

Professional Course Examination, May 2019
(4th Semester)

BACHELOR OF COMPUTER APPLICATIONS

Paper : BCA-401

(Environment and Ecology)

Full Marks : 75

Time : 3 hours

(PART : A—OBJECTIVE)

(Marks : 25)

The figures in the margin indicate full marks for the questions

SECTION—A

(Marks : 15)

Tick (✓) the correct answer in the brackets provided : 1×10=10

1. Who wrote the *Book of Indian Birds*, his name is synonymous with ornithology in India and with the Bombay Natural History Society (BNHS)?

- (a) S. P. Godrej ()
- (b) E. O. Wilson ()
- (c) Salim Ali ()
- (d) Sunderlal Bahuguna ()

2. The atmosphere forms a protective shell over the earth. The lowest layer is called

- (a) stratosphere ()
- (b) troposphere ()
- (c) ozone layer ()
- (d) greenhouse gases ()

3. The Narmada Bachao Andolan in India is an example of a movement against
- (a) large dams () (b) small dams ()
- (c) large industry () (d) small industry ()
4. A group of organisms which breakdown dead organic material into smaller particles and finally into simpler substances are called
- (a) consumers () (b) producers ()
- (c) decomposers () (d) food chains ()
5. The aquatic ecosystems are classified into freshwater, brackish and marine ecosystems, which are based on the
- (a) salinity levels () (b) water area ()
- (c) source () (d) aquatic habitat ()
6. The Asiatic Lion is now found only in the Gir forests of
- (a) Nilgiri Hills () (b) Assam ()
- (c) Sikkim () (d) Gujarat ()
7. Anti-malarial drug quinine comes from the plants of
- (a) cocoa () (b) yellow cinchona ()
- (c) *Heliotropium indicum* () (d) papaya ()
8. The term used to describe a mixture of smoke and fog is
- (a) smog () (b) foke ()
- (c) aerosol () (d) greenhouse gas ()
9. Mercury poisoning is called
- (a) cataracts () (b) Minamata disease ()
- (c) Japan disease () (d) leukemia ()

10. Sunderlal Bahuguna is known for his

- (a) Global Warming Movement ()
- (b) Water Conservation Movement ()
- (c) Tehri Bachao Andolan ()
- (d) Chipko Movement ()

State whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark in the brackets provided : 1×5=5

1. The hydrosphere covers three-quarter of the earth surface. (T / F)
2. Carbon is a building block of both plant and animal tissues. (T / F)
3. It is estimated that 80% of Indian plants are endemic to the country. (T / F)
4. World Conservation Day is 5th June. (T / F)
5. An average human requires about 12 kg of air each day. (T / F)

SECTION—B

(Marks : 10)

Write notes on the following :

2×5=10

1. Photovoltaic energy
2. The ecological pyramids
3. Species diversity
4. Population growth
5. Effects of noise pollution

(PART : B—DESCRIPTIVE)

(Marks : 50)

The figures in the margin indicate full marks for the questions

1. (a) What is environment? Enumerate and discuss the various segments of environment. 3+7=10

OR

- (b) What is meant by natural resource? Explain renewable and non-renewable natural resources. 2+8=10

2. (a) What are ecological succession and food chain? Explain in your own words. 4+6=10

OR

- (b) Write short notes on any *two* of the following : 5×2=10

(i) Ecological pyramids

(ii) Types and characteristics of ecosystem

(iii) Structure and functions of ecosystem

3. (a) What are the basic reasons of extinction of wildlife? Explain *in situ* conservation of biodiversity. 4+6=10

OR

- (b) What is Chipko Movement? Discuss the preservation of resources for future generations. 3+7=10

4. (a) Define pollution. What are the natural and man-made pollutants that cause air pollution? 3+7=10

OR

- (b) What is Municipal Solid Waste (MSW)? Discuss the control measures of urban and industrial wastes. 3+7=10

5. (a) What is water conservation? Explain the water harvesting and watershed management. 3+7=10

OR

- (b) What is greenhouse effect? Discuss the relation between the environment and sustainable development. 4+6=10
