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( 6th Semester )

**BACHELOR OF COMPUTER APPLICATIONS**

Paper No. : BCA-601 (OC)

**( Environment and Ecology )**

( Old Course )

*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* )

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

- (a) Abiotic environment consists of
- (i) living things ( )
  - (ii) non-living things ( )
  - (iii) solar system ( )
  - (iv) All of the above ( )
- (b) Green plants constitute
- (i) complete food chain ( )
  - (ii) 3rd trophic level ( )
  - (iii) 2nd trophic level ( )
  - (iv) 1st trophic level ( )

- (c) Ozone layer is formed in
- (i) stratosphere ( )
  - (ii) mesosphere ( )
  - (iii) troposphere ( )
  - (iv) exosphere ( )
- (d) A food chain which starts with green plants and culminates with carnivores is called
- (i) grazing food chain ( )
  - (ii) detritus food chain ( )
  - (iii) plasma food chain ( )
  - (iv) All of the above ( )
- (e) A diversity that indicates the number of species in a single community is called
- (i) gamma diversity ( )
  - (ii) beta diversity ( )
  - (iii) alpha diversity ( )
  - (iv) All of the above ( )
- (f) A species is said to be extinct when it is not seen in the wild at a stretch of
- (i) 50 years ( )
  - (ii) 75 years ( )
  - (iii) 100 years ( )
  - (iv) 200 years ( )
- (g) Noise pollution is a value greater than
- (i) 60 dB ( )
  - (ii) 80 dB ( )
  - (iii) 90 dB ( )
  - (iv) 100 dB ( )
- (h) Per year world population is growing more than
- (i) 60 million ( )
  - (ii) 80 million ( )
  - (iii) 90 million ( )
  - (iv) 100 million ( )

(i) Air pollutants mixing up with rain can cause

(i) low acidity ( )

(ii) high acidity ( )

(iii) acid rain ( )

(iv) pollutants ( )

(j) At present, world population is about

(i) 5.6 billion ( )

(ii) 6.6 billion ( )

(iii) 7.6 billion ( )

(iv) 8.6 billion ( )

2. Match Column—A and Column—B with the correct answer :  $\frac{1}{2} \times 10 = 5$

Column—A			Column—B	
(a) Autotroph	( )	=	(i) Christ child	
(b) Omnivores	( )	=	(ii) Ornithologist	
(c) Chipko Movement	( )	=	(iii) Green plants	
(d) Salim Ali	( )	=	(iv) Earnst Haeckel	
(e) World Environment Day	( )	=	(v) April, 1986	
(f) World Population Day	( )	=	(vi) 5th June	
(g) Chernobyl Disaster	( )	=	(vii) December, 1984	
(h) Bhopal Disaster	( )	=	(viii) 11th June	
(i) El Niño	( )	=	(ix) Rats	
(j) Ecology was coined by	( )	=	(x) Sunderlal Bahuguna	

### SECTION—B

( Marks : 10 )

Write notes on the following :

$2 \times 5 = 10$

1. Biotic components
2. Hot spot of biodiversity
3. Rainwater harvesting
4. Types of resource
5. Greenhouse effect

**( PART : B—DESCRIPTIVE )**

( Marks : 50 )

*The figures in the margin indicate full marks for the questions*

1. (a) What is environment? Discuss the scope of environment. 3+5=8

**OR**

- (b) What do you understand by the term 'ecology'? Discuss the structural features of ecosystem. 3+5=8

2. (a) What is ecological pyramid? Write a brief description of pyramid of numbers. 3+5=8

**OR**

- (b) What is energy in ecosystem? Write a note on energy flow in ecosystem. 3+5=8

3. (a) What do you understand by population explosion? Explain Malthusian doctrine in population growth. 3+5=8

**OR**

- (b) What is population density? Explain the population stabilization and sustainable development. 3+5=8

4. (a) What do you mean by water pollution? Mention its sources and control of water pollution. 3+5=8

**OR**

- (b) What is solid waste management? Discuss the sources and management of solid waste management. 3+5=8

5. (a) What is biodiversity? Mention the significant and benefits of biodiversity. 3+5=8

**OR**

- (b) What is sustainable development? How will you measure sustainable development? 3+5=8

6. (a) What is shifting cultivation? Write the impacts on land degradation. 5+5=10

**OR**

- (b) What is natural resource? Write note on the conservation of resources and alternative strategies. 4+6=10

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