

RV COLLEGE OF ENGINEERING®
 (An Autonomous Institution Affiliated to VTU)
 IV Semester B. E. Examinations Sept./Oct. – 2024
 Civil Engineering

ENVIRONMENT AND SUSTAINABILITY (BASKET COURSE)

Time: 03 Hours

Instructions to candidates:

Maximum Marks: 100

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	List the components of environment.	02	1	1
	1.2	Differentiate between primary and secondary succession.	02	4	1
	1.3	Define climate change.	02	1	2
	1.4	List any two renewable and non renewable sources of energy.	02	1	2
	1.5	Define GDP as an economic indicator.	02	1	3
	1.6	Enlist any four Millennium Development Goal (MDG's).	02	1	3
	1.7	List any four ozone depleting substances.	02	1	2
	1.8	Define carbon foot print for a product or process.	02	1	3
	1.9	Write the principles of CSR.	02	2	4
	1.10	What are the two examples of business ethics?	02	2	4

PART-B

2	a	Classify different types of ecosystems. Explain in brief any two ecosystems with their structure and composition.	08	2	1
	b	Briefly describe the various Environmental protection acts promulgated in India.	08	2	2
3	a	Demonstrate on "Hydrogen energy is a clean energy", write the advantages and disadvantages of Hydrogen energy as an energy source.	08	2	2
	b	Enumerate the process of energy management and energy conservation with its objectives.	08	2	2
OR					
4	a	Explain : i. Biomass energy ii. Ocean thermal energy conversion	08	2	2
	b	Define Energy cycle and explain with a neat sketch carbon cycle.	08	2	2
OR					
5	a	Discuss Environmental Economics and Environmental audit as a measure to sustainability.	08	2	3
	b	Discuss linear resource management systems as bane in sustainable Growth of industries.	08	2	3
OR					

6	a	Illustrate how sustainable development is concept of three aspects of society.	08	2	2
	b	Define industrial ecology and explain the strategies to implement the same.	08	2	2
7	a	Enumerate all the 17 SDG's stipulated by United nations and brief the significance of any one.	08	1	3
	b	Explain Zero waste concept as a philosophical approach.	08	2	3
OR					
8	a	Describe Circular Economy and distinguish linear vs circular economy.	08	2	3
	b	Explain ISO 14000 and carbon Sequestration.	08	2	3
9	a	Recall and explain the history of evolution of CSR.	08	2	4
	b	Illustrate the concept of charity and corporate philanthropy.	08	2	4
OR					
10	a	Discuss the concept of sustainability and stakeholder Management.	08	2	4
	b	Enumerate the key features of Global Reporting Index and Dow Jones sustainability index.	08	1	4