anthropology. 20

b. Explain briefly the relationship between ecology and diseases. 20

Assignment – II

Answer the following in about 250 words each

a. Discuss human adaptation to hot and cold environments. 10

b. Birth rate and Death rate 10

Answer the following questions in about 75 words each. **2X5=10**

a. Pollutants

b. Cultural materialism

c. Peasantry

d. Human Ecology and climate change

e. Allen's rule

Assignment – III

a. Write a sample research proposal on a topic of your choice in anthropology. 10

b. Describe the systematic process of data analysis, interpretation, and research report writing. 20

a. Define the concept of human ecology and examine its relationship with anthropology. 20

Answer

Human ecology is the study of the relationships between human beings and their environment. It examines how people obtain food, water, shelter and energy; how climate, land and other living organisms affect human life; and how human activities change the surroundings. The environment includes natural factors, such as temperature, rainfall, plants and animals, as well as social and cultural factors, such as technology, family life, beliefs and economic arrangements. Human ecology therefore regards people as part of an interacting system rather than as separate from nature.

An important idea is that human adaptation works through both biological and cultural processes. Human bodies can respond to environmental conditions through physiological changes, while communities develop practices that make life possible under different conditions. Sweating in hot weather is a physiological response, but clothing, building design and working hours are cultural responses. Both affect the way humans survive and use resources.

Human beings within ecosystems

An ecosystem is a system in which living organisms interact with each other and with non-living elements. Human beings depend on its soil, water, sunlight and biological resources. They participate in food chains, use energy and produce waste. At the same time, humans can transform ecosystems on a large scale by farming, constructing roads, extracting minerals and expanding cities. Human ecology studies this two-way relationship. It asks not only how an environment shapes human behaviour but also how people's choices affect ecological balance.

For example, a farming village depends on the seasonal availability of rain and fertile soil. The villagers may select drought-resistant crops, store grain and maintain community wells. These practices reflect ecological knowledge and social cooperation. However, heavy groundwater extraction or excessive use of fertilisers may gradually damage the local environment. An ecological explanation has to consider both outcomes.

Relationship with anthropology

Anthropology is the broad study of human beings, including their biological characteristics, cultures, societies and development over time. Human ecology is