

USN

--	--	--	--	--	--	--	--	--	--

Question Paper Version : C

Fourth Semester B.E./B.Tech. Degree Examination, June/July 2025 Electronic Waste Management : Issue & Challenges

Time: 1 hr.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners on the OMR sheets are strictly prohibited.**

1. What is the term used to describe the illegal export of E-waste to developing countries?
a) Green washing
b) E-cycling
c) E-waste dumping
d) Digital divide
2. What is the primary goal of E-waste recycling?
a) To reduce landfill waste
b) To increase production costs
c) To encourage digital innovation
d) To promote E-commerce
3. Which organization often provides drop-off location for E-waste recycling?
a) Super markets
b) Restaurants
c) Municipalities
d) Libraries
4. Which component of E-waste is most difficult to recycle?
a) Batteries
b) Circuit boards
c) Plastics
d) Glass
5. Which industry often reuses old electronics for remanufacturing?
a) Automotive
b) Agriculture
c) Fashion
d) Mining
6. Which emerging technology shows the most promise for increasing the efficiency of E-waste recycling by recovering valuable materials from complex electronic products?
a) Mechanical shredding
b) Incineration
c) Hydrometallurgical processes
d) Pyrolysis
7. Which toxic compound is not found in E-waste?
a) Mercury
b) Cadmium
c) Neon
d) Lead

20. Which of the following materials can be recovered from E-waste?
a) Gold b) Silver c) Copper d) All of these
21. India's first E-waste clinic was inaugurated in _____.
a) West Bengal b) Andhra Pradesh
c) Tamil Nadu d) Madhya Pradesh
22. What is the Primary Legislation governing E-Waste management in India?
a) Environmental Protection Act, 1986
b) E-Waste (management) Rules, 2016
c) Hazardous waste (Management and Handling) Rules, 1989
d) Public Liability Insurance Act, 1991
23. Under the E-waste (management) Rules, 2016, which entity is primarily responsible for the collection and disposal of E-waste?
a) Consumers b) Producers
c) Municipal corporations d) Central Pollution Control Board (CPCB)
24. What does the term "Extended Producer Responsibility (EPR)" mean in the context of Indian E-waste management laws?
a) Producers are responsible for the entire lifecycle of their products, including disposal.
b) Consumers are responsible for returning E-Waste to collection centers.
c) Municipalities are responsible for E-waste collection and recycling
d) Importers are responsible for ensuring that E-waste is properly managed
25. Which type of E-waste is typically NOT covered under India's E-waste (Management) Rules, 2016?
a) Personal computers b) Mobile phones
c) Household batteries d) Television sets
26. What is the penalty for non-compliance with the E-waste (management) Rules, 2016 in India?
a) No Penalty b) Monetary fines and imprisonment
c) Warning letters d) Product recall
27. Which international agreement influences India's regulations on E-waste, particularly regarding the transboundary movement of Hazardous waste?
a) Kyoto protocol b) Basel convention
c) Montreal protocol d) Paris agreement
28. Under the E-waste (Management) Rules, 2016, what is required of producers regarding E-waste targets?
a) They must reduce production of electronics.
b) They must meet specific E-waste collection target annually.
c) They must Export all E-waste for recycling
d) They must only use biodegradable material in production
29. Which ministry is primarily responsible for formulating policies and regulations related to E-waste management in India?
a) Ministry of commerce and industry
b) Ministry of Environment, Forest and climate change
c) Ministry of Home Affairs
d) Ministry of Electronics and Information Technology

30. What is the main role of the CPCB under the E-waste management regulations in India?
- Manufacturing Electronic devices
 - Monitoring and Ensuring compliance with the E-waste rules
 - Selling recycled materials
 - Educating consumers about electronic products
31. Which of the following health issues can be caused by exposure to lead in E-waste?
- Headaches
 - Neurological damage
 - Lung cancer
 - Diabetes
32. What component in E-waste is known to cause cancer in humans?
- Beryllium
 - Gold
 - Silicon
 - Tin
33. How can E-waste affect groundwater?
- By increasing water table levels
 - By leaching toxic substances into it
 - By improving water quality
 - By reducing water hardness
34. What health risk is associated with exposure to cadmium in E-waste?
- Skin irritation
 - Bone damage
 - Kidney damage
 - Hair loss
35. Which organization provides guidelines for E-waste management?
- WHO
 - EPA
 - UNICEF
 - NASA
36. What percentage of E-waste is recycled globally according to recent estimates?
- 10%
 - 20%
 - 50%
 - 70%
37. What is the primary reason for the low recycling rate of E-waste?
- Lack of awareness
 - High cost of recycling
 - Lack of technology
 - All of these
38. Which toxic element in E-waste is known to affect the human nervous system?
- Copper
 - Lead
 - Iron
 - Zinc
39. What is an extended producer responsibility (EPR) program?
- A consumer initiative for waste reduction
 - A government program for waste management
 - A policy approach where producer are responsible for disposal
 - A recycling facility initiative
40. Which of the following is NOT a common method for E-waste collection?
- Municipal recycling programs
 - Landfill disposal
 - Manufacturer take-back programs
 - Non profit donation centers
41. Which of the following is considered E-waste?
- Food scraps
 - Old computers
 - Used Paper
 - Glass Bottles
42. Which of the following is NOT a type of E-waste?
- Refrigerators
 - Televisions
 - Aluminium cans
 - Smartphone

* * * * *

VTU-27-06-2025 01:22:20pm

EP - EP - EP - EP - EP - EP - EP - EP - EP

27-06-2025 01:32:07pm

EP - EP - EP - EP - EP - EP - EP - EP - EP