



Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026
E-Waste Management

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Demonstrate the life cycle of an e-waste product by creating a detailed diagram that illustrates each stage including design, production usage and disposal. (10 Marks)
- b. Discuss the role of a circular economy in e-waste management. Use a block diagram to illustrate key concepts including the life cycle approach for tackling e-waste. (10 Marks)

OR

- 2 a. Illustrate E-waste flow and recycling in India with neat block diagram. (12 Marks)
- b. Illustrate the opportunities and challenges of E-waste management in India. (08 Marks)

Module-2

- 3 a. Discuss the EPR Goals and Policy Instruments in E-waste management. (10 Marks)
- b. Identify and describe the essential factors required for successful implementation of EPR in e-waste management. (10 Marks)

OR

- 4 a. Explain the environmental, human health and resource efficiency impacts associated with the toxicity of e-product and e-waste. (10 Marks)
- b. What are the environmental and health impact of informal e-waste recycling in India, and how do current regulations address these issues? (10 Marks)

Module-3

- 5 a. What are the key differences between the linear economy and circular economy models? (10 Marks)
- b. Discuss on how do recycling and resources efficiency challenges affect the implementation of a circular economy. (10 Marks)

OR

- 6 a. Explain the purpose of the E-waste (Management and Handling) Rules, 2011, and discuss its limitations. (10 Marks)
- b. Explain the major improvements made in E-waste Management Rules, 2016 and Amendment Rules, 2018 over the E-waste (Management and Handling) Rules, 2011. (10 Marks)

Module-4

- 7 a. Describe the Pan-India Initiative for e-waste management implemented between 2000 and 2020. (10 Marks)
- b. Explain the significance of formal-informal partnership in e-waste management sector in India, Highlighting the challenges and potential solutions. (10 Marks)

OR

- 8 a. Discuss the achievements and contributions of the IFC's e-waste programme in India and its broader vision for sustainable e-waste management by 2030. (10 Marks)
- b. Discuss the impact of government regulations and initiatives post 2012 on e-waste management in India. (10 Marks)

Module-5

- 9 a. Analyze the key areas of focus for the future of e-waste management in India. (10 Marks)
- b. Discuss the environmental concerns shapes the approaches related to e-waste management. (10 Marks)

OR

- 10 a. Explain the importance of cultivating a recycling culture in society for effective e-waste management. (10 Marks)
- b. Explain the economic opportunities and challenges associated with the development of a circular Economy for e-waste management. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.