



VISWAJYOTHI

COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE New Delhi & Affiliated to APJ Abdul Kalam Technological University

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Established in 2001

Managed by Catholic Diocese Kothamangalam



4.4 Maintenance of Campus Infrastructure

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

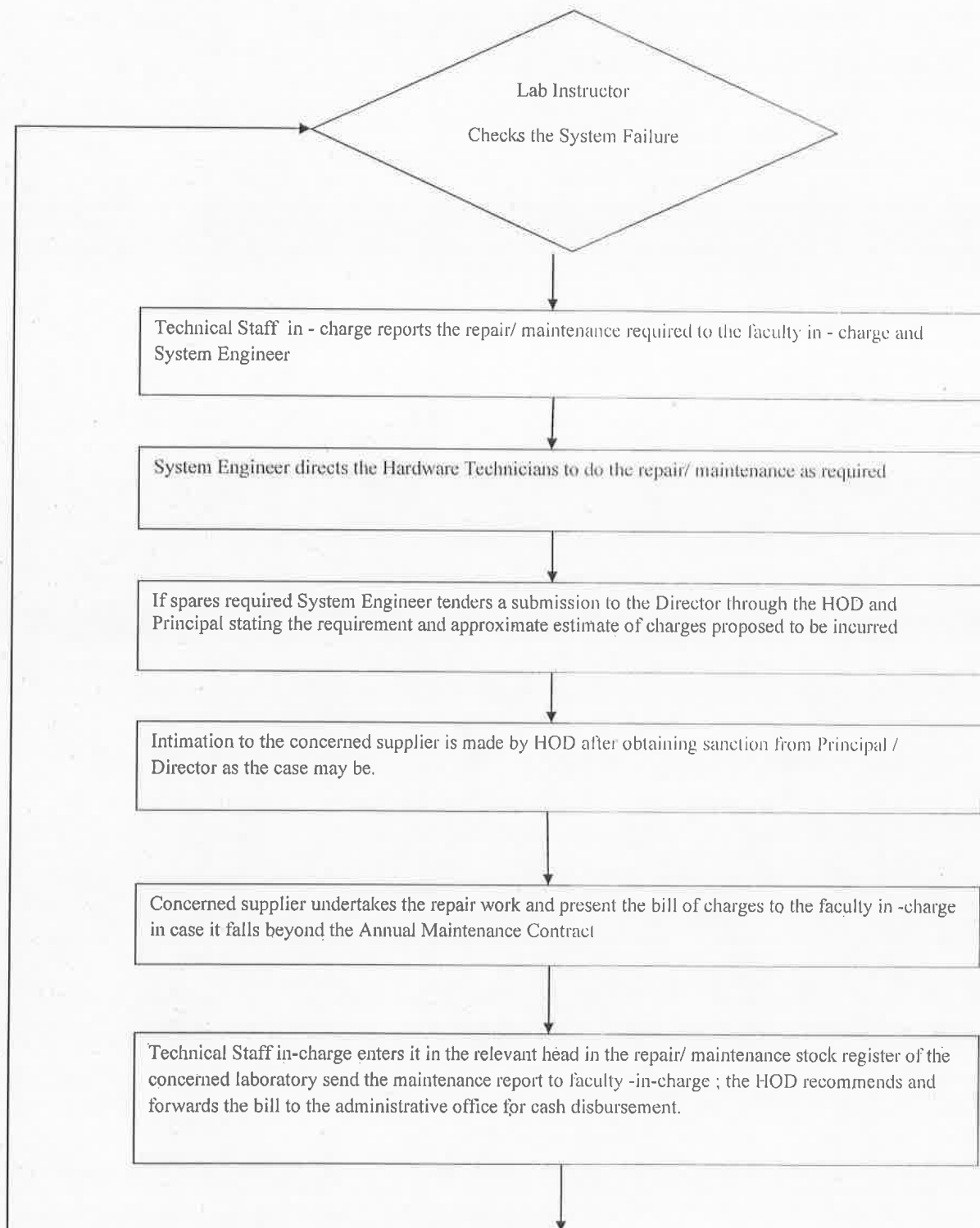
PROCEDURE FOR MAINTAINING AND UTILIZING PHYSICAL, ACADEMIC AND SUPPORT FACILITIES

VJCET has a well-established and systematic procedure for maintaining its physical, academic and other support facilities.

COMPUTER LAB

- All the labs are very well equipped with adequate number of computers with internet facility and uninterrupted power supply for various academic activities. Each lab has an overhead projector, speaker, telephone, white-board, fire and safety equipment.
- Both the Staff and Students are provided with individual login. Full time technical staff assistance is available. As per need, extra lab slots are also provided.
- Each student is allotted an individual PC comfortably arranged for the lab work .All labs are well-lit and air conditioned to conduct various lab programs.
- In case of any defect detected in any of the lab equipment, the Technical Staff in-charge informs the faculty in-charge and System Engineer.
- System Engineer directs Hardware Technician to do the service/repair. If it cannot be done in-house, tenders a submission to the Director through the concerned HOD and Principal, before contacting the service agent for repair.
- On return of the repaired equipment, the Technical Staff in-charge receives the bill and notes it down on the relevant register. He then sends the report to the faculty in-charge who after getting it approved by the HOD, submits the same at the administrative office for payment.
- If any equipment is found beyond repair by the service agent, it is documented in the scrap register maintained in each department as well as in the remark column of the stock register.

Process for Conducting Maintenance and Repairs of the Computers in the Labs and Departments



WORKSHOPS AND LABORATORIES:

Maintenance schedule for Workshops and Laboratories

Two types of maintenance are implemented regularly in all the Workshops and Laboratories. The procedure adopted is as listed as below:

1. Preventive Maintenance:

The procedure undertaken is as follows.

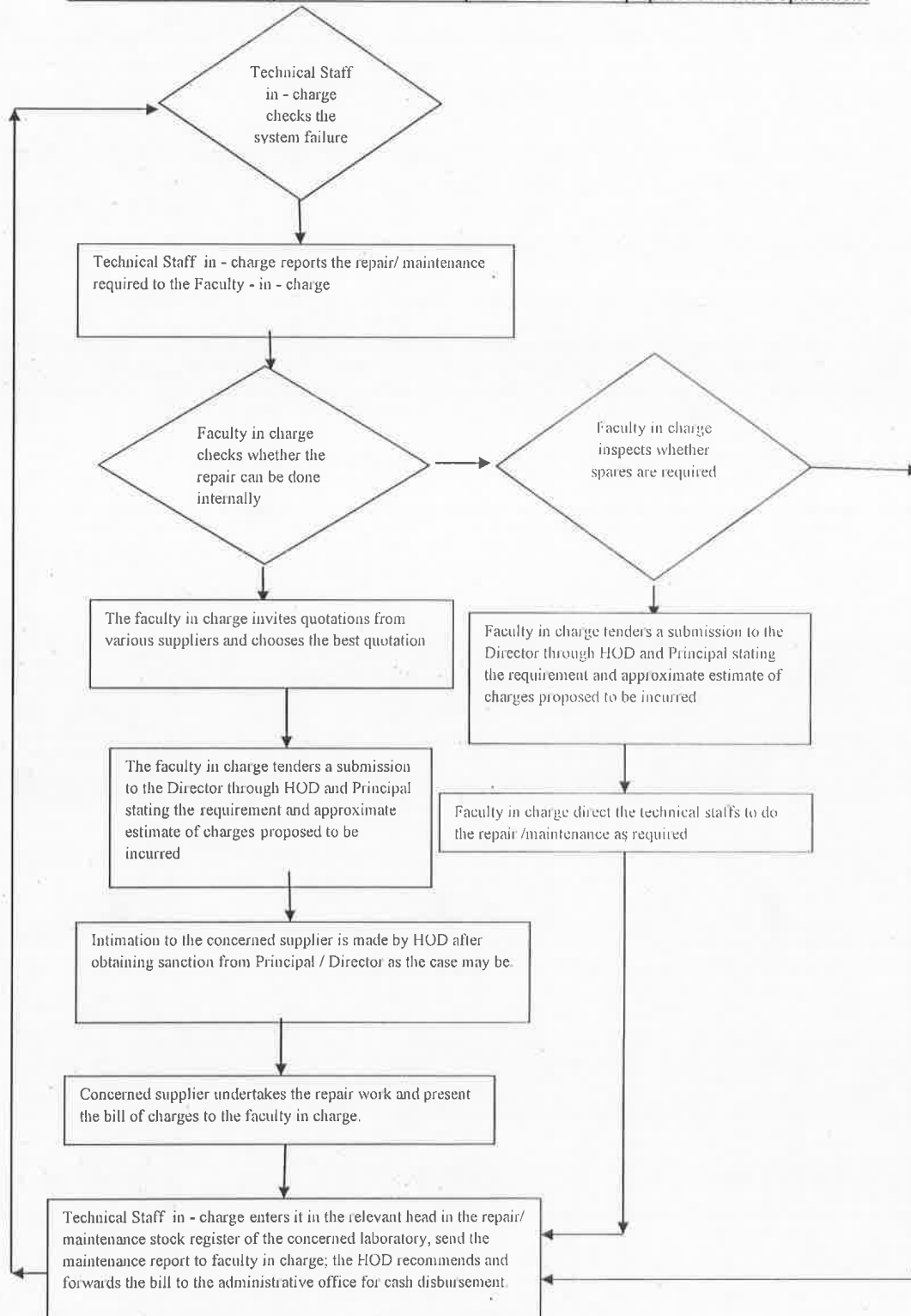
- (i) Checking of all moving and sliding parts.
- (ii) Cleaning and lubricating of the same.
- (iii) Conducting minor repair works, if required.

2. Breakdown Maintenance:

This procedure is undertaken whenever a breakdown is reported.

- (i) Concerned technical staff- in - charge reports any faults to the technical officer/ faculty- in-charge.
- (ii) Faculty-in-charge entrusts the technical staff- in-charge to conduct the repair works to the extent deemed possible in the laboratory itself using available expertise.
- (iii) If the matter is beyond the scope of internal handling, it is reported to the Principal through the Head of the Department.
- (iv) With the necessary permissions and sanctions, repair works are arranged through external sources.
- (v) Service bills if any are forwarded to the authority concerned.

Process for Conducting Maintenance and Repairs of the Lab equipment in the Department



LIBRARY:

A well-equipped and well-managed library is the foundation of a modern educational structure. Education and library service are twin sisters and one cannot live apart from the other. A modern trend of education is to develop a thinking individual who should prove to be self-reliant in every walk of life. A modern library is popularly known as Library and Information Centre, Resource Centre, Knowledge Centre, Learning Resource Centre and Currently NAAC has termed it as Learning Resource Centre.

Procurement of Learning Resources

Procurement of Books:

A Library can procure books and other documents through the following methods:

- Purchase
- Gifts/Donations

Every year the management of the Institution allots budget for the Library for purchase of books and subscription for journals. The allotted budget amount is distributed to procure books and journals both printed and e-journals among all departments according to their requirements or as per compliance report of the University or AICTE. Sometimes the procurement of books is arranged when a books exhibition is held in the college. As per the request of concerned department HOD's new editions of the books, newly published books, the books which are not available in the library, which is found very useful to students and staff are procured directly from the vendor.

Procurement process:

- Initiation of Acquisition:
- Receiving recommendations in prescribed format
- Cross checking
- Quotations are called for from leading suppliers
- On the basis of quotations, a comparative statement is prepared
- Put up for approval from Principal
- Forwarded to the college office for the preparation and issue of purchase order.

Accessioning:

- Receive books from suppliers
- Cross checking with purchase orders
- Checking the physical conditions
- In case of damages/missing pages send back for replacement and ensure replacement of damaged books.
- Books are arranged as per the same order of invoice

- All particulars of the books and invoice are entered in the accession register. It includes author, title, name of the publisher, year, volume, edition, call number, invoice number and date, price etc.
- Each book is given a unique accession number.
- The accession number is entered on the title page of the book, secret page of the book and last page of the book and also random pages of the book, and book card, date label.
- The same information is entered in the library management software also.
- On the basis of acceptance and approval by the concerned authority, the invoice is forwarded to the finance section for payment.
- Maintain invoice file.

Technical Processing of the books

a. Classifying:

- Classify Books as per Dewey Decimal Classification (DDC) schedule
- Assign book number
- Write the class number and book number on the due date slip, book card and spine.

b. Cataloguing:

- Bibliographic details of each book are entered into the cataloguing module database according to AACR2 standards.
- Catalogues are available on Web OPAC

Physical Processing of Books

- Stamping – Library stamp to be put on the title page, on a secret page, on the last page and on random pages.
- Paste barcodes on the front page, on the first page and laminate it with cello tape.
- Send the completely ready new books to the new arrivals display rack.
- Information about new arrivals may be uploaded on library website and web OPAC

Vendor follow up

- Titles not supplied
- Reminders to suppliers fortnightly (through telephone)
- After checking the inability of one supplier, redirecting the order to another supplier.

Procurement of Journals

- Journals and magazines are procured based on the recommendations from the department authorities.
- Journals are subscribed through publishers and reputed agencies arranging the payments and the magazines are subscribed through the local suppliers.
- Journals are divided into Indian and Foreign origin. A journal register is maintained with the details of the journals. The details of each journal are entered into the library software.

- When each journal is received, it is given a unique number. Date of receipt is also entered and a library stamp to be put on the front page, first page, last page and then placed in the pigeon- hole rack (magazine rack).
- The back volumes of journals and technical magazines are bound and classified and arranged according to their call number in the reference section for the future reference.

E-Resources

- E-Journals, E-books, E-databases etc. are the resources available in the electronic form.
- E-resources subscription and payment could be made through publisher's exclusive agents.
- Accessible through institutions IP.

Maintenances

- Book binding- no separate binding section in the college library. The work may be outsourced.

Circulation Section

- The circulation section is responsible for the following items of the work:
- Registration of readers
- Issuing and return of books and other reading materials
- Sending reminders for overdue books

At the end of the semester, prepare a library fine (dues) report and submit it to the office and keep it in the library file with the principal's signature.

- Reservation of Books
- Maintaining the circulation statistics.
- Take a print out of the daily transaction report and keep it in the file.
- Assisting the users to access web-OPAC

Issue/Return Procedure:

Issue/renew/return of library material is a routine operation of the library.

While issuing

- Quickly glance through the book for any damage
- Scan the barcode to capture the details of issuing/renewing books in circulation module of Library Management Software.
- When books are issued, the due date, as and when the book has to be returned, is stamped on the due date slip and the book card is removed from the book pocket and inserted into the borrower's card.

While receiving the books:

- Quickly glance through the book for any change/damage.

- Check due date for necessary action
- Return the book from user account (scan the barcode to capture the details of returned books in circulation module)
- Take the Book card from the borrower's card and insert it into the book pocket and return the Borrower's Card and store the books in the return counter
- Send them to the stack for shelving.

Stock Verification:

Stock verification is an annual process. It discloses the position of the loss of documents so that the replacement may be made in case of important documents lost. It helps in planning the method to provide adequate safeguards to check future losses. The verification has to be carried out by a team of members appointed by the Principal. They verify the entire collection with a laptop and bar code scanner. Library users can browse the entire collection because misplaced books are restored in their original place and this result in the rectification of stock.

In the case of loss of library documents reported after physical verification, a loss of five library documents for every one thousand library documents consulted and issued on loan shall be considered as reasonable loss and the same could be written off with the approval of the Director.

Circulation service:

The state of the art VJCET library follows a Barcode based issue return process since its inception. Barcoding facilities are important for easy and foolproof issues, return and stock verification of library documents. For barcode based issue return process all the library documents are barcoded on the basis of its accession number. At the time of issue, staff at the counter just scans the borrower's bar-coded membership number (same as admission no.) with a scanner and displays his/her borrowing status on the computer screen.

Reference service

The Library maintains a separate reference collection consisting of Encyclopedias, Dictionaries, Handbooks, Technical data, atlases, CDs, Project reports, and Seminar reports. The previous year university examination question papers, Syllabi of courses conducted by this college and journals and technical magazines are also made available in this section. Reference books are marked "R". Normally the reference books and periodicals will not be issued out of the library. However, on rare occasions, the reference books may be issued to the students and faculty for overnight reading or one or two days in exceptional cases with the permission of the librarian.

Newspaper clippings

The library subscribes to 11 newspapers. The news regarding the achievements, events etc. of the college available in the newspaper, it may be photocopied and arranged in the library paper clippings file and also uploaded to the institutional repository for the use of readers.

Reprographic service

The library provides photocopying facilities allowed within the copyright rules. Any reference from books/periodicals of the library if needed by the faculty members and the students found to be important can get it photocopied without spending their valuable time outside at a nominal cost (50 ps.) Print out of e-resources can also be provided if required.

Internet service

The Library provides the following internet service to users

- Web site
- Web OPAC
- Email services
- E-Journal access
- NPTEL
- DELNET
- National Digital Library

Document delivery service:

Collect the assignment/seminar/project references/ enquiries from students and deliver the document by email.

Current Awareness Service:

Inform the Heads of the department regarding recent training programmes/webinars, new catalogues of different publishers etc. by e- mail. Content pages of each journal are stored in the Digital Library.

Library Orientation:

Every year the library conducts Library orientation programmes for new comers in order to make them aware of the library facilities available for them. Besides this, these awareness programmes shall be conducted on request by users from time to time. The main aim of the orientation programme is to introduce the library services and resources to a newly joined member in the library and provide hands-on training in the use in OPAC, Digital library and accessing E-resources.

HOSTEL

- Viswajyothi provides excellent residential facilities for staff and students. Gents' hostel and ladies' hostel are located in the campus itself.
- The hostels and hostel facilities are of high quality and well equipped. The boys hostel can accommodate 450 boys and the girls hostel 350 girls respectively.
- The rooms provide most modern facilities and privacy. Both the hostels have mess facilities for students. The refectories are spacious, highly hygienic and elegant. Internet and Computer Facilities are also available in the hostel.

Maintenance Procedure

- Hostels are under the control of Management. Warden of Gents hostel is a Priest and the girls' hostel matron is a Nun from CMC Province. Members of the teaching staff are appointed as Resident Tutors in the hostel.
- Attendance marking is automated (punching system). Students have to punch in the morning and evening. At night roll call is also there. Apart from warden, separate charges are there for each year students.
- If any student violates discipline strict action is taken and if needed corresponding Group Tutor/HOD is informed. Complaint register is available in which students can note complaints related to available facilities.
- If a student is sick/staying in a hostel on working days it must be informed to the warden and noted in the register. Students must inform and write in the register when they go home.

PHYSICAL EDUCATION:

The college takes utmost care in the physical and emotional well-being of the students through specific development programmes and activities. Physical Education has been an integral part of the college providing essential and efficient programmes for the student development and health enhancement.

Over the years, the Physical Education section has been successful in providing platforms for the students to exhibit their skills and sportsmanship. The college is also endowed with several achievements in both regional and state level championships. The college has commendable infrastructure facilities including

- Stadium (Football, Athletic track and Cricket)
- Multi-functional Outdoor synthetic court (Basketball, Volleyball)
- Gymnasium (Aerobics, weightlifting)
- Table tennis
- Basketball court
- Volleyball court
- Cricket nets
- Indoor badminton courts

Gymnasium

As a part of the health enhancement programme, special attention in weight training is given. Technical advice and specific training schedules are also given to each student.

Intra College Events

College has a house system for intramural competitions. Every year the college conducts an athletic championship "DRONA" where each house participates under the leadership of their respective house captains. This event is conducted in full spirit and support from the staff members and management.

The college has also conducted special coaching camps for Basketball, Volleyball, Football and Cricket. Our basketball and Volleyball teams exhibited remarkable performance in the KTU Inter Collegiate tournament and other tournaments

Social awareness Programmes

With the initiative of the National Service Scheme, Volleyball matches and Cricket tournaments were conducted to promote anti-narcotics awareness.

Magnum

Every year, the college conducts an all Kerala basketball tournament. This is a prestigious basketball tournament with participants from several reputed Institutions all over Kerala. However, this year the College was not able to conduct the tournament owing to the Global Pandemic

Fitness room maintenance

Extra measures are taken considering the safety and care of the people. Special effort is taken to lubricate and oil the machines. Regular checkups are done on the machine strings to confirm the strength and balance. A preventive maintenance and care protocol are ensured every three months so as to avoid any problems in the future.

Extra care is taken to maintain a healthy environment and to provide a hygienic ambiance to the students. The gym equipment is kept clean and tidy. Students are encouraged to remove any dirt or sweat so that the next person in line can use the equipment without any inhibition.

Multi-purpose synthetic courts

An extra protective coverage is constructed around the basketball post so as to protect the players from any injury. Annual pressure watering is done on the court surface. Regular checkups are done to confirm the wellness of the area and if any crack or crevices are found, they are sealed immediately.

Multipurpose grassland

There are separate sewage pathways so as to channelize extra water, especially in the rainy season. Weeds are removed periodically and protruding tree branches are cut down. During the summer season, grasses are cropped and the courts are leveled. Moreover, trees are planted around the courts so that the spectators can enjoy themselves in its shade.

MAINTENANCE PROCEDURE OF FIRE EXTINGUISHERS:

- Any pressure decrease, emptying or physical damages are reported to the safety officer by the concerned staff.
- Safety officer / safety committee members inspect all fire extinguishers.
- Forward request and estimate for yearly maintenance and avail sanction.
- Invite quotations for yearly maintenance and refilling.

- Arrange servicing and refilling through lowest quotation form.
- Submitting the bills and settling the account.

MAINTENANCE PROCEDURE OF UPS:

- The UPS are under AMC
- Yearly four times preventive maintenance will be done.
- If any complaint occurs in between, the Service Engineer will attend the issue and rectify the problem on a call basis.
- Some UPS are not under AMC, they are maintained yearly twice by external technicians.

MAINTENANCE SCHEDULE FOR AIR CONDITIONERS:

Periodical checkup is done once in every month by the staff in charge.

- Check the electrical switches and connection.
- Check the cooling level.
- Check the vents for dust deposition.
- Check the overall performance.

Repairs against faults.

- Defects if any are reported to the staff in charge by the concerned staff.
- Attend the machine, check for the defect.
- Repair all minor defects.
- Report the faults which are beyond our capacity to the PRO and arrange the works through an external agency.

SOLAR POWER PLANT:

VJCET has a solar power generation of 280kWp installed capacity worth 1.6 crores which annually produces 365000 units per year. Power generation readings are taken daily and panel cleaning is done monthly. As it is under warranty period all the complaints are met by the provider. Timely cleaning of the solar panel is done properly.

TRANSPORTATION FACILITY:

The college bus committee makes proposals and decisions taken by management are implemented. A driver is assigned to each bus and he has to report all the maintenance related works to PRO. Preventative maintenance is performed which includes fuel and fluid level checks. Breakdown maintenance is also carried out for worn-out components by sending for repair or replacement. Vehicle records with all maintenance tasks performed and vehicle miles are maintained.

FACILITIES & MAINTENANCE:

For the smooth functioning of the college all the work related to repairs, maintenance, upkeep and beautification of the campus is done by the repairs and maintenance section working under the supervision of a work supervisor.

Electrical Works

A permanent staff member is assigned to do the electrical work with reference to the complaint register and other electrical related maintenance work is assigned to a daily worker. A register is kept for entering the works done by him.

Plumbing

A labourer on daily wage is doing all the maintenance work related to plumbing. A book is kept for entering the details of work done by him.

Upkeep and Beautification of Campus

For the purpose of upkeep and beautification of campus some staff are working under daily wages. The work is divided based on their skill and expertise. Number of workers per day depends on the amount of work to be done.

Carpentry

All carpentry works are done on daily wages

Painting

All painting works are done properly on daily wages.

Civil Works

All the civil maintenance works are done by a mason as per the requirements under daily wages.

Water Distribution System

The total water requirement is met with the help of two water sources, a natural pond and a dug well. Water is pumped from the well to an intermediate concrete storage tank of 3 lakh litre capacity in the campus. From the above storage tank or from the natural pond, water is pumped to an overhead tank of 2.5 lakh litre capacity from which water is supplied through gravity flow to the entire campus. The water from both sources is of excellent quality and is in conformation with drinking water quality standards specified by BIS and WHO. All the tanks are timely and properly cleaned.

Waste Management

There are sorting stations for itemized segregation of recyclable waste and proper handling of non-recyclable waste. Solid waste management involves organic waste processing using the

Biogas Plant. For treating the liquid wastes generated, a Sewage Treatment Plant with High Pressure Sand Filter and Activated Carbon Filter has been installed in the campus. The entire treated water is used for watering the gardens and lawns maintained in the campus and agricultural purposes in the hostel. The sludge settled in the STP is removed, dried and used as manure for the gardens.

Books and Registers

- Attendance Register

An attendance register is kept for the purpose of entering the attendance of each and every daily wages worker to calculate wages.

- Cash Book

A cash book is maintained for entering all details related to wages of workers and wages drawn by workers.

- Complaint Register

A complaint register for maintenance is kept at the main office, ladies hostel, boys hostel and STP. By checking the books daily, all the complaints are redressed according to the importance and preference of work.



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