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**RV COLLEGE OF ENGINEERING®**

(An Autonomous Institution Affiliated to VTU)

III Semester B. E. Examinations April/May-2024

Common to All

**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	Define the terms Biotic and Abiotic components.	02	1	1
	1.2	Mention threats to bio-diversity.	02	1	1
	1.3	List out the types of land pollution.	02	1	2
	1.4	State the effects of noise pollution.	02	1	2
	1.5	What are fossil fuels and why they are non-renewable?	02	1	2
	1.6	What is biogas and mention its uses.	02	1	2
	1.7	Highlight the significance of GDP in nation's economic activity.	02	2	3
	1.8	Highlight the distinction between Kyoto protocol and Paris agreement.	02	2	3
	1.9	Mention the principles of organic farming.	02	1	3
	1.10	Enumerate the significance of EIA in developmental projects.	02	1	4

**PART-B**

2	a	Discuss the importance of any four environmental protection acts promulgated in India.	08	2	1
	b	Briefly discuss the causes, effects and preventive measures for soil and air pollution.	08	2	2
3	a	Explain the concept of energy management and conservation.	08	2	2
	b	Enumerate the concept of sustainable urbanization and the need for the same.	08	1,2	3
<b>OR</b>					
4	a	Explain the concept of hydrogen energy with its uses, advantages and disadvantages.	08	2	2
	b	Explain the carbon cycle with sketch.	08	2	2
5	a	Define environmental audit. Briefly describe the types of environmental audit.	08	1	3
	b	Enumerate the economic and social aspects of sustainability.	08	1	3
<b>OR</b>					

6	a	Explain the key concepts of system thinking along with its advantages.	08	2	3
	b	Discuss the concepts of circular economy and industrial ecology.	08	2	3
7	a	Enumerate the various ways of reducing carbon footprint in our daily life.	08	1	3
	b	State and explain how green building concept evolved as sustainable habitat.	08	2	3
<b>OR</b>					
8	a	Enumerate ISO 14000 series of standards.	08	1	3
	b	Explain in brief the necessity of energy efficiency and sustainable transport.	08	2	3
9	a	Explain the principles of CSR.	08	2	4
	b	Explain the concept of charity and corporate philanthropy.	08	2	4
<b>OR</b>					
10	a	Enumerate the environmental aspects of CSR.	08	1	4
	b	Explain how the changing emphasis of companies focusing on CSR.	08	2	4