Total No. of Questions: 6 *Total No. of Printed Pages:3*

Enrollment No.....

Faculty of Science

End Sem (Even) Examination May-2018

BC3AE02/CA3AE02 Environmental Science

Programme: B.Sc.(CS)/BCA Branch/Specialisation: Computer Science/ Computer Application

Duration: 3 Hrs. **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

Q.1 i. 'Meeting the needs of the present without compromising the ability of future generation to meet their own need' is given by: **1**

(a) Brundtland (b) Mahatma Gandhi

(c) Maathai (d) Sunderlal Bahugana

ii. Social, economical and ecological equity is the necessary condition for achieving **1**

(a) Social development (b) Economical development

(c) Sustainable development (d) Ecological development

iii. Which of the following NGO's is associated with 'Chipko Movement'? **1**

(a) Kalpavriksha (b) Srishti

(c) Dasholi Gram Swarajya Mandal (d) Green Peace

iv. Cattle, Sheep and termites are responsible for the release of the following greenhouse gas **1**

(a) Methane (b) Carbon dioxide (c) Nitrous oxide (d) All of these

v. Overgrazing results in **1**

(a) Soil erosion (b) Productive soils

(c) Retention of useful species (d) All of these

vi. The Sutlej-Yamuna Link (SYL) canal dispute is between **1**

(a) Punjab and Hariyana (b) Karnataka and Tamilnadu

(c) Delhi and U.P (d) All of these

vii. The organisms which feed on dead organisms, wastes of living organisms are called **1**

(a) Chemotrophs (b) Carnivores

(c) Detritivores (d) Decomposers

P.T.O.

viii. The most important indoor air pollutant is **1**
(a) SO_2 (b) CO_2 (c) NO_2 (d) Radon gas

ix. Which operating system is the most green
(a) Windows Vista (b) Linux
(c) Windows XP (d) Apple's OS X

x. LEED (Leadership in Energy and Environmental Design), the Green Building certificate awarded to the environmentally responsible constructions which efficiently use energy, water, other materials and ensure indoor environmental quality in **1**
(a) Europe (b) U.S.A (c) India (d) China

Q.2 i. Discuss main objectives of public awareness. **2**

ii. Explain the multidisciplinary nature of Environmental studies. **3**

iii. Define sustainable development and discuss any two general principles of sustainable development. **5**

OR iv. Write short note on sustainable agriculture. **5**

Q.3 i. Define rain water harvesting. State its any two objectives. **2**

ii. What is Green house effect? Discuss its consequences and safety measures to control it? **8**

OR iii. What do you understand by ozone layer depletion? Give causes and effects of this phenomenon. **8**

Q.4 i. What is deforestation? Give main causes of land degradation. **3**

ii. What are renewable energy sources? Write any three examples with two advantages and two disadvantages for each. **7**

OR iii. What is soil erosion? What are its causes? How can soil be conserved? **7**

Q.5 i. Define ecosystem. Discuss the biotic and abiotic components of ecosystem. **4**

ii. Write short notes on: **6**
(a) Bhopal Gas Tragedy
(b) Ground water pollution by fluoride

OR iii. Briefly describe the sources, effects and control of noise pollution **6**

Q.6 Attempt any two:

i. Write a note on concept of green building **5**

ii. What do you understand by industrial ecology? Write its principles. **5**

iii. What is green technology? State its advantages and disadvantages. **5**

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Marking Scheme
BC3AE02/CA3AE02 Environmental Science

Q.1	i	(a) Brundtland		**1**
	ii	(c) Sustainable development		**1**
	iii	(c) Dasholi Gram Swarajya Mandal		**1**
	iv	(a) Methane		**1**
	v	(a) Soil erosion		**1**
	vi	(a) Punjab and Hariyana		**1**
	vii	(c) Detritivores		**1**
	viii	(d) Radon gas		**1**
	ix	(b) Linux		**1**
	x	(b) U.S.A		**1**
Q.2	i	Two objectives	- 1 mark each	**2**
	ii	Multidisplinary nature of Environmental Studies		**3**
	iii	Definition	-1 mark	**5**
		Two objective with explanation		
		2 Marks each (2 * 2 marks)	- 4 marks	
OR	iv	Need	-1 mark,	**5**
		Definition	-1 mark,	
		Principles	-1 mark,	
		Soil, Water, food security	-2 Marks	
Q.3	i	Rain water harvesting with any two objectives		**2**
	ii	Green house effect	-3 Marks,	**8**
		Consequences	-2 Marks,	
		Control Measures	-3 Marks	
OR	iii	Ozone layer depletion with reactions	-3 Marks,	**8**
		Causes	-2 Marks,	
		Effects	-3 Marks	
Q.4	i	Deforestation		**3**
		Main causes of land degradation		
	ii	Definition	-1 mark,	**7**
		Source-advantages & Disadvantages	-2 Marks each	
		(2 Marks * 3 = 6 marks)		
OR	iii	Definition	-1 mark,	**7**
		Causes	-3 Marks,	
		Methods of conservation	-3 Marks	
Q.5	i	Definition	-1 mark,	**4**
		Biotic	- 1.5 Marks	
		Abiotic	-1.5 Marks	
	ii	(a) Place	-1 mark ,	**6**
		Reason	-1 mark	
		Effects	-1 mark	
		(b) Case study of two places 1.5 marks each.(2 * 1.5)		
OR	iii	Sources	-2 marks,	**6**
		Effects	-2 marks	
		Control	-2 marks.	
Q.6	i	Green building Definition.	-1 mark,	**5**
		Criteria for green building	-3 marks	
		Example	-1 mark	
	ii	Industrial ecology	- 1 mark	**5**
		Principles	- 4 marks	
	iii	Green technology	-2 marks ,	**5**
		Advantages	-1.5 marks	
		Disadvantages	-1.5 marks	

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