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## ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B.E. /B.Tech / B. Arch (Full Time) - END SEMESTER EXAMINATIONS, NOV / DEC 2024  
GE5251 - ENVIRONMENTAL SCIENCES  
(Regulation 2019)

Time: 3hrs

Max Marks : 100

CO1	To recognize and understand the functions of environment, ecosystems and biodiversity and their conservation.
CO2	To identify the causes, effects and environmental pollution and natural disasters and contribute to the preventive measures in the immediate society
CO3	To identify and apply the understanding of renewable and non-renewable resources and contribute to the sustainable measures to preserve them for future generations.
CO4	To recognize different forms of energy and apply them for suitable applications in for technological advancement and societal development.
CO5	To demonstrate the knowledge of societal activity on the long and short term environmental issues and abide by the legal provisions, National and International laws and conventions in professional and personal activities and to identify and analyse effect of population dynamics on human value education, consumerism and role of technology in environmental issues.

**PART- A (10x2=20Marks)**  
(Answer all Questions)

Q.No.	Questions	Marks	CO	BL
1	What is sustainable development?	2	1	L2
2	Sketch the classification of ecosystem.	2	1	L3
3	List the sources of air pollution.	2	2	L1
4	Which area in city is called silent zone?	2	2	L2
5	What is the composition of Biogas?	2	3	L2
6	Define "Food Security".	2	3	L1
7	Enumerate the methods of prevention of soil erosion	2	4	L2
8	What are the causes and effects of acid rain?	2	4	L1
9	Mention the different types of population growth curves.	2	5	L1
10	What is the major objective of family welfare programmes in India?	2	5	L2

**PART- B (5x 13=65Marks)**

Q.No.	Questions	Marks	CO	BL
11 (a)	Describe each phases of ecological succession with a neat diagram.	13	1	L3
OR				
11 (b)	Explain the Aquatic ecosystem with its classification.	13	1	L3
12 (a)	Brief out how electrostatic precipitator and bag house filter effectively collect the dust from Industry.	13	2	L3
OR				
12 (b)	What is solid waste management? Explain the three categories of Solid waste management.	13	2	L3

13 (a)	Construct rain water harvesting with a proper diagram and brief out the water conservation practices.	13	<u>3</u>	<u>L3</u>
<b>OR</b>				
13 (b)	Describe briefly about the merits and demerits of traditional and modern agricultural methods.	13	<u>3</u>	<u>L3</u>
14 (a)	Write a short note on (i) Minamata disease, (ii) Biomagnification, (iii) Itai-itai disease, (iv) Blue baby syndrome ?	13	<u>4</u>	<u>L4</u>
<b>OR</b>				
14 (b)	Discuss any two case studies related to nuclear disasters.	13	<u>4</u>	<u>L4</u>
15 (a)	Discuss the role of Information Technology in the protection of Environment and Human health.	13	<u>5</u>	<u>L5</u>
<b>OR</b>				
15 (b)	What are the steps that have to be taken to control the AIDS epidemic in India?	13	<u>5</u>	<u>L5</u>

**PART- C(1x 15=15Marks)**  
(Q.No.16 is compulsory)

Q.No.	Questions	Marks	CO	BL
16.	Differentiate the following pairs with an example 1.Biotic and abiotic 2.Indicator species & keystone species 3. Extinct & Vulnerable 4.Food Chain & Food web 5.Conifereous & Deciduous	15	<u>1</u>	<u>L3</u>

