CLEAN AND SMART CAMPUS AWARD-2019
QUESTIONNAIRE

1. What all approval/ authorisation do you have for the institute from pollution control board/ statutory bodies?

    a. NONE
    b. E-WASTE RULES 2016 CLEARANCE
    c. HAZARDOUS WASTE RULES 2016 CLEARANCE
    d. SOLID WASTE RULES 2016 CLEARANCE
    e. BIO-MEDICAL WASTE RULES 2016 CLEARANCE
    f. AIR ACT 1981SU
    g. WATER ACT 1974
    h. ENVIRONMENT PROTECTION ACT 1986
    i. OTHERS - PLEASE SPECIFY

For educational institutional buildings, it is necessary to ensure sustainable environmental management, solid and liquid waste management, rain water harvesting and may use recycled materials such as fly ash bricks.

"Institutes to tick options if such approvals have been taken from local statutory bodies/ pollution control board. The approval/ authorisation should be valid in continuation and shall not be considered after cut-off date of 31 May 2019."

"Segregation of waste is a part of best practices and enables in not only correct disposal but also ensures better monitoring and control of resources at the start of process cycle. The measurements should be appropriately recorded for (at least) the last three months and records must be shown to experts during the visit."

2.A. Is the segregation & measurement of different types of solid waste generated on campus being done?

    a. YES. SEGREGATION & MEASUREMENT FOR EACH TYPE OF SOLID WASTE IS UNDERTAKEN.
    b. PARTIAL. NO SEGREGATION, BUT TOTAL SOLID WASTE GENERATED IS BEING MEASURED.
    c. NO. NO SEGREGATION/ MEASUREMENT UNDERTAKEN.

2.B. If the answer to 2.A is YES, kindly provide the average per day per head quantity of waste generated for the following categories:- (To be arrived at from recorded data of minimum of last three months)

a. DRY WASTE (E.G. PAPER, PLASTIC) _____ KGS
b. WET WASTE (E.G., CANTEEN, MESS) _____ KGS
c. TOXIC WASTE (E.G., PESTICIDES, LAB) _____ KGS
d. OTHERS (IF ANY)

TYPE_____ KGS_____
TYPE_____ KGS_____

2. C. If the answer to the 2.A is PARTIAL, then what is the per capita average daily solid waste generated in your campus in the last three months (i.e. Mar to May 2019)?

a. 0-500 GMS/DAY
b. 500-1000 GMS/DAY
c. MORE THAN 1000 GMS/DAY

"The average waste per head per day in totality indicates the need for an institute to apply stricter monitoring and control to minimise the misuse. The institute can build the standard deviation ratio around the mean value to map the outliers and ascertain such causes to contain the 'loss'. "

"The per head per day waste generated indicates the slippages in the estimation of the resources. A sustained practice can help optimise resources, foresee peak demand and sustain the inventory/ reserves within the institute. Ideally, this average should be calculated over a sustained period of 12 months however for the purpose of this award the average of preceding three months should be presented based on the data so recorded. The experts should be shown the relevant records."

For the questions 2.C. in order to calculate average daily solid waste, the data of at least last three months is to be used. The average waste is to be divided by the average population for per capita figure.

For the questions 2.B. In order to calculate average per day per head quantity, the recorded data of at least last three months is to be used. Per day average of each category is to be divided by the one day average population of the institute to arrive at the per capita figure.

3

3.A. Does the institute have a dedicated staff for waste collection or disposal?
a.   No
b.   YES

"The staff should be dedicated only to waste management and should be identifiable from other staff. The visiting evaluators shall verify their work process, attendance, training, skill etc. in handling of waste."

3. B. Does the institute segregate its solid waste at the source of the generation?
a.   No
b.   YES

"While segregation is important for better disposal, it is also essential that the student and staff are made aware of this necessity at 'origin' rather than doing the exercise separately prior to 'exit' from the premises. Colour Coding of bins for segregation is being implemented widely. Experts should be shown such facility during the visit to the campus."

3.C. What in-house disposal facilities are used by the institute to dispose off the solid waste:
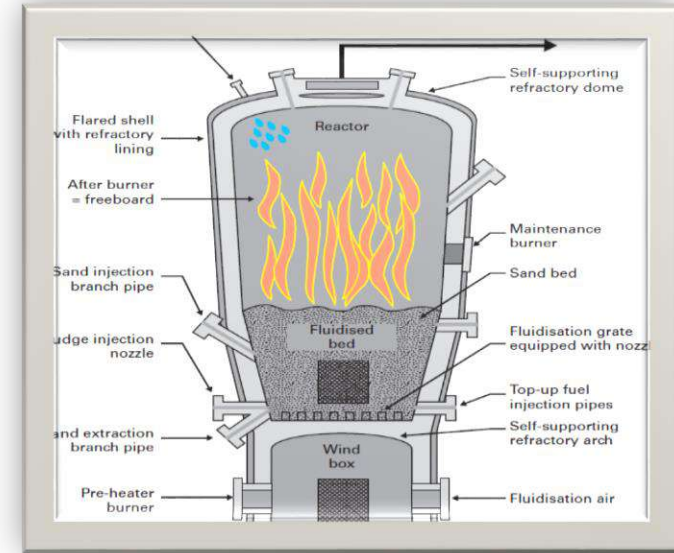
a. NONE
b. COMPOSTING UNIT
c. BIOGAS PLANT
d. BIO METHYLATION PLANT
e. ORGANIC WASTE CONVERTER
f. INCINERATORS
g. SANITARY LANDFILLS
h. OTHERS – PLEASE SPECIFY
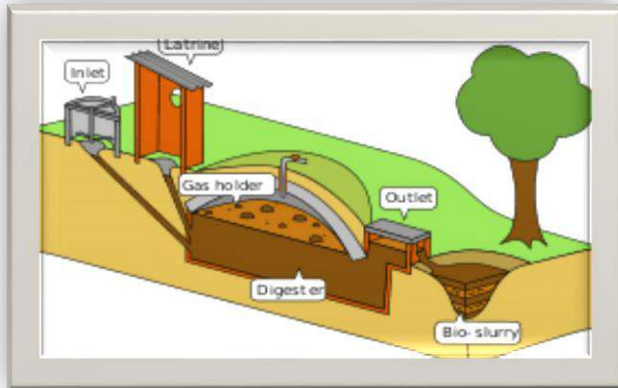
ORGANIC WASTE CONVERTER
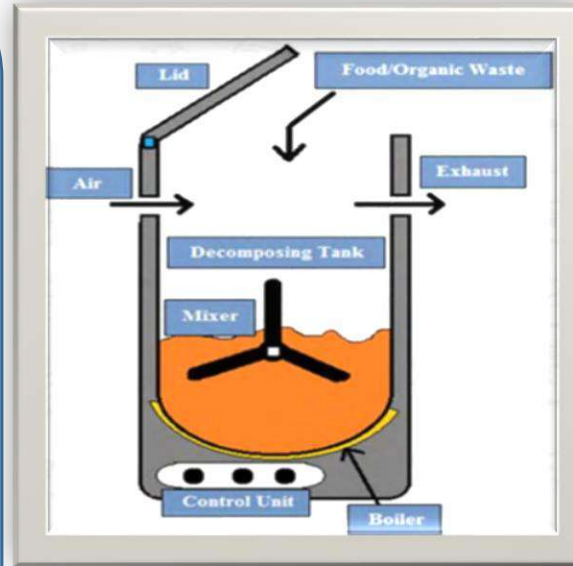
A **WASTE CONVERTER** is a machine used for the treatment and recycling of solid and liquid refuse material
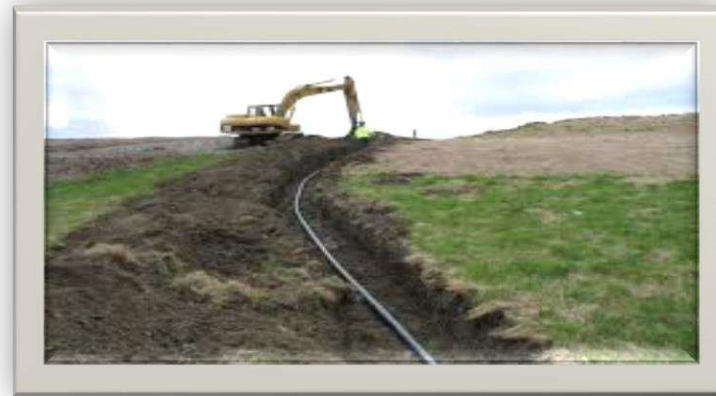
INCINERATOR

The **INCINERATOR** should be fully operational. However, its use should be measured the quantity of waste generated as the smoke emission and ash are damaging by products

BIO GAS PLANT

The **BIOGAS PLANT** should in use for at least last three months and operational daily .At least 90% of the wet waste) should be put in the biogas plant

SANITARY LANDFILLS

The **SANITARY LANDFILL** should be owned/rented by the institute and use of the same should be done strictly for the disposal of campus waste. It should not be the same as the municipal council's sanitary landfill.

COMPOSING UNIT
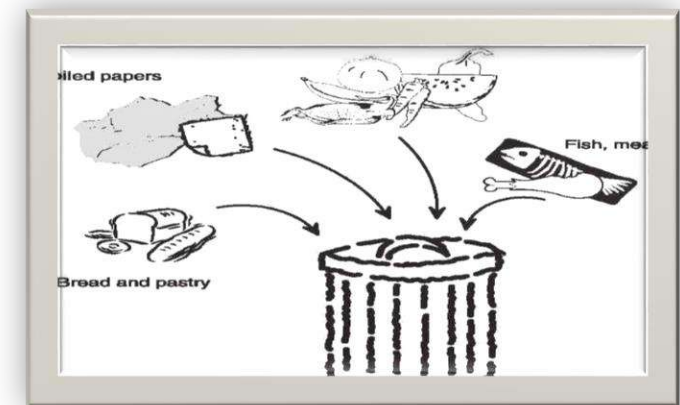
COMPOSING UNIT IS OPERATIONAL AND SHOULD BE VERIFIED BY EXPERTS AS PER VISIT

5

4. In case an in-house solid waste disposal facility is not available, then select the external agencies used by the institute to dispose off the solid waste:
a. MUNICIPAL CORPORATION
b. PRIVATE CONTRACTOR
c. OTHERS – PLEASE SPECIFY

"Where ever in house facility is not available, the waste from the institute should be disposed off in a responsible manner through nominated agency. The private contractor should be interfaced with the experts for interaction. Also the landfill site may be shown on google maps to the experts."

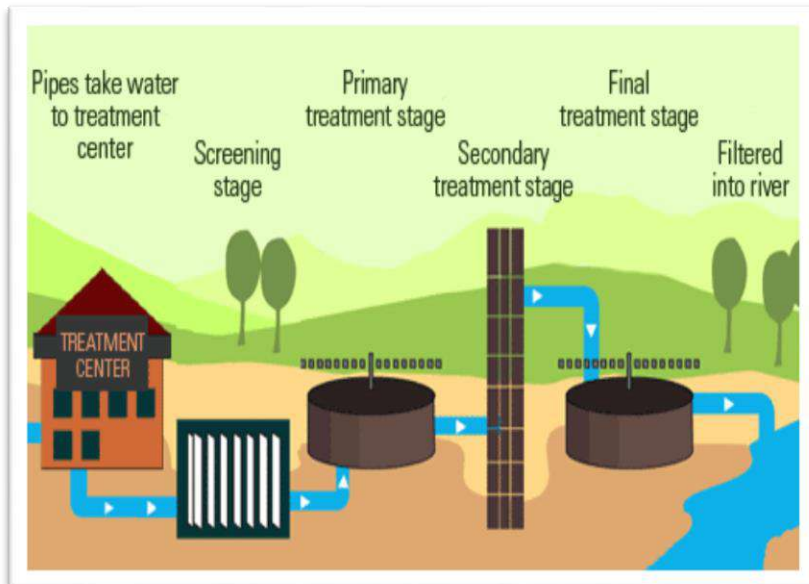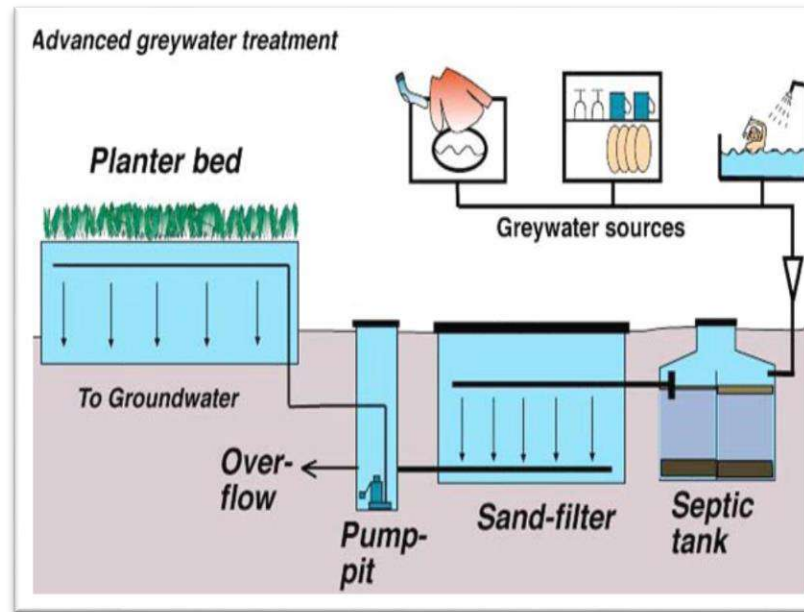**5. Does the institute have any green club/sustainability cell?**
a. No
b. YES

"The green club/sustainability cell should be operational for the past academic years wherein and the cell should have done programmes/ activities linked to sustainability-related activities. Records are to be presented to experts for their evaluation."

6. How does the campus waste/sewage/effluent disposal system function?
a. NO SEPARATION OF DISCHARGE. THE DISPOSAL IS COMMON.
b. SYSTEM SEPARATES GREY AND BLACK WATER

Advanced greywater treatment

Planter bed

Greywater sources

To Groundwater

Over-flow

Pump-pit

Sand-filter

Septic tank

Pipes take water to treatment center

Screening stage

Primary treatment stage

Secondary treatment stage

Final treatment stage

Filtered into river

TREATMENT CENTER

"Blackwater in a sanitation context denotes wastewater from toilets, which likely contains pathogens, faeces, urine and toilet paper etc. from flush toilets. Blackwater is distinguished from greywater, which comes from household use other than toilets. Greywater results from washing food, clothing, dishes, as well as from showering or bathing. Compositing of the toilet waste can be easily treated by means of various compositing method or an in house Sewage Treatment Plant. Merely having a STP is not sufficient unless it is functional. Hence the evaluation by experts will be undertaken for this accordingly."

7

7. Does the institute recycle waste water?
a.   NO
b.   YES

"The recycling system should be able to recycle at least 25% of the generated wastewater. Measurements/ recording of the functional system shall be scrutinized by the expert for evaluation".
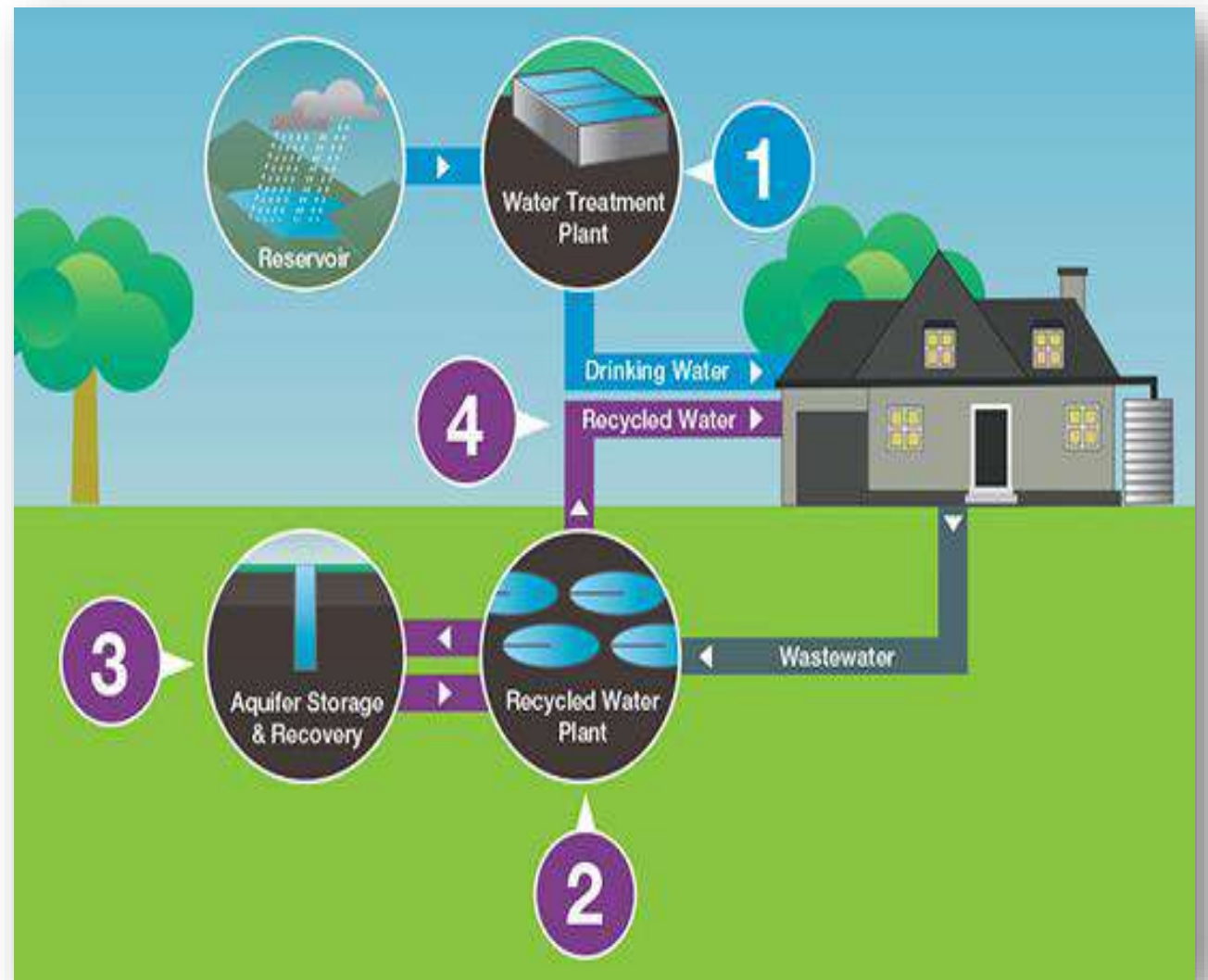
8. How does the institute use recycled water?
a. DUAL PLUMBING – FLUSHING
b. GARDENING/ ARBORICULTURE
c. VEHICLE WASHING (VEHICLES INCLUDE INSTITUTE CARS, BUSES AND SO ON)
d. OTHERS - PLEASE SPECIFY

Dual plumbing/grey water system

high level grey water storage tank

grey water supply

grey water collection

grey water filter

"The experts may be briefed about the dual plumbing system as applicable. Other usage may be explained to experts for evaluation"
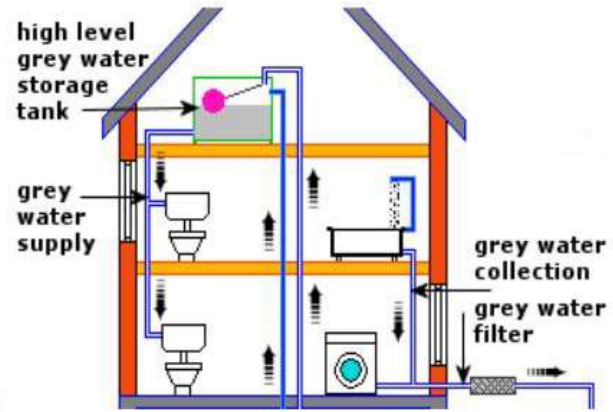
9. What percentage of Wastewater recycling is being undertaken on the campus?
a. NONE
b. UPTO 25%
c. 25% - 40%
d. ABOVE 40%
e. MORE THAN 60 %

"The entire quantum of waste water cannot be fully recycled. Hence the institute is required to provide a judicious estimate of the recycled water being used in their campus for different purposes as indicated in previous question."

10. A. Does the institute use water-efficient appliances on the campus (e.g., using sensors/automated handwashing taps, high efficient toilet flush, etc)?
a.   NO
b.   YES

10.B. If yes, please mention the types appliances:
_____
_____
_____
_____

"Water efficient appliance can help save substantial amount of water by regulating the release/ rate of flow."

"The experts should be conducted in the campus and indicated the various types of devices that help in energy conservation."

11. What is the percentage of energy efficient appliances in the campus (to include star-rated appliances, LED light bulbs, sensor based automatic light etc.)?
a.   0 – 30 %
b.   30 – 50 %
c.   50 – 80 %
d.   80 – 90 %
e.   90 – 100 %

12. Which of the following renewable energy source(s) is/are present on the campus? (You may select one or more from the following answers)

a. NONE
b. SOLAR POWER
c. BIODIESEL
d. CLEAN BIOMASS
e. GEOTHERMAL
f. WIND POWER
g. HYDROPOWER
h. COMBINE HEAT AND POWER
i. OTHERS (PLEASE SPECIFY_____)

"The renewable source of energy has many linked advantages that includes the generation of carbon credit. Some of these options can also be leveraged to supply energy to the grid as well. A mere model or lab version shall not be considered for the evaluation unless the system is utilised effectively and its contribution is substantial. The experts shall thus evaluate the system on the campus for its functionality and effectiveness."

"The institute should produce relevant record/ documents such as bill for previous year etc. to verify the veracity of their claim. A comparison table in form of No of units & bill paid showing relative reduction in commercial electricity consumption shall assist the expert in evaluation."

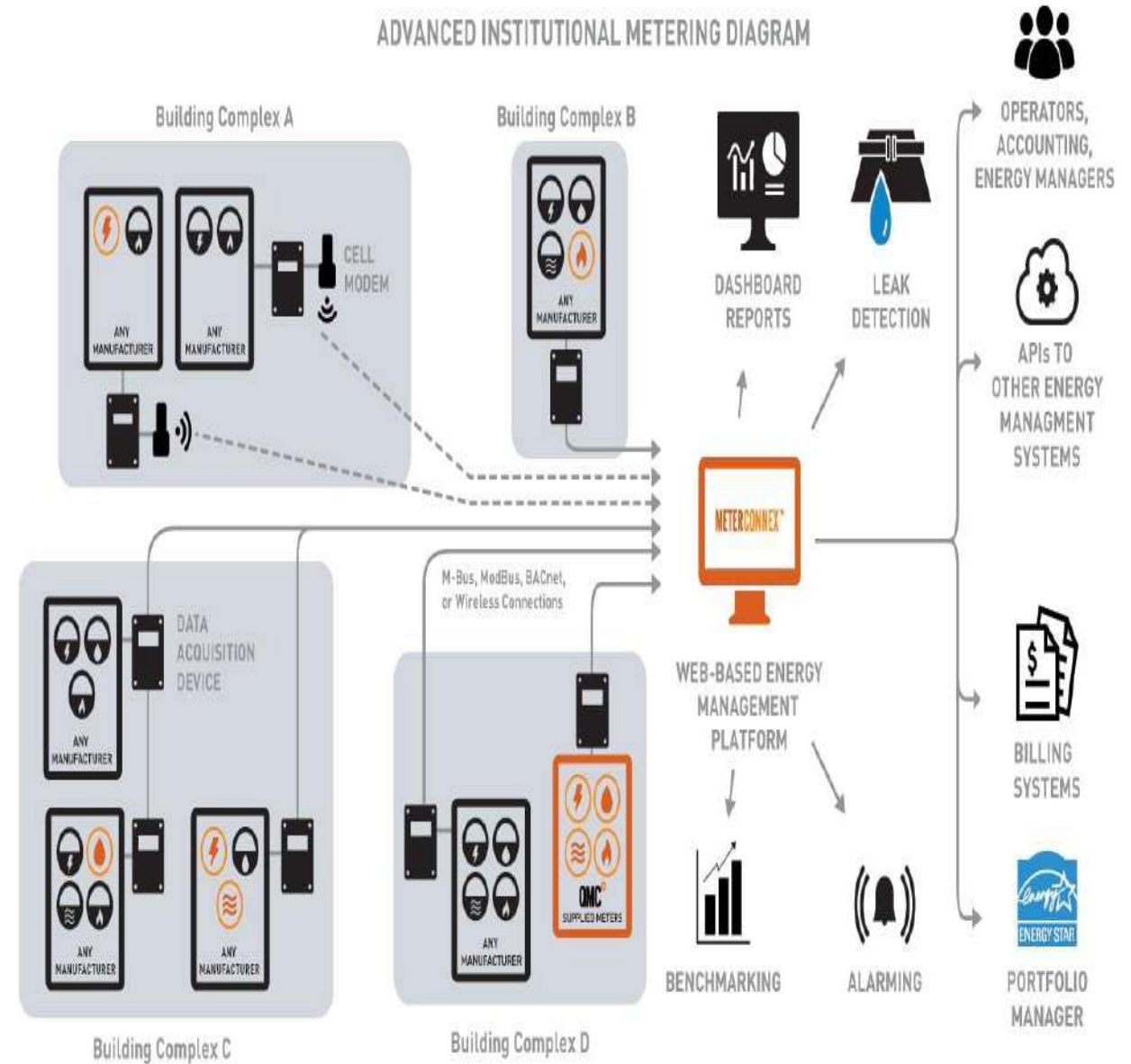**13. What percentage of total electricity use is drawn from renewable electricity?**

a. NONE
b. 1% - 25%
c. 25% - 50%
d. 50% - 75%
e. MORE THAN 75% .

14. A. Does the campus have a sub - meters to monitor and assess the resource consumption patterns of major work areas (e.g. Mess building, hostel, administrative blocks etc.)?
a.   NO
b.   YES

"While, the central meter will be installed by the electricity department, the institute management can install sub-meters to monitor & control the electricity consumption. Based on the same, seasonal consumption patterns/ charts can be prepared which can assist in optimization of various activities, shift timings, lab usage etc. Various sub-meters should be shown to the experts along with the recording made for at least last three months."

ADVANCED INSTITUTIONAL METERING DIAGRAM

Building Complex A

Building Complex B

CELL MODEM

ANY MANUFACTURER
ANY MANUFACTURER
ANY MANUFACTURER

DASHBOARD REPORTS

LEAK DETECTION

OPERATORS, ACCOUNTING, ENERGY MANAGERS

APIs TO OTHER ENERGY MANAGMENT SYSTEMS

DATA ACQUISITION DEVICE

ANY MANUFACTURER

M-Bus, ModBus, BACnet, or Wireless Connections

METERCONNEX

WEB-BASED ENERGY MANAGEMENT PLATFORM

BILLING SYSTEMS

ANY MANUFACTURER
ANY MANUFACTURER

QMC SUPPLIED METERS
ANY MANUFACTURER

BENCHMARKING

ALARMING

ENERGY STAR

PORTFOLIO MANAGER

Building Complex C

Building Complex D

14. B. If answer to above is 'YES', is the energy metering system made 'online' where the consumption pattern can be seen in real/ near real time through a dashboard?
a.   NO
b.   YES

"The 'smart' energy meters are now available commercially. The Advanced Metering Infrastructure solution (AMI) meters provide effective utilization and management of metering data, automatic management of meters, two-way communication with meters using GPRS etc. Per unit cost of this is approx. Rs 2,500/=. The implementation of these meters should be logically concluded by networking them with accessibility via web on a dashboard interface. The experts shall scrutinize and evaluate the scope accordingly."

13

14.C. If answer to above is 'YES', has any mobile app been developed for viewing the dashboard on smart phone?
a.   NO
b.   YES

"Developing an application for mobile is relatively simple and students can be motivated to do the same with lot of ingenuity. The experts shall check and evaluate the same."

15.A. Is eco-friendly conveyance being used for local in-house mobility by on campus residents (including day workers)?
a.   NO
b.   YES

 "The institute should restrict Green House Gas emission by limiting the use of conventional fuel vehicles such as motorcycles/ cars etc. by campus residents. Alternate 'green' solutions may be used for local mobility. The experts should be briefed on the aspects of local mobility using such methods. Any innovative mobility solution so fabricated & used should be displayed for evaluation by the experts."

15. B. If yes, please mention the various of conveyance (eg golf carts, battery skate boards, battery assisted pedal bicycle etc.)
_____

16. What is the total green area of the campus? (Sq.mtr.)

"The institute should refer to the architectural plan, blue print of the campus and arrive at the approximate area of the green space. The area can also be marked on google maps and shown to experts for evaluation."

17. Please provide the estimated percentage of total green area occupied by each of the following:
a.   LAWN (GRASS) _____ SQ MTRS
b.   TREE COVER (WOODED AREA) _____ SQ MTRS
c.   SHRUBS AND HEDGES_____ SQ MTRS
d.   POTTED PLANTS_____ SQ MTRS
e.   OTHERS - PLEASE SPECIFY_____ SQ MTRS

"The institute should categorize the green cover to the best approximation. The experts during visit shall verify the veracity of the claim."

"The institute should refer to the architectural plan of the campus and arrive at the approximate area of the open space. The area can also be marked on google maps and shown to experts for evaluation."

18. What is the total open area of the campus? (Sq. mtrs)

19. How many species of plants does the campus have?
a.   LESS THAN 10
b.   11 TO 20
c.   21 TO 30
d.   MORE THAN 30

"The institute should have adequate diversity of all plants along with seasonal blooms. The plants should be present in bulk, which means that at least 20 units of each plant species should be planted in campus. The nursery on the campus and/ or the kitchen garden for the Hostel mess shall be visited by the experts and accordingly evaluated."

20. How many plants have been sowed per capita in the last year in the campus?
a.   LESS THAN 5
b.   5 TO 10
c.   10 TO 20
d.   MORE THAN 20

Per Capita plant sowed in last one year   = $\dfrac{\text{Total number of plants sowed in last year (Apr 2018 to May 2019)}}{\text{Average population of the institute calculated per day as recorded from Apr 18 to May 19.}}$

" The institute should provide data regarding the procurement of plants from the vendor. The number of procurements should be divided with the average population present in the campus on any given day to arrive at the per capita plantation figure. The record of plantation drive is to be placed for perusal by experts. Local media coverage if any shall be an added input. The institute should have adequate diversity of all plants along with seasonal blooms. The plants should be present in bulk, which means that at least 20 units of each plant species should be planted in campus. The nursery on the campus and/ or the kitchen garden for the Hostel mess shall be visited by the experts and accordingly evaluated."

18

21. A. Is the campus green rated?
a.   NOT RATED
b.   RATED

21. B. What is the rating of your institute?
a.   ONE STAR
b.   TWO STAR
c.   THREE STAR
d.   FOUR STAR
e.   FIVE STAR
f.   OTHERS (PLEASE SPECIFIY)

"The green rated campus is the rating obtained after the evaluation of the green campus based on sustainable parameters specified by the evaluating organization like I.G.B.C. (Indian Green Building Council) GRIHA(Green Rating for Integrated Habitat Assessment) - TERI (rating system formulated by Tata Environmental Research Institute)
Please refer to GRIHA manual separately to understand Star Rating."

"The institute should provide all the documents about the rating, including the application, evaluation and certification. The source and calculations should be placed before experts for evaluation."

22.A. Does the campus calculate its overall carbon footprint?
a.　　　　NO
b.　　　　YES

"The institute should provide documents about the carbon footprint calculation. The calculation could be from government-approved agency/body or online calculator from a reputed source. The source and calculations should be placed before experts for evaluation."

A carbon footprint is the amount of greenhouse gases—primarily carbon dioxide—released into the atmosphere by a particular human activity as depicted in the pictures.

Online calculators can do some of the work for you, giving a rough estimate of your carbon footprint based on the size of your household, the efficiency of your appliances, how much you drive or fly, what you eat, and how much you recycle.

<u>OR</u> The calculation shall be seconded from government-approved agency/body

22.B. If yes, please mention the recent score with date:

SCORE _____

DATE _____ (DD/MM/YYYY)
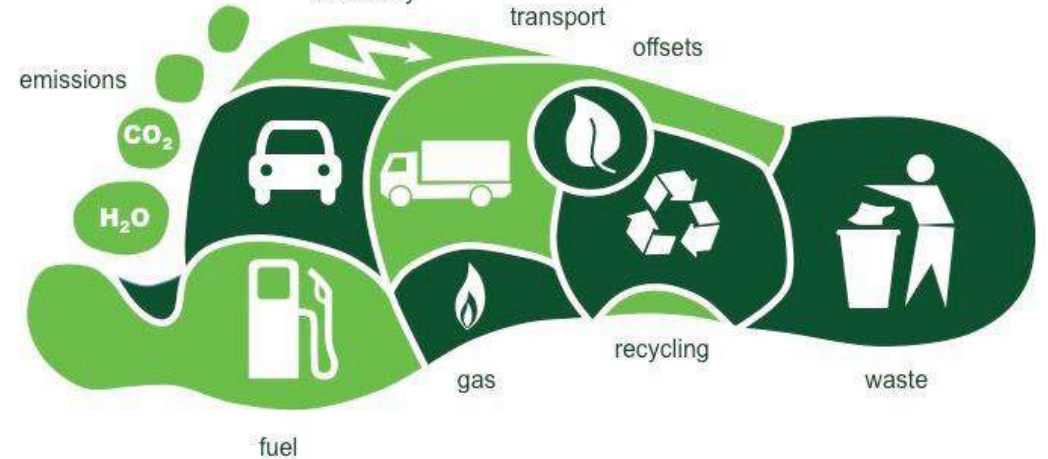
23.A. Is there active students' involvement in college-recognized green programs and projects?
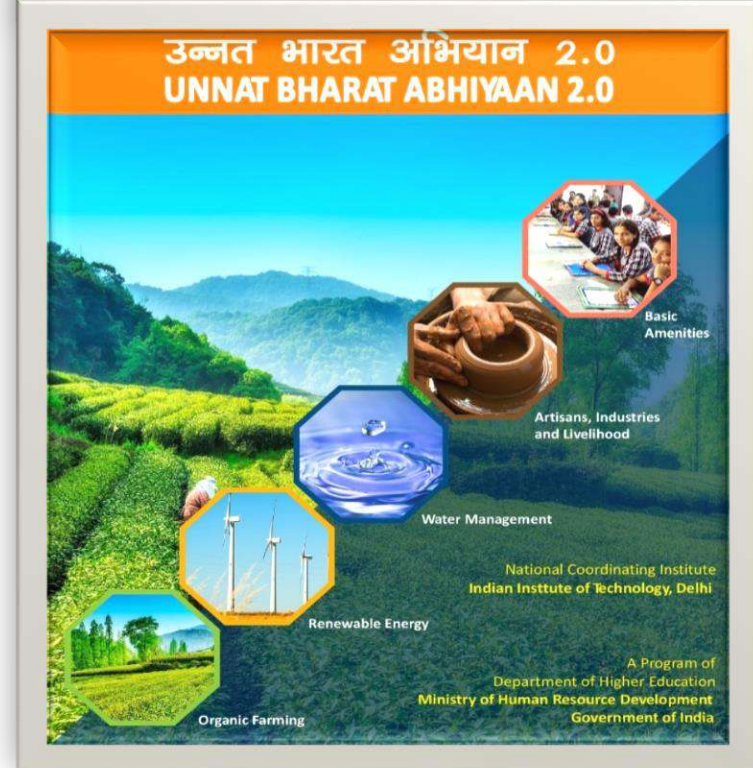a.   NO
b.   YES

"Activities such as tree plantations, conservation movements, conferences, workshops, SAGY, UBA etc. can be included in this category. The college should provide the proof of the programs in the form of images/news clippings reports etc. to the experts for evaluation during the visit."

23.B.If YES, Number of projects carried out in the last academic year: -
a.   0 TO 5
b.   6 TO 10
c.   11 TO 20
d.   MORE THAN 20

"For every claim made by the institute, proper images, report or/and participation details should be provided as proof for evaluation by the experts during visit."

Saansad Adarsh Gram Yojana
A holistic approach for rural development

MP

Villagers   Scientific Tools

21 Schemes
of various Ministries amended

✓ Prioritizing Gram Panchayat projects
✓ Training for 653 charge officers
✓ 696 Gram Panchayats

✓ Involving villagers
✓ Leveraging scientific tools
✓ Under the leadership of MPs

उन्नत भारत अभियान 2.0
UNNAT BHARAT ABHIYAAN 2.0

Basic Amenities

Artisans, Industries and Livelihood

Water Management

National Coordinating Institute
Indian Institute of Technology, Delhi

Renewable Energy

A Program of
Department of Higher Education
Ministry of Human Resource Development
Government of India

Organic Farming

24. Does the institute have valid documented and well-circulated green policies?
a.   NO
b.   YES

"The policies if any, should be in a well-documented form and existent for at least the academic year 2018-19."

A GREEN POLICY is the statement about the commitment to sustainability and environmental management. Having a formal green policy shows your employees and Students that managing environmental issues are high priority for your organization.

A green policy usually contains the following components:
• Organization's declaration towards commitment to the environment.
• Organization's goals towards environment and its achievement
• A commitment to prevent pollution and to continuously improve environmental performance.
• A commitment to keeping student, employees and community members safe.
• Evaluating the outcome and measuring the impact for achieving the green policy objective.

REDUCE REUSE RECYCLE

25. Does the institution oversee any implementation of green programs in the neighbouring communities?
a.   NO
b.   YES

"The programs should be consistent for at least six months of the academic year 2018-19. The proofs should be in the form of newspaper clippings, images of community visits and/or the report to local govt body/ UBA/ SAGY coordinator/ such other programme coordinators."

Saansad Adarsh Gram Yojana

Jharkhand   Uttrakhand   Odisha   Andhra Pradesh
Karnataka   Kerala   Tamil Nadu   Gujarat

पंचायत करम्हा

Saansad Adarsh Gram Panchayat Karmha

26.A .Has the institute participated in UBA/SAGY?
a.   NO
b.   YES

Saansad Adarsh Gram Yojana

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"The institute should provide the document/certificate of participation in UBA/SAGY. The images of field visits in SAGY to be used as additional proof for evaluation by experts during the visit."

26.B. If YES, how many programs were done in the past year?
a.   0 TO 5
b.   6 TO 10
c.   11 TO 20
d.   MORE THAN 20

"The institute should provide the images/ records/ media coverage of each program claimed for evaluation by the experts during the visit. The same programme should not be counted under UBA and SAGY simultaneously. The programmes should be mutually exclusive."

27.A Does the institute participate in technology or innovation-related programs/competitions (ex. Hackathon)?
a.   NO
b.   YES

"The institute should provide records/ certificates of participation in at least 03 hackathons overall and/or competition in the academic year 2018-19. Either on an individual or team basis. The experts shall evaluate accordingly during the visit."

27.B. If YES, please mention the No of programs/competitions participated from May 2018 to May 2019.

_____ <NUMERIC VALUE>

"The institute should provide the relevant records/ documentation/ /certificates etc. of each program as claimed for evaluation by experts during the visit. All the programs should be unique, and no event should be claimed more than once/ re-counted under different pretext. The event should be mutually exclusive. "

28. Does the campus participate in climate change related events (workshops, conferences, and training)?
a. NO
b. YES

"The institute should provide the relevant records/ documentation/ /certificates etc. of each program as claimed for evaluation by experts during the visit."

29. How many climate change-related events did the institute organize on/off campus in the past academic year?

_____ <NUMERIC VALUE>

"Complete details of the events to be provided in form of report or photographs for evaluation by experts during the visit."

30.A. Has the campus partnered with any external organizations to implement a technologically-driven environment and sustainable solutions?
a. NO
b. YES

"The institute should provide documentation (including, MOUs wherever applicable) for each collaboration and the activity details as claimed for evaluation by experts during the visit."

30.B. If yes, how many collaborations were done in last one year?

_____ <NUMERIC VALUE>

"The institute should provide details of MoUs or documents of association for every individual claim for evaluation by experts during the visit."

31. Are there signage's on the campus that help in promoting hygiene, sanitation and eco-friendly habit lifestyle?
a.   NO
b.   YES

"Signage's form part of good practices for the management to channelize the campus residents to use public conveniences, dustbins, disposal facilities, follow SWATCHTA norms etc. Institute is expected to have signage's that promote the hygiene, sanitation and eco-friendly life style. The institute should indicate such signage's during the expert visit to the campus."

32. Does the Institute have smart displays and interactive models?
a.   NO
b.   YES

"The connotation of 'smart' display is not limited to use of wide screen for display purposes. To the contrary, a screen put up for display purposes is not smart as it just replaces a pin up board. Hence smart use of display can be ascertained if they are used innovatively such as when used for exchange of the information between students/ faculty/ staff/ visitors, for routine queries such as timetables, library books, seminar topics, laboratory schedule etc. The experts should be shown such facility during the visit to the campus"

33.A. Is there any paperless policy implemented on the campus?
a.   NO
b.   YES

"The paperless policies should be well-documented and should be in existence since academic year 2018-19 and comparable with 2017-18, to estimate the total stationery consumed (both for academic & non-academic purposes). The reduction in consumption of stationery should indicate a commensurate enhancement in usage of other medium such as e-office solution, online examination system, smart displays, increased use of IT resources etc.

33.B. What is the extent of the paperless office implemented in the institute?
a.   LESS THAN 25%
b.   25 – 50%
c.   50 -75%
d.   MORE THAN 75%

"Institute should quote the extent of the paperless office as achieved. "

34.A. Has the campus networked its sensors to create smart campus?
(a) NO
(b) YES

"See Ques No 14 above regarding smart electric meters. Certain other smart meters/ sensor include: -
(a) Smart Water meters
(b) Air Quality Sensor
(c) Temperature Sensor
(d) Motion Detector cum lighting sensor
(e) Smart Gas Meter
The independent solutions from the vendors can be networked to provide a single interface for management view. Notwithstanding, SCADA systems are now commercially available and can be tweaked for implementation at Institute level. The experts should be briefed on the solution that has been adopted to network the sensors/ meters to make the campus truly smart."
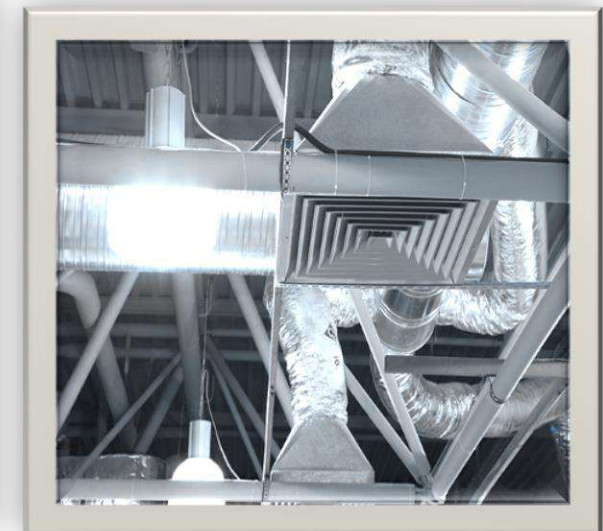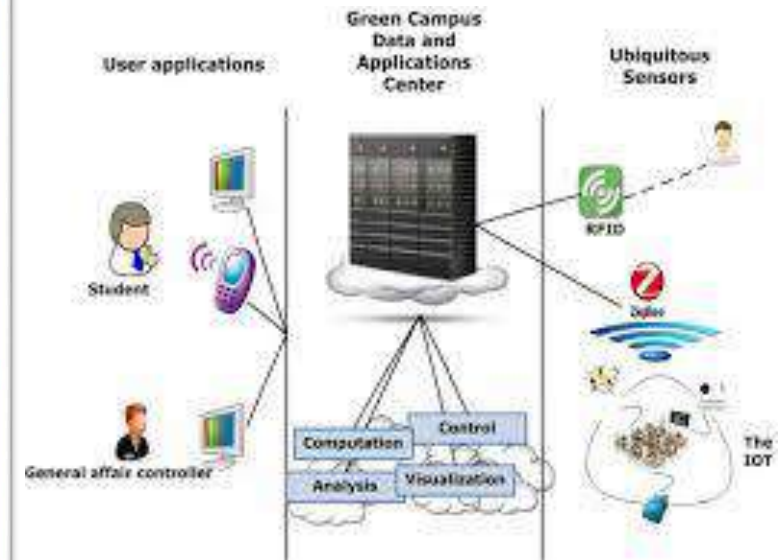

SMART WATER METER

TEMPERATURE SENSOR

SMART GAS METER

AIR QUALITY SENSOR

34.B. If yes, what are the type of applications being utilized for monitoring and control of such utilities? (You may select one or more from the following answers)

a. WEB APPLICATION (DASHBOARD)
b. MOBILE APPLICATION
c. MAIL ALERT
d. SMS BASED ALERT
e. OTHERS
    _____

"The institute is expected to demonstrate the various applications for the experts to ascertain the functioning of such applications. Institutes are also expected to share a user name and password for such applications to enable remote login by subsequent jury. (The user name and password is not to be changed till awards are culminated). Minimum historic data for at least the last three months (w.e.f 01 Mar 2019) should be available for the comparison on the dash board."

35. Is the campus entry based on ease of access via Smart Card/ Biometrics system?
a.　　　　NO
b.　　　　YES

"If the answer is YES, then the institute should ensure that attendance is being registered through the smart card/ biometric system for the students, teachers, non-teachers and workers on the campus. Relevant records/ documents should be presented to expert for verification/ evaluation."

36. Does the campus have tools for automation of functionalities like Timetable, Library Management, Book Issue/ Return, Dues Collection, student dash board, parent dash board etc.?
a.　　　　NO
b.　　　　YES

"Minimum of any three such systems should be functional for award of mark."

37. Has the campus implemented smart solutions like ERP for administration, academic, and finance?
a.　　　　NO
b.　　　　YES

"It is expected that such system is functional for at least the last three months. The system should be demonstrated to the experts for evaluation."

38. Has the campus implemented an online platform like MOODLE for teaching and learning process?
a.　　　　NO
b.　　　　YES

"It is expected that such system is functional for at least the last three months. The system should be demonstrated to the experts for evaluation. The institute should keep ready the installation report and active functioning of MOODLE in Assignments, Chat, Forum, Feedback, Glossary, Quiz, Survey, Wiki, Audio, Video, Files (PDF's, Word, Excel, etc.), SCORM and more."

39.A. Does the institute restrict fuel based vehicle on campus and allow only selective barrier-free entry/exit?
a.   NO
b.   YES

"It should be an endeavor of institute to restrict fuel based vehicle on campus to minimize emission of gasses/ pollutants. However, the same cannot be applied in Toto for all vehicles and certain selective criteria needs to be applied for barrier free entry/ exit. The following target group may require access to campus based on their infirmities/ exemptions: -
1. Wheelchair users
2. People with limited walking abilities
3. The sightless and the partially sighted
4. Those persons who are temporarily disabled due to accidents or illness.
5. Higher ranking officials/ as exempted by the institute management.

The institute should ensure that the security personnel present on the entry points are made sensitive to the requirements and the selective criteria is enforced. The experts should be briefed/ demonstrated about such facilities for the evaluation."

39.B. If the answer to above question is YES, does the campus have smart-assist parking system at a central parking location (WiFi, Sensor-enabled parking)?

a.   NO
b.   YES

"A smart assist parking system can include the following: -

1. Parking facility-monitoring subsystem whether monitoring the IN and OUT of vehicles at parking facilities and keeping records of each vehicle by storing the snap of vehicle number plate.

2. Parking information signs: provide parking lot occupancy and directional information to drivers.

3. How efficiently Number of vehicles accommodated in the available parking space.

4. Discipline followed in the parking space without manual interference.

5. Display showing the vacant slot based on sensor inputs.

The experts should be shown a demonstration and briefed about the same for undertaking the evaluation."
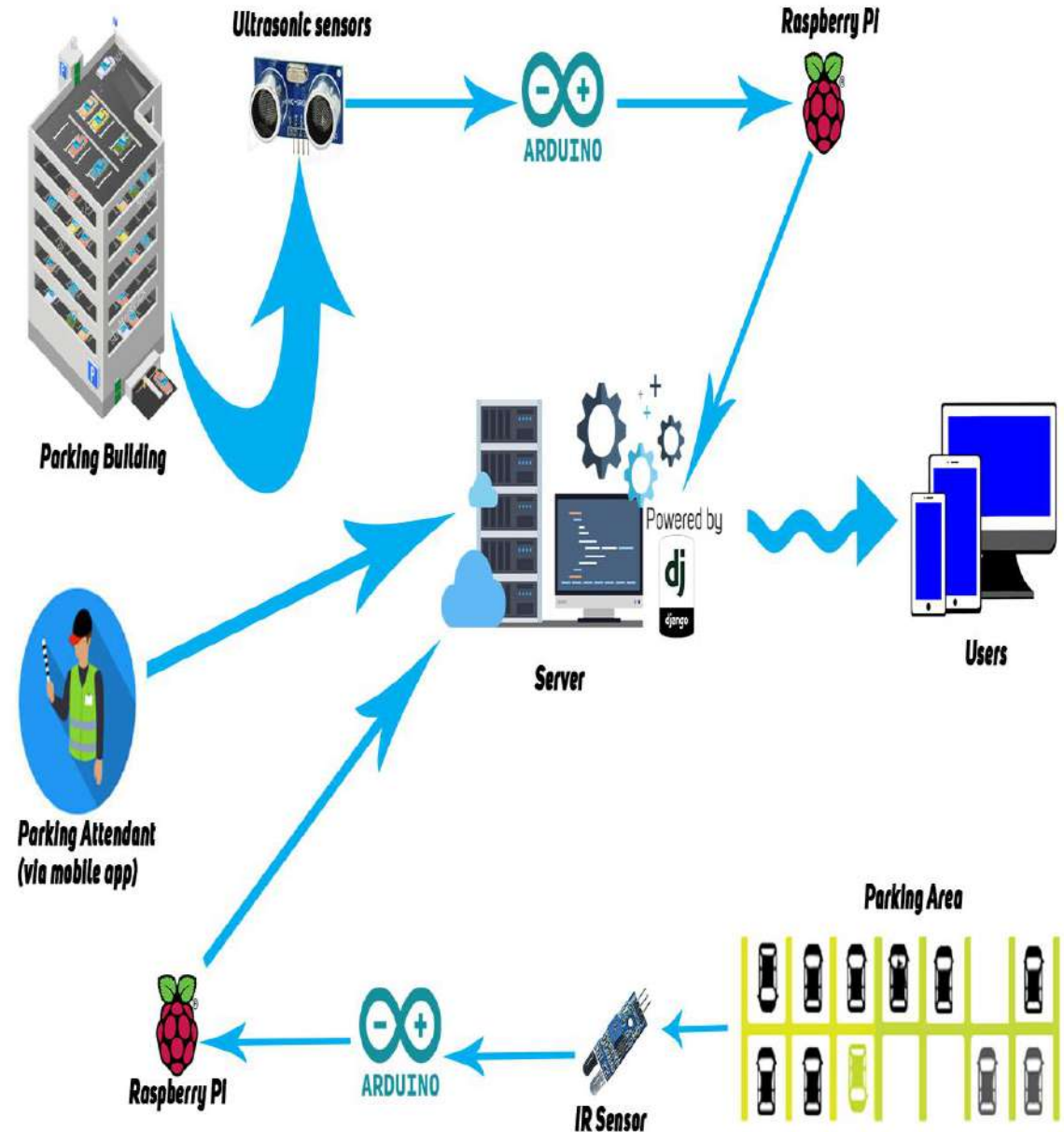
40. Does the campus have Security and Surveillance system?
a.   NO
b.   YES

"The institute is expected to have robust security and surveillance mechanism to ensure safety of residents in the campus premises. The following should be briefed/ demonstrated to the experts: -
(a)   Working surveillance mechanism
(b)   Privacy aspect of the surveillance
(c)   Standard operating procedures in case of an incident
(d)   Reporting matrix
(e)   Response mechanisms in case of fire & natural calamities.
(f)   Recorded logs for last one year.
(g)   Methods of archiving of video data
(h)   Accessibility to control room
(i)   Briefing to the security guards
The experts shall evaluate and award the mark based on the above inputs."

41.A. Does the institute support and encourage ease of accessibility for Divayangjan?
a.   NO
b.   YES

"The accessibility relates to the independent move of Divyangjan within the campus premises. The experts should be briefed about the same".

41.B. If yes, mention the types of the assistance being facilitated for independent accessibility. (You may select one or more from the following answers)

a.   RAMP
b.   METAL STRIPS
c.   BATTERY-ASSISTED WHEELCHAIRS
d.   SEPARATE WASHROOMS
e.   TACTILE PAVING FOR THE BLIND
f.   OTHERS

42. What is the number of people reporting sick in last one year in the health Centre (if any) of the institute?
a.   0 – 50
b.   51 -100
c.   MORE THAN 100

"Indicates general health status of the institute. A low figure of the sickness indicates a general well-being of the campus residents. Relevant records of the health Centre or the such other records of persons falling sick in the academic year 2018-19 is to be produced for perusal by the experts."

43. Has the institute set up the SDGs (Sustainable Development Goals) related teaching courses in the curriculum or additional activities?
a.   NO
b.   YES

"In case the answer is "YES", the institute should provide course curriculum for the SDGs related teaching course. The courses should be running on the campus for the A.Y. 2018-19."

44. What is the yearly per capita electricity consumption of the institute?

_____ UNITS (AVERAGE OF PER PERSON PER DAY)

"The per person per day average must be calculated based on the minimum data of last three months (i.e. w.e.f Mar 2019 to May 2019). An average calculated for 12 months will indicate a true average. The recorded data is to be presented before the experts for verification."

ELECTRICITY CONSUMPTION

Month	Units used	Biometric Attendance
April 2018	100	150
May 2018	200	250
-	-	-
-	-	-
Feb 2019	300	350
March 2019	400	450
Total	**4000**	**3500**

Average Electricity
=Total units used/12 months
=4000/12
X=334 units(approx)

Average Population Per month
= Total population/12 months
= 3500/12
Y=292(approx)

Per Capita Electricity consumption
=Average Electricity (X)/Average Population (Y)
=334/292
=1.14 units

45. What is the financial saving/benchmark impact which has been achieved by turning your institute into smart campus?

-------------------------- NOT MORE THAN 150 WORDS DESCRIPTIVE ANSWER---------------------

46. What change has been achieved by implementing Smart Technologies in your campus which was not achievable prior to such implementation

-------------------------- NOT MORE THAN 150 WORDS DESCRIPTIVE ANSWER---------------------

47. How the Smartness is being leveraged physically by on campus society (Students, Faculty, Administrators etc.)

-------------------------- NOT MORE THAN 150 WORDS DESCRIPTIVE ANSWER---------------------

48. Describe in not more than 250 words the road map for next two years in the given context.

-------------------------- NOT MORE THAN 250 WORDS DESCRIPTIVE ANSWER---------------------

49. Attach a write up no more than two pages (pdf of max size 1 MB) for any other points not covered in Q 45 to 48

50. Attach Smart Campus Photographs (Any five) – HIGH QUALITY

ESSENTIAL LINKS

Portal : https://www.aicte-india.org/Initiatives/clean-green-campus

Questionnaire login: http://www.clean-campus.aicte-india.org/login.php

Concept Note: https://www.aicte-india.org/sites/default/files/Clean_Campus_2019.pdf

Process Manual: https://www.aicte-india.org/sites/default/files/ManuaL%20CAS%202019.pdf

Amplification Notes: https://www.aicte-india.org/sites/default/files/Amplification%20Notes%20for%20CAS%202019.pdf

THANK YOU