



UTTAR BHARATIYA SANGH'S

**MAHENDRA PRATAP SHARADA PRASAD SINGH
COLLEGE OF COMMERCE AND SCIENCE**



2022-23

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SOLUTIONS





E- WASTE AUDIT REPORT

2022-23

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COLLEGE OF COMMERCE AND SCIENCE

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1.E- waste

The term "e-waste" is an abbreviation of "electronic and electrical waste". A key part of the definition is the word "waste" and what it logically implies – that the item has no further use and is rejected as useless or excess to the owner in its current condition.

E-waste is any electrical or electronic equipment that's been discarded. E-waste is particularly dangerous due to toxic chemicals that naturally leach from the metals inside when buried.

1.1Types of E-waste:

1. Large household appliances (refrigerators/freezers, washing machines, dishwashers)
2. Small household appliances (toasters, coffee makers, irons, hairdryers)
3. Information technology (IT) and telecommunications equipment (personal computers, telephones, mobile phones, laptops, printers, scanners, photocopiers)
4. Consumer equipment (televisions, stereo equipment, electric toothbrushes)
5. Lighting equipment (fluorescent lamps)
6. Electrical and electronic tools (handheld drills, saws, screwdrivers)
7. Toys, leisure and sports equipment
8. Medical equipment systems (with the exception of all implanted and infected products)
9. Monitoring and control instruments
10. Automatic dispensers.

2.Need of e waste management:

Environmental Protection: E-waste contains toxic substances that can contaminate soil, water, and air if improperly disposed of. E-waste management helps prevent the release of hazardous materials into the environment, reducing pollution and safeguarding ecosystems.

2.1 Environmental Protection:

E-waste contains toxic substances that can contaminate soil, water, and air if improperly disposed of. E-waste management helps prevent the release of hazardous materials into the environment, reducing pollution and safeguarding ecosystems.

2. 2 Resource Conservation:

Electronic devices contain valuable resources like gold, silver, copper, and rare earth materials to be recovered and reused, reducing the need for mining and preserving precious resources.

2.3 Health and Safety:

Improper handling of e-waste can expose workers and communities to hazardous substances. By implementing proper e-waste management practices, we can protect the health and safety of both humans and the environment.

3. Types of E- waste in college campus:

E-wastes are generated from computer laboratories, electronic labs, Physics Labs, Chemistry Lab, Academic and Administrative Offices.

Centralized data processing instruments, Mainframes, Minicomputers, Central Processing Units (CPUs), Input and output devices, Laptop, Desktop, Notepad.

- Printers, Printer cartridges, Copying Equipment.

Electrical and electronic typewriters, Teleprompter terminals, Facsimiles, Telex machines.

- Telephones, Cordless telephones, Cellular telephones, Answering systems.

- Television sets based on Liquid Crystal Display (LCD) and Light Emitting Diode (LED) technology.

- Air-conditioners (excluding centralized air conditioning plants) • Fluorescent lamps, lamps which contain mercury, and other Consumer electrical and electronic items



Ready to reuse



For Repairing

4. Process of e waste management in college campus:

M.P.S.P.S. college has very efficient mechanism to dispose E wastes generated from various sources.

4.1 Collection of E- Waste in M.P.S.P.S. college campus:

- E- Waste collected from different department e.g. computer lab, IT lab, office room and other department of M.P.S.P.S. college building. Collected E- Waste segregated and then stored in a particular location for next process. It is observed that more E- waste Generated in IT department and Office room. E-waste store for exchange offer or dispose off to minimum price.



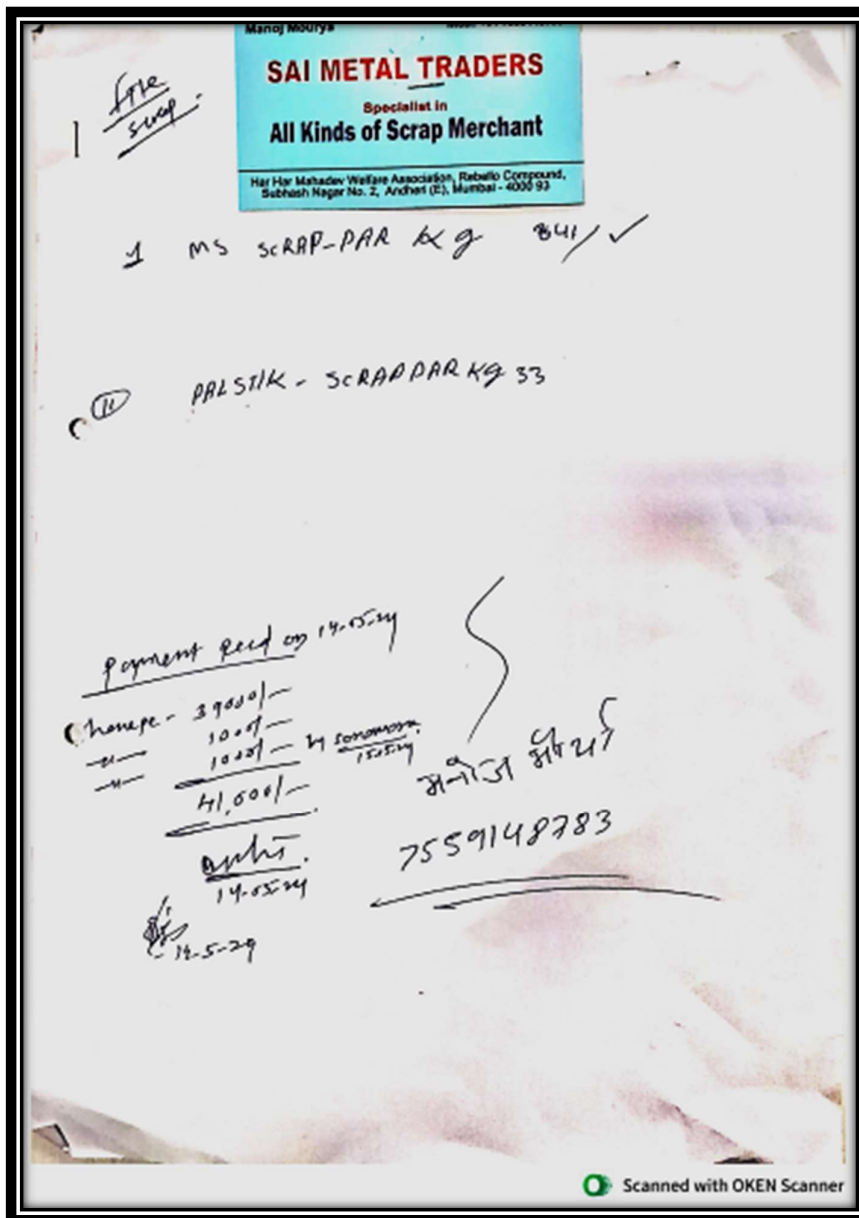
E-WASTE ROOM



Replacing with led lights

4.2 Handed Over to process to E- Waste vender:

If there really is no way to reuse or return the item, M.P.S.P.S. college finding a reliable local organization who will recycle it. Collage taking the quotation for the different vender. Collage committee finalize the vender on the basis of their recycle process and e waste management system. Vender collected the material from M.P.S.P.S. college door steps.



4.3 Role of vender e- waste management:

1. Collection: Vender collected all E- waste from M.P.S.P.S. college. Sometime vender gives Buy-Back option at the time of new procurement.
2. Sorting: The first step in processing e-waste involves manual sorting to extract specific items, such as batteries and bulbs, for their own processing. During this stage, certain items may be dismantled by hand to recover valuable materials or components for reuse.
3. Mechanical separation: The mechanical separation of materials involves multiple sequential processes, with magnetic separation and water separation being the primary steps.
4. Magnetic separation: The e-waste is shredded and subjected to magnetic separation to extract ferrous metals like iron and steel, while non-ferrous metals are separated using eddy currents
5. Recovery: Once separated, the materials are readied for reuse and sale. Certain materials, like plastic or steel, are directed to other recycling streams. However, others can be processed onsite and sold directly, along with usable components extracted during earlier stages of the recycling process.



5. Steps for e-waste management by college campus:

The disposal of E-waste is treated on priority basis and necessary action is taken by the College accordingly.

5.1 Minimizing the E-Waste:

1. M.P.S.P.S. college Purchasing only environmentally friendly and Energy star label product.
2. College purchase products whose lifespan is longer, so that no need to replace it within a few years,
3. College staff maintaining their electronic product properly
4. computers and laptops Cleaning properly
5. Not over charged the laptops, mobiles and other electronic products so it will improve life span of product and battery
6. Taking these moves and making those simple changes, and encouraging others to do the same, will help greatly reduce e-waste



5.2 Reduce the E-Waste:

- M.P.S.P.S. college staff maintaining their electronic product properly
- computers and laptops Cleaning properly
- Not over charged the laptops, mobiles and other electronic products so it will improve life span of product and battery
- Taking these moves and making those simple changes, and encouraging others to do the same, will help greatly reduce e-waste.
- College purchasing the electronics equipment's which is genuinely need and by the extending the life span of devices through proper maintenance.



Foe Repairing and maintenance

5.3 Reuse the E-Waste:

- Some electronic waste contains components that can be reused again and again. College either take functional components for use in new electronic products or recycle whole, functional electronics products, e.g. monitors, memory cards, SSD hard drives, graphics cards and more.
- Whenever possible, consider reusing electronic devices or donating them to organisations that can make use of them.
-



Ready to reuse

5.4 Recycle the E-Waste:

- M.P.S.P.S. college taking the quotation for the different vender. College committee finalize the vender on the basis of their recycle process and e waste management system. If there really is no way to reuse or return the item, College finding a reliable local organization who will recycle it.



5.5 E- waste awareness programs in college campus:

The level of e-waste awareness in India is relatively low. Many people in the country are not aware of the importance of e-waste recycling and the potential dangers of improper disposal. This lack of awareness has a significant impact on the environment and public health. These chemicals can cause serious health problems such as cancer, birth defects, and neurological damage.

The M.P.S.P.S. college organize the e-waste awareness campaigns in college campus by N.S.S Unit.



5.6 Evaluation and Auction committee:

M.P.S.P.S. college has a committee for Safe disposal of unwanted and Damaged Material from the college campus.

Functions:

The committee Identified material (damaged / unwanted) in the campus

- Confirm its disposability by the committee members.
- Advertise / notify the sale of the material.
- Invite the quotes.
- Conduct the Auction process.
- Will decide / finalize the bid.
- Credit the amount to the concerned college account.
- Record / maintain the above documentation & conduct the process transparently.
- Utilize the generated fund for welfare of the college



5.7 International E-waste Day:

The M.P.S.P.S. college celebrated International E-waste Day on **14th October**. It aims to highlight the growing issue of electronic waste and promote responsible e-waste management.



6. Audit Report:

The audit report is a key deliverable which shows the end results of the entire audit process.

6.1 Observations:

College initiatives for E-Waste management:

- Formed Evaluation and Auction committee
- E-waste is given to the authorized vendor approved from college.
- Applying the concept of reduce, reuse and recycle.
- College was organized an awareness programme on 'Proper e-waste Disposal



6.2 Suggestions:

Don'ts:

- Do not dismantle your electronic Products on your own
- Do not throw electronics in bins having a "Do not Dispose" sign.
- Do not give e-waste to informal and unorganized sectors like Local Scrap Dealer/ Rag Pickers.
- Do not dispose of your product in garbage bins along with municipal waste that ultimately reaches landfills.

DOS:

- Always look for information in the catalog with your product for end-of-life equipment handling.
- Ensure that only Authorized Recyclers/Dismantler handle your electronic products
- Always call our toll-free No's to dispose of products that have reached end-of-life
- Always drop your used electronic products, batteries, or any accessories when they reach the end of their life at your nearest Authorized E-Waste Collection Points.
- Always disconnect the battery from the product, and ensure any glass surface is protected against breakage.

6.3 E-Waste management certification & appreciation:

