

USN

1RV23EC063

**RV COLLEGE OF ENGINEERING®**

(An Autonomous Institution Affiliated to VTU)

III Semester B. E. Regular / Supplementary Examinations Jan / Feb-2025

Common to All Programs

**ENVIRONMENT AND SUSTAINABILITY**

Time: 03 Hours

Maximum Marks: 100

Instructions to candidates:

1. Answer all questions from Part A. Part A questions should be answered in first three pages of the answer book only.
2. Answer FIVE full questions from Part B. In Part B question number 2 is compulsory. Answer any one full question from 3 and 4, 5 and 6, 7 and 8, 9 and 10.

**PART-A**

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1	1.1	Highlight any two strategies of conserving the ecosystem.	02	1	1
	1.2	Enumerate the 10% rule of energy flow.	02	1	1
	1.3	How Renewable Energy are sustainable?	02	2	1
	1.4	Highlight the principle of Green Engineering.	02	1	2
	1.5	Define Environmental economics.	02	1	3
	1.6	Recall the Goal seven of Millennium Development Goals.	02	1	2
	1.7	Enlist any four activities to control Climate Change.	02	1	3
	1.8	Highlight the concept of carbon offset.	02	1	3
	1.9	What is life cycle assessment of a material?	02	1	3
	1.10	State the 4 pillars of CSR.	02	1	4

**PART-B**

2	a	Describe pollutants. Enumerate the different types of pollution.	08	2	2
	b	Define EMS. How EMS is structured? Explain.	08	2	3
3	a	Justify how renewable energy benefit Environment and save money.	08	5	1
	b	With a neat sketch of carbon cycle enumerate the steps involved in the same.	08	2	1
<b>OR</b>					
4	a	Distinguish between conventional and non-conventional source of energy.	08	2	2
	b	How Transit Oriented Development (TOD) promotes sustainable development. Justify.	08	5	3
5	a	Discuss the scope and goals of Environmental Auditing.	08	2	3
	b	Illustrate the economic and environmental benefits of a circular economy.	08	3	3
<b>OR</b>					
6	a	State and explain the key features of transition from a linear to circular economy.	08	2	3
	b	Enumerate the concept of Industrial ecology.	08	3	3

7	a	With reference to Global Climate change highlight water scarcity and causes of water scarcity.	OS	2	2
	b	Interpret how carbon credits is valuable tool in combating climate change.	OS	5	3
OR					
8	a	Define <i>EIA</i> ? Enumerate the benefits of conducting <i>EIA</i> .	OS	2	2
	b	Discuss the evolution of Life cycle assessment.	OS	2	3
OR					
9	a	Summarize the key aspects of <i>CSR</i> .	OS	2	4
	b	Discuss in brief the concept of corporate Philanthropy.	OS	2	4
OR					
10	a	Enumerate the Triple bottom line concept for sustainable business.	OS	3	4
	b	Illustrate the broader relationship between <i>CSR</i> and Corporate Governance.	OS	3	4