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**GIET UNIVERSITY, GUNUPUR – 765022**  
**B. C. A (First Semester) Examinations, March' 2023**  
**BCA20102 – Environmental Science**

Time: 3 hrs

Maximum: 70 Marks

**The figures in the right hand margin indicate marks.**

**PART – A: (Multiple Choice Questions)****(1 x 10 = 10 Marks)**Q. 1 Answer ALL questions

CO # PO #

- |   |  |   |
|---|--|---|
| a. Which statement is correct with respect to the food chain?   | 1  | 3 |
| (i) Every component of the food chain forms a trophic level   | (ii) Inter-relation between different food chains is known as a food web |   |
| (iii) All the chains formed by nutritional relations is used to understand energy flow.                               | (iv) All of the above  |   |
| b. In an ecosystem, the energy flow is always   | 1  | 2 |
| (i) Always unidirectional   | (ii) Always bidirectional  |   |
| (iii) In any direction  | (iv) Always down directional   |   |
| c. Which of the following is called the secondary air pollutant?  | 2  | 2 |
| (i) PANs  | (ii) Ozone   |   |
| (iii) Carbon monoxide   | (iv) Nitrogen Dioxide  |   |
| d. What is the full form of BOD?  |  |   |
| (i) Biochemical oxygen demand   | (ii) Bionatal oxygen demand  | 2 |
| (iii) Biological disease  | (iv) Biological oxygen deficiency  | 2 |
| e. Ozone-depleting substance chiefly utilized in  | 3  | 3 |
| (i) chimneys  | (ii) all of the human activities   |   |
| (iii) burning fossil fuels  | (iv) Freon   |   |
| f. The damage caused by acid rain is due to _____ nature of acid rain.  | 3  | 1 |
| (i) balancing   | (ii) protecting  |   |
| (iii) withstanding  | (iv) corrosive   |   |
| g. When did The Wildlife Protection Act 1972, come into force?  | 3  | 1 |
| (i) 01 April 1972   | (ii) 01 March 1973   |   |
| (iii) 09 September 1972   | (iv) 23 April 1972   |   |
| h. When did The National Green Tribunal Act 2010, come into force?  | 4  | 2 |
| (i) 01 April 2010   | (ii) 21 March 2010   |   |
| (iii) 01 May 2010   | (iv) 18 October 2010   |   |
| i. The word ethics stands for   | 4  | 2 |
| (i) Substances  | (ii) Properties of chemicals   |   |
| (iii) Study of molarity   | (iv) Understanding human nature  |   |
| j. Which of the following pyramid represents the total dry weight of the total amount of living matter at each level? | 1  | 3 |
| (i) Pyramid of energy   | (ii) Pyramid of age  |   |
| (iii) Pyramid of biomass  | (iv) Pyramid of numbers  |   |

**PART – B: (Short Answer Questions)****(2 x 10 = 20 Marks)**Q.2. Answer ALL questions

	CO #	PO #
a. Briefly explain the waste management for municipal waste.	2	2
b. What is richter scale? Write the application of it.	3	1
c. How can you fight in the flooded area? Mention in points.	3	2
d. Differentiate between grazing food chain and detritus food chain.	1	2
e. What are the preventive measures of water pollution?	2	2
f. Explain the importance of disaster management.	2	3
g. Differentiate between autecology and synecology.	1	2
h. Write about ramsar convention.	3	2
i. Write the difference between ethics and values.	4	2
j. Explain why we need the sustainable development?	4	3

**PART – C: (Long Answer Questions)****(10 x 4 = 40 Marks)**Answer ALL questions

	Marks	CO #	PO #
3.a. Extricate the types of ecosystem and its features.	5	1	3
b. Enumerate the ecological pyramid and types.	5	1	3
(OR)			
c. Draw and explain the nitrogen cycle between lithosphere and atmosphere.	10	1	4
4.a. Illustrate the cause, effects and control measures of solid waste management.	10	2	3
(OR)			
b. Describe the cause and effect of radiation pollution. Also explain the protective measures.	10	2	3
5.a. Explain about national green tribunal in details.	10	4	2
(OR)			
b. Sustainable development is necessary for our future generation. Explain the statement in details.	10	4	3
6.a. Greenhouse gas are responsible for global warming. Justify the statement.	5	3	3
b. Explain the ramsar convention and montreal protocol	5	3	2
(OR)			
c. Write about the forest preservation act.	5	3	2
d. Illustrate about water prevention act.	5	3	2

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