



**7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)**

- ***Solid waste management***
- ***Liquid waste management***
- ***Biomedical waste management***
- ***E-waste management***
- ***Waste recycling system***
- ***Hazardous chemicals and radioactive waste management***



**Waste generation must be minimized.** "This is not only economical equation but also environmental consciousness."

At KITS we are committed to reducing the impact on environment and minimize waste during its routine activities. The institute conducts annual recycling drives on office stationery, electronics, laboratory material, manuals, and other furniture.

**Solid waste management:**

- Waste management is helping our college, to achieve high environmental performance by initiating programs viz., go green, swatchbharath, and Harithaharam.
- All the wastage is segregated into dry and wet collected.
- The college premises have been declared as no plastic zone and litter free area.
- Separate Dustbins for recyclable and non-recyclable wastes are available in common places.
- Paperless communication (e-mail / WhatsApp communication) is one of its best practices.
- Sanitary napkin incinerator machine is available in the ladies' restroom.

**Liquid waste management:**

- Rain water flows into the final tank. The filtered water is collected in sumps and is pumped to the college garden through overhead tank.
- RO Water plant is established to convert the borewell water into mineral water
- Sprinklers are used in gardens to prevent water wastage.
- Rain Water Harvesting system and wastewater from the RO plant is also used for watering the plants

**E-waste management:**

- The obsolete equipment collected from the laboratories and other equipment like scrap is safely disposed to e-waste vendors.
- All the printer cartridges are refilled for reuse.
- UPS batteries are purchased on buy back agreement by the suppliers.
- Steps are taken to avoid CDs and encouraged to use only USBs
- Active Networking between computer terminals is established
- The low configured computers are donated to nearby schools.

Since college is located away from town waste recycling is comparatively an easy task.

Key Areas of Waste Production	Waste Produced	Action Taken
Civil Engineering Laboratories	Concrete cubes, cones, used aggregate	<ul style="list-style-type: none"><li>• Used as support to structures, on footpath,</li></ul>
Workshop	Wood waste, Iron waste	<ul style="list-style-type: none"><li>• Wood waste is used as fuel in furnace.</li><li>• Iron waste is sold for recycling</li></ul>

Mechanical Engineering Laboratories	Water Iron waste, Fuel waste	<ul style="list-style-type: none"> <li>Fuel waste is used for servicing the machinery</li> <li>Iron waste is sold for recycling</li> <li>Water is diverted to plants.</li> </ul>
EEE, ECE & CSE Laboratories	e-waste	<ul style="list-style-type: none"> <li>Attempts to reuse are encouraged</li> <li>In case of Obsolete e-waste measures, are taken to sell to e-waste recyclers</li> <li>Reuse of spare parts is encouraged Viz., RAM, Processors, Motherboards, SMPS, Hard disks</li> </ul>
Office / Exam Branch / Library	Paper waste	<ul style="list-style-type: none"> <li>Attempts to use rear side of the papers.</li> <li>Examination stationary is sold to paper recycling venders</li> <li>Confidential material is preserved or methods to dispose are taken very carefully</li> <li>Newspapers / magazines and other paper waste from library is sold for recycling.</li> </ul>
Chemistry, Environmental Engineering Laboratory	Hazardous chemicals	<ul style="list-style-type: none"> <li>routed through a separate drain to soak pit</li> <li>This pit is maintained on an annual maintenance schedule</li> </ul>
Canteen, Garden and Trees	Biological waste	<ul style="list-style-type: none"> <li>For the production of organic manure</li> <li>Wastage collected from college canteen is converted into manure in compost pits</li> </ul>



**WASTE MANAGEMENT****Waste management steps including:**

- (i). solid waste management
- (ii). liquid waste management
- (iii). biomedical waste management
- (iv). e-waste management
- (v). Hazardous chemicals and radioactive waste management



KITS practices best possible ways of managing the solid, liquid and E-Waste by performing several activities to manage waste from its inception to its final disposal. The procedures adopted are eco friendly, technically driven, economically sustained and at the same time abide by legal and regulatory norms,

**(i). Solid waste management**

Waste generated in the campus varies from paper, plastic, cloth, glass, food, and sanitary items. Their sources include AK blocks, MV block, office, and canteen. The waste that is generated from all these sources if not handled properly may pose a serious health and environmental hazards

- (i) Inspired by Swatch Bharat, Twin-Bin system is being used in the Institution.
- (ii) The process of solid waste management proceeds in the form of collection-treatment disposal. The used papers and notebooks are collected every semester and recycled. All forms of solid waste are collected by the bins placed at different locations of campus.
- (iii). Usage of plastic cups, plates are banned in the campus.
- (iv). Sanitary incinerators are installed in campus.

**PRINCIPAL**  
KHAMMAM INSTITUTE OF TECHNOLOGY & SCIENCES  
Ponnekal (V), Khammam (R) -507170  
Khammam (Dist.) T.S.

## Sources of waste

S.No	Source	Type
1.	Academic area(AK and MV blocks)	Paper, plastic, electronic items
2.	Office	Paper, plastic
3.	Labs	Wires , electronic items, paper
4.	Canteen	Food, vegetable wastes, plastics, paper

## Frequency of Waste Collection from Various Sources

S.No	Source	Frequency of collection
1.	Academic area(AK and MV blocks)	Weekly
2.	Office	Weekly
3.	Labs	Weekly
4.	Canteen	Once a day

## Daily Waste Generated

S.no	Type of waste	Weight (kg per day)
1.	Food waste	13
2.	News paper	3
3.	Paper, plastic etc.,	3
4.	e-waste	0.49 180 kg per annum



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### Liquid waste management

28 liters of waste water is produced from Mineral water plant .

Eco –friendly floor cleaners are used and waste water is checked on monthly basis. Disposal is done after treatment if necessary. The treated water is used for gardening and cleaning purpose.



### E-waste management

The institute has tie up with vendor/suppliers of electronic items to buy back and upgrade as possible. The remaining e-waste is disposed through a certified vendor on periodical basis.



  
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Khammam (Dist.) T.S.

## Hazardous chemicals and radioactive waste management

Hazardous wastes are those that may contain toxic substances generated from chemistry lab wastes. These wastes could be corrosive, inflammable, explosive, or react when exposed to other materials. Some hazardous wastes are highly toxic to environment including humans, animals, and plants. Harmful gases are sent through exhaust fans in chemistry laboratories.

Radioactive waste was generated from use of radioactivity, in many but not all cases. Scientific society has approached the management of radioactive waste differently from the management of other waste types



  
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Khammam (Dist.) T.S.

TIN No.: 36CTUPS80536123

Cell: 9052741107, 9703296341



# SRI BALAJI ENTERPRISES

(Authorised Distributors for SF Sonic Batteries, A Division of Exide Industries Ltd.)

Dealer for: EXIDE, AMARON, MICROTCH, LUMINUS, KIRAN, VEGA, POWER MAX INVERTERS & UPS

D.No. 1-8-94, Jubleepura, KHAMMAM.

No.

## GST TAX INVOICE CASH / CREDIT

**B to C**

Quotation

Date: 17/12/21

To: Kits college

Vehicle No.:

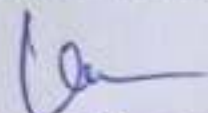
Customer Address: khammam

No.	PARTICULARS	Qty Unit	Rate Unit	Basic Total	SGST		CGST		AMOUNT	
					%	Amount	%	Amount	Rs	Ps.
	Amaron Quanta H2Ah	60	3300 • 78	1980 46 88	14%	277 26.56	14%	277 26 56	253500	00
	Scrap BTY	60	1250						-75000	00
<b>GRAND TOTAL</b>									<b>178,500</b>	

Our Bank Details :  
 Account No. : 62351981763  
 IFSC Code : SBIN0020554  
 Bank Name : SBI

Our Bank Details :  
 Account No. : 50200049638991  
 IFSC Code : HDFC0004146  
 Bank Name : HDFC

For: SRI BALAJI ENTERPRISES

  
 Authorised Signatory

Goods once sold could not be taken back.

♦ పోల్ వెరిఫైనా, బ్యాటరీ పాలిషా వారండ్ వర్తించదు.

♦ బిల్లు మరియు వారండ్ కార్డ్ తప్పనిసరిగా తీసుకురాగలరు.



GSTIN : 36BVXPM5263J1ZR

QUOTATION

Cell : 9494837928, 9397826671

# KAVITHA AUTOMOBILES

Main Road, PALLIPADU - 507 165.

Sri

*Khamman Institute of Technology Secunder* Date: *14/12/2021*

Description of Service	HSN Code	QTY	Units	RATE	Amount in Rs.
<i>Amaron Quanta 42 Amp/12V finished Battery</i>		<i>60</i>		<i>4450/-</i>	<i>2,67,000/-</i>
<i>(-) Old Battery</i>		<i>60</i>		<i>1000/-</i>	<i>(-) 60,000/-</i>
<i>price including (SGST + CGST)</i>					
				<b>TOTAL</b>	<i>2,07,000/-</i>

Bank : State Bank of India  
 IFSC : SBIN0021512  
 Name of A/c : Kavitha Automobiles  
 A/c No. 62485801315

**KAVITHA AUTOMOBILES**  
**MAIN ROAD, PALLIPADU**  
 Cell: 9494837928

TIN No.: 36CTUPS80536123

Cell: 9052741107, 9703296341



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D.No. 1-8-94, Jubleepura, KHAMMAM.

No.

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To: Kits college

Vehicle No.:

Customer Address: Khammam

No.	PARTICULARS	Qty Unit	Rate Unit	Basic Total	SGST		CGST		AMOUNT	
					%	Amount	%	Amount	Rs	Ps.
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	Scrap Bty	60	1250						-75000	00
<b>GRAND TOTAL</b>									<b>178,500</b>	

Our Bank Details :

Account No. : 62351981763

IFSC Code : SBIN0020554

Bank Name : SBI

Goods once sold could not be taken back.

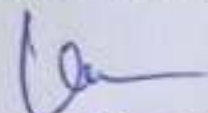
Our Bank Details :

Account No. : 50200049638991

IFSC Code : HDFC0004146

Bank Name : HDFC

For: SRI BALAJI ENTERPRISES

  
 Authorised Signatory

❖ పోల్ వెరిఫైనా, బ్యాటరీ పాలినా వారండ్ వర్తించదు.

❖ బిల్లు మరియు వారండ్ కార్డ్ తప్పనిసరిగా తీసుకురాగలరు.

TIN No. : 36CTUPS8053612W

Cell : 9052741107, 9703296341

**SRI BALAJI ENTERPRISES**

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D.No. 1-8-94, Jubleepura, KHAMMAM.

No.

**GST TAX INVOICE CASH /CREDIT**

Date: 21/12/21

**B to C**

To

KITS Colleague

Vehicle No. :

Customer Address

Khammam

No.	PARTICULARS	Qty Unit	Rate Unit	Basic Total	SGST		CGST		AMOUNT	
					%	Amount	%	Amount	Rs	Ps.
	Amaron Quanta H2 A2	60	3300 +78	198006 +88	14%	277 26.56	14%	27 726 56	253500	00
	Scoop BM4	60	1250						-75000	00
<b>GRAND TOTAL</b>									<b>1,78,500</b>	

Our Bank Details :

Account No. : 62351981763

IFSC Code : SBIN0020554

Bank Name : SBI

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Account No. : 50200049638991

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♦ విల్లు మరియు వారంటీ కార్డ్ తప్పనిసరిగా తీసుకురావలదు.