AGASTYA INTERNATIONAL FOUNDATION
SUPPORTED BY R. JHUNJHUNWALA FOUNDATION & OTHERS

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Anveshana
BUILDING BRIDGES TO DISCOVER

"100 Times Curious" – Collection of Questions

Released on the occasion of

Science & Engineering Fair of Selected Projects

at

National Bal Bhawan, Kotla Road, Delhi on 10th, 11th & 12th Feb 2020

***Organised by* Agastya International Foundation**

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FOREWORD

It is well established in neuroscience that the young brain is constantly completing a picture of the world, its objects, processes and relationships. How does it do so? By asking questions and going after what seem to be hidden mysteries. If curiosity is a trigger questions are its outcomes.

But not every child gets an opportunity to give a definite form to its questions or share its curiosities. In fact the poorer a child's economic circumstances are, the higher is the incidence of what we might call stimulus poverty- the lack of stimuli in his or her environment. Material poverty is but one reason for stimulus poverty. Children can grow stimulus-poor from any material circumstance.

Anveshana is one more platform Agastya International Foundation has created to address this problem. This event, now 8 years old in Bangalore, completed 6 years in Hyderabad and 4 years in NCR has a built-in opportunity for children to get curious and ask question because it takes them far away from their regular environs thus providing a state of excitation from which questions will result.

Till now we had not created a process to verify if this questioning is happening while children and their guides engage in their projects. Anveshana 2015 set out to correct this.

What you see in this volume are the questions children asked while doing their projects. It is almost certain not all of them could have been answered. Equally, each is a first step in a voyage of discovery that the child has begun.

AGASTYA INTERNATIONAL FOUNDATION

PROJECTS EXHIBITED IN THE FAIR

S.N.	PROJECT CODE	PROJECT NAME	COLLEGE NAME/SCHOOL NAME
1	AS-D-G-01	Auto Switching of Gas Stove	ABES Engineering College, Ghaziabad
			Govt Sarvodaya Kanya Vidyalaya, No-2, Shakarpur, Delhi
2	AS-D-G-02	Purifying Water using Sunlight	Ajay Kumar Garg Engineering College Ghaziabad
			Composite School, Lathmar Colony, Ghaziabad
3	AS-D-G-03	Wildfire Prediction and Detection	Ajay Kumar Garg Engineering College Ghaziabad
			Composite School, Lathmar Colony, Ghaziabad
4	AS-D-G-04	Save Polar-Use Solar	Bharati Vidyapeeth's College of Engineering, Delhi
			Govt Co-ed Senior Secondary School, Paschim Vihar, Delhi
5	AS-D-G-05	M.E.G. Train	Bharati Vidyapeeth's College of Engineering, Delhi
			Govt Co-ed Senior Secondary School, Paschim Vihar, Delhi
6	AS-D-G-06	Heart Disease Diagnosis by Machine Learning	Bharati Vidyapeeth's College of Engineering, Delhi
			Govt Co-ed Senior Secondary School, Paschim Vihar, Delhi
7	AS-D-G-07	Magic Fruit Cleaner	GD Goenka University, Gurugram
			Govt Middle School, Dumdama, Sohna-Gurugram
8	AS-D-G-08	Diagnosis of Cancer in Early Stage	Global Institute of Technology, Jaipur
			Govt Secondary School, Sector-19, Pratap Nagar, Jaipur
9	AS-D-G-09	AEGIS	GL Bajaj Institute of Technology and Management, Greater Noida
			Rajkiya Balika Inter College, Sector-51, Noida
10	AS-D-G-10	Green Leaf Disease Prediction by Resbery PI	GL Bajaj Institute of Technology and Management, Greater Noida
			Govt Sarvodaya Kanya Vidyalaya, No-2, Shakarpur, Delhi
11	AS-D-G-11	Water Droppler	GL Bajaj Institute of Technology and Management, Greater Noida
			Rajkiya Balika Inter College, Sector-51, Noida

12	AS-D-G-12	Water Recycler	GL Bajaj Institute of Technology and Management, Greater Noida
			Rajkiya Balika Inter College, Sector-51, Noida
13	AS-D-G-13	Water Tank Cleaning System	Hitech Institute of Engineering and Technology, Ghaziabad
			Govt Sarvodaya Bal Vidyalaya, Laxmi Nagar, Delhi
14	AS-D-G-14	Electronic Water Efficient Flushing System	Hitech Institute of Engineering and Technology, Ghaziabad
			Govt Sarvodaya Bal Vidyalaya, Laxmi Nagar, Delhi
15	AS-D-G-15	Bio Plastic	IMS Engineering College, Ghaziabad
			Composite School, Kaila Balak,Ghaziabad
16	AS-D-G-16	Pragyan Rover	IMS Engineering College, Ghaziabad
			Composite School, Kaila Balak,Ghaziabad
17	AS-D-G-17	Autonomous Farming Bot	Indraprastha Engineering College, Shahibabad
			Govt Sarvodaya Kanya Vidyalaya, Arambagh Lane, Delhi
18	AS-D-G-18	Mouse Events Control Using Hand Gesture	JSS Academy of Technical Education, Sector-62, Noida
			Rajkiya Balika Inter College, Sector-51, Noida
19	AS-D-G-19	Commercial Bin	JSS Academy of Technical Education, Sector-62, Noida
			Govt Sarvodaya Kanya Vidyalaya, No-2, Shakarpur, Delhi
20	AS-D-G-20	Advanced Garbaging Machine	Krishna Engineering College, Mohan Nagar, Ghaziabad
			Govt Sarvodaya Bal Vidyalaya, No-2, Shakarpur, Delhi
21	AS-D-G-21	Landslide Detection System	Maharaja Agrasen Institute of Technology, Delhi
			Govt Sarvodaya Kanya Vidyalaya, Jwalapuri, Amalvas, Delhi
22	AS-D-G-23	Multi Functionality of Plants	Maharaja Agrasen Institute of Technology, Delhi
			Govt Sarvodaya Co-ed Vidyalaya, Sector-8, Rohini
23	AS-D-G-24	Sign Language Translator	Maharaja Agrasen Institute of Technology, Delhi
			Govt Sarvodaya Co-ed Vidyalaya, Sector-8, Rohini
24	AS-D-G-25	Eco-Friendly Refrigerator	Mangalmay Institute of Engineering and Technology, Greater Noida
			Govt Sarvodaya Kanya Vidyalaya, Arambagh Lane, Delhi

25	AS-D-G-26	Edible Spoons	Mangalmay Institute of Management and Technology, Greater Noida
			Govt Sarvodaya Kanya Vidyalaya, No-2, Shakarpur, Delhi
26	AS-D-G-27	Water Waste Management	Noida Institute of Engineering and Technology, Greater Noida
			Chetram Sharma Girls Inter College, Sector-45, Noida
27	AS-D-G-28	Multi Toolhead Machine	Noida Institute of Engineering and Technology, Greater Noida
			Chetram Sharma Girls Inter College, Sector-45, Noida
28	AS-D-G-29	Pain Reliever Machine	Poornima College of Engineering, Jaipur
			Govt Secondary School, Sector-19, Pratap Nagar, Jaipur
29	AS-D-G-30	SAPASS	Sagar Institute of Research and Technology, Bhopal
			Sagar International Scool, Bhopal
			Billabong High School, Bhopal
30	AS-D-G-31	Washing Water Purifier System	Sagar Intitute of Technology an Research, Bhopal
			Sagar Vidya Niketan, Sikandarabad, Bhopal
31	AS-D-G-32	Green AC Powered System	Sagar Intitute of Technology an Research, Bhopal
			Sagar Vidya Niketan, Sikandarabad, Bhopal

1. AUTO SWITCHING OF GAS STOVE

1. What is electron?
2. What is Proton?
3. What is neutron?
4. What is current?
5. What is voltage?
6. What is Resistance?
7. What is series connection?
8. What is parallel connection?
9. How to calculate total series resistance?
10. How to calculate total parallel resistance?
11. What is charge?
12. What are the types of electricity?
13. What is Static Electricity?
14. What is CURRENT Electricity?
15. What are the types of Current Electricity?
16. What are the different methods of producing electricity?
17. What are the sources of electricity?
18. What are the effects of electricity?
19. What are the applications of electricity?
20. Where is D.C. used?
21. Where is A.C. used?
22. What is DC?
23. What the sources of the DC sources?
24. What is Battery?
25. What is Cell?
26. What is AC?
27. What is frequency?
28. Which frequency used in India?
29. What is ohms law?
30. What is Inductor?
31. What is capacitor?
32. What is conductance?
33. What is conductor?
34. What is insulator?
35. Which voltage of battery is used in the project?
36. How equipment's are connected in our households?
37. What is Inductance?
38. What is Impedance?
39. What is Admittance?
40. What is Susceptance?
41. What is Insulation?
42. What is Insulation Resistance?
43. What is Leakage Current?
44. What is Grounding?
45. What materials are generally used as conductors?
46. What materials are generally used as insulators?
47. What is the effect of heat on insulator?
48. What are the properties of a good conductor?
49. What are the properties of a good insulator?
50. What is a semiconductor?
51. What are the different types of semiconductors?
52. What are the types of Extrinsic Semi-Conductor?

53. Give some examples of semiconductors?
54. Where are semiconductors used?
55. How are resistances classified?
56. What is the unit of resistance?
57. What are the types of cell?
58. What is resistor?
59. On what factors does the resistance of a conductor depend?
60. What are the limitations of Ohm's law?
61. What is an electric circuit? What are its types?
62. What do you mean by closed circuit?
63. What do you mean by open circuit?
64. What do you mean by short circuit?
65. What are the combinations of resistances?
66. What do you mean by electrical network?
67. Define Electrical Work?
68. Define Electrical Power?
69. Define Electrical Energy?
70. What is the unit of Electrical Power?
71. What is the unit of Electrical Energy?
72. What is MultiMater?
73. What is software?
74. What is Hardware?
75. What is timer?
76. Which metal is used for soldering purpose?
77. What type of display used in this project?
78. What is the purpose of this project?
79. How it helps the society?
80. What type of insulating material is used in wires?
81. What is Neutral?
82. What Is Micro--Controller?
83. What is the most appropriate criterion for choosing the right micro-controller of our choice?
84. What components should Micro-Controller at-least consist of?
85. Application of Micro-Controller?
86. What Is Arduino?
87. Who invented Arduino?
88. How does an Arduino work?
89. What are the types of Arduino?
90. Which software Arduino use for programming?
91. What is C Programming?
92. What is Breadboard?
93. What is PCB?
94. What is Relay?
95. What is Soldering?
96. What is protecting device?
97. What is the need of protecting device?
98. What type of material is used in wires?
99. What is Servomotor?
100. What is the application of Servomotor?

2. WATER PURIFICATION USING SUNLIGHT

1. What is the basic principle of this idea?
2. What is Photocatalysis?
3. How this entire process works?
4. What are the various components?
5. What is TiO2 or Titanium dioxide?
6. Why sand is used?
7. What are pathogens?
8. What is the role of silver in the process?
9. Why cement is used?
10. How much time it'll take to purify water?
11. What is SODIS process?
12. What types of impurities are there in water?
13. What is the role of sunlight?
14. How bacteria in water are destroyed?
15. What are Reactive Oxygen Species?
16. How are ROS formed?
17. What are super oxides?
18. What are bands?
19. What is organic degradation?
20. What is the effect of sunlight on photocatalysts?
21. What is the meaning of doping?
22. How doping is done?
23. What is the meaning of composite?
24. What is Deionized water?
25. What is DNA?
26. What is RNA?
27. What is cell membrane?
28. What are Enzymes?
29. What is a catalyst?
30. How ROS enhancement is done?
31. What is Methylene Blue?
32. Why methylene blue is used?
33. Which types of bacteria are present in water?
34. Which cement is used?
35. Can composite be moulded in different shapes?
36. What is ZnO or Zinc Oxide?
37. How many types of sand is there?
38. What is Oxygen?
39. What are the advantagesof this project?
40. What are naturally obtained minerals?
41. What is Conduction band?
42. What is Valence band?
43. What is Band gap?
44. What are electrons?
45. What are protons?
46. What is electric charge?
47. What is neutrality?
48. What are neutrons?
49. What is an atom?
50. What are molecules?
51. What are bacteria?
52. What is virus?
53. What are metals?
54. What are non-metals?
55. What is an element?
56. What are acids?

57. What are bases?
58. What is pH level?
59. What is the spectrum of sunlight?
60. What is photosynthesis?
61. How ultraviolet is different than visible light?
62. How water reacts with Zinc and Titanium?
63. What is hardening of cement?
64. Which type of cement is used in the process?
65. How many types of cement are there?
66. What are pellets?
67. What are composite discs?
68. What are Hydroxyl ions?
69. What is the life of this composite?
70. What is the overall cost of manufacturing this composite?
71. What are its shortcomings?
72. Can this composite be shaped in any shape for any container or vessel?
73. What is its overall efficiency of bacteria degradation?
74. How much time it'll take to purify the water?
75. Will it also work without sunlight?
76. What is water reservoir?
77. What is potable water?
78. What is the total percentage of water available on earth in various forms?
79. What is saline water?
80. What is percentage of fresh water on Earth?
81. How Humans are responsible for water problems?
82. Why is fresh water scarce on the Earth?
83. How water scarcity affects the life of people?
84. Name the water borne diseases.
85. How water reservoirs get contaminated?
86. What is rain water harvesting?
87. What are the various water testing methods?
88. How many waste water treatment processes are there?
89. What is photo-oxidation?
90. What is bacteria degradation?
91. What are biodegradable materials?
92. What are non-biodegradable materials?
93. What is the role of catalysts in the degradation process?
94. What do you understand by composites?
95. How can we kill the bacteria?
96. What is aerobic process?
97. What is anaerobic process?
98. What are the different ways by which water gets polluted?
99. What is contaminated water?
100. What are the advantages of this method?

3. WILDLIFE PREDICTION AND DETECTION

1. How is the Wildfire prediction and detection device is effective than other techniques which is used to extinguish the fires?
2. Why you choose this theme?
3. How you implementing the concept of ML?
4. What is python programming?
5. How did you get the idea of building this device?
6. Does it need a high temperature?
7. How big area is covered by a single device?
8. Who will manage the control room?
9. What are the factors which affect the wildfire?
10. What is the age of a device?
11. How the model is innovative?
12. What is MQ2 sensor?
13. What are IR sensors?
14. What is soil moisture sensor?
15. How humidity affect the fire?
16. Are you using solar panels in the project?
17. How many types are there in which wildfire can occur?
18. What are the natural causes of wildfire?
19. What are the manmade causes of wild fire?
20. Is the sensors water proof?
21. How you prevent your device form rain water?
22. Detect all the sensors in the device.
23. What if your own device catches fire?
24. How it is helping to increase cleanliness?
25. What is the range for the flame sensor?
26. How many devices are used to cover half the area of a typical forest?
27. What if the fire occurs in moderate rain?
28. Can wind speed affect the fire?
29. Is your device renewable or nonrenewable?
30. What is the accuracy for the prediction?
31. What if the prediction goes wrong?
32. How you are giving power to the device?
33. If battery used, then what is the capacity of the battery?
34. Is there any chance of rusting of your device?
35. Who will take care of the renovation of the device?
36. Who will finance the project?
37. Is there any alternative to the tower?
38. What is the work of control room?
39. What is the maximum range of your sensor to detect the temperature?
40. Is the whole setup automated?
41. What if the prediction goes wrong and fire didn't occur?
42. What is the use of smoke sensor here?
43. Why is the tower here?
44. Which components in the project have used?
45. Name the two big forest of India?
46. The greatest factor which caused the wildfire naturally?
47. What is the cost of implementing the tower?
48. Why are you not providing wires to your devices?
49. What is the cost of the project?

50. How many sensors are used in the device?
51. How the waste management is achieved?
52. How will slurry go to the biogas plant?
53. What is the need of this project?
54. How the themes are achieved?
55. What are sensors?
56. Where IR sensors have been used?
57. What are IR sensors?
58. How the sensors detect the fire?
59. Why camera is used?
60. What is name of temperature sensor?
61. Name all the sensors used in the device?
62. What is the permanent solution for this cause?
63. How the model is cost affected?
64. What work will control room do?
65. What do you mean by self-sustained model?
66. How the Fire prediction and detection device is different?
67. What kinds of sensors have been used in the project?
68. How all devices are connected in the forest?
69. When the alert is required?
70. Where all the data is sent and how?
71. Which classifier is used in ML?
72. How cameras detect the fire?
73. How the model is solar activated?
74. What do you mean by cost affective model?
75. How will you provide wireless to the forest?
76. What is ratio of causing human fire v/s natural fire?
77. How the model works?
78. Which model is used in this ML?
79. What are the programming languages used?
80. How the device is smart?
81. For what purpose PCB have been used?
82. How can we search the location of the place where the fire has been detected?
83. How the control room will work?
84. What are the advantages of the project?
85. How the model works?
86. What is ' IC's ' in hardware used?
87. How the person will know that the fire strikes in that area?
88. How the theme of IOT is achieved?
89. What kinds of components have been used in the project?
90. What is the function of Node MCU Microcontroller?
91. What are the fire protection techniques of the project?
92. What are the places in India which are at risk of wildfire?!
93. What is the total area burned in the Amazon forest fire (approx.)?
94. Why planting trees is needed?
95. Why pollution control is needed?
96. How the model is made automated?
97. Why did protection fail every time?
98. In which areas can the Wildlife prevention and detection device be implemented?
99. Which Wi-Fi module is used in your project?
100. What is a Wi-Fi Module?

4. SAVE POLAR- USE SOLAR

1. What is a solar panel?
2. What are solar cells?
3. What do you mean by solar energy?
4. Why is solar energy known as green source of energy?
5. What are alternate sources of energy?
6. What are conventional sources of energy?
7. What is renewable energy?
8. What are the different types of renewable energy?
9. What is non-renewable energy?
10. What are the different types of non-renewable energy?
11. Explain the title 'Save Polar-Use Solar'.
12. What is the aim of the project?
13. How is the model innovative?
14. How is the new model better than the existing one?
15. What are the applications of solar panel?
16. What is the structure of solar panel?
17. What is QDSC?
18. What is nano technology?
19. What is quantum technology?
20. What is the use of quantum dot cells in your model?
21. What is the use of software in solar panel?
22. What area does solar hardware cover?
23. What is a nano composite polymer?
24. What is EVA?
25. What is the full form of EVA?
26. Why nanocomposite polymer is preferred over EVA?
27. What is UV Protector?
28. Why UV Protector layer is replaced with SiO2, TiO2 nano composite?
29. What is a frame?
30. What is the function of frame?
31. What is encapsulant?
32. What is the function of encapsulant?
33. What is backsheet?
34. What is the function of backsheet?
35. What is junction box?
36. What is the function of junction box?
37. Who will finance the project?
38. How is the model cost effective?
39. How is the model more efficient?
40. How does the model work?
41. How much will it's maintenance cost?
42. How will you publicize the model?
43. What is the future use of this project?
44. What are the benefits of solar panels?
45. Are solar panels difficult to maintain?
46. When the panels should be replaced?
47. How long is the life of the panels?
48. Is it suitable for all types of climate?
49. Can solar panels work at night?
50. Will the panels work on cloudy/rainy/snowy days?
51. What happens during a power outrage?

52. How do you store electricity for use after the sun goes down?
53. Does solar panel make hot water?
54. Why is shade a problem?
55. How many panels are needed to produce enough electricity to run a house?
56. What is net metering?
57. Are government incentives available to reduce the price?
58. Can the panels withstand high winds and hail?
59. Can solar panels work in a blackout?
60. How do solar panels help in generating electricity in street lights?
61. Is solar energy powerful enough for my home or business?
62. How will the electricity bill be affected on using solar panels?
63. How does solar energy benefit the environment?
64. How can we get electricity from the sun?
65. What is anti-fogging effect?
66. What is self-cleaning tendency of the panel?
67. What is adhesive bonding?
68. What is optical transmission?
69. What is flexibility?
70. What is durability?
71. What is transparency?
72. What is a conductor?
73. What is a semiconductor?
74. What are different types of semiconductor?
75. What do you mean by band gap?
76. What is the difference between conductors, insulators and semiconductors on the basis of their band gaps?
77. What is a photodiode?
78. What are the principles of a photodiode?
79. Which semiconductor is used in photodiode?
80. What is a diode?
81. What are the different types of diodes?
82. How can you tell how the system is performing?
83. Can you have a solar electric system on your house and still be connected to city power?
84. Why does system fail?
85. What happens when the solar energy generated is more than what we need or if it is less than what we need?
86. Will the mounting of solar panels damage the roof?
87. Will the installation of panels load the roof?
88. Are there any safety standards for solar power plant?
89. Can the panels withstand seismic conditions?
90. What is the difference between solar photovoltaic and solar hot water systems?
91. Will the wind blow the panels off the roof?
92. How long does it take to install the solar?
93. Do you need battery backup for solar panels?
94. How many panels are required for an electric solar panel system?
95. What do you mean by on-grid?
96. What do you mean by off-grid?

97. Do you have to go off the grid when you switch to solar energy?
98. Will switching to solar energy help you budget better?
99. Do you have to rewire the house while installing the panels?
100. Will solar panels raise your home or business' property value?

5. M.E.G. TRAIN

1. What is electromagnetic induction?
2. What is Faraday`s law?
3. What is magnetic field?
4. What is arduino?
5. What is microcontroller?
6. What is stepper motor?
7. What is capacitor?
8. What is battery?
9. What is the difference between capacitor and battery?
10. Why is stepper motor used?
11. What is the full form of M.E.G?
12. How is M.E.G train better non-conventional source?
13. What is the objective of the project?
14. How the project is eco-friendly?
15. What are the future aspects of this project?
16. What is renewable energy?
17. Is this project a source of renewable energy?
18. In which regions the project will be implemented?
19. What is the cost of the project?
20. How the project is cost efficient?
21. What is hardware?
22. What is software?
23. What is voltage?
24. How is voltage measured?
25. What is measuring unit of voltage?
26. What is current?

27. How is current measured?
28. What is measuring unit of current?
29. What is resistance?
30. How is resistance measured?
31. What is measuring unit of resistance?
32. How the model works?
33. What are the advantages of the project?
34. What is the function of arduino UNO microcontroller?
35. What is the working principle of M.E.G Train?
36. Why flaps are used?
37. Why magnets are covered?
38. What are magnetic properties?
39. What material is used to make flaps?
40. Why aluminium and rubber are used to make flaps?
41. Where are the magnets installed?
42. How the flaps are controlled?
43. Where is coiling done?
44. Which type of wire is used for coiling?
45. What is enamelled copper wire?
46. Why is enamelled copper wire used?
47. Why copper wire is used for coiling?
48. What are conductors?
49. What are insulators?
50. What is L.E.D?
51. What are diodes?
52. What is transistor?
53. What is rectifier?
54. Why are rectifier used in this project?
55. What are the two types of rectifier?
56. Which type of rectifier is used?
57. What is inverter?
58. Why is inverter used in this project?
59. What is transformer?
60. What are the two types of transformer?
61. What is A.C?
62. What is D.C?
63. What are the advantages of A.C?
64. What are the advantages of A.C?
65. What are the advantages of D.C?
66. What are the disadvantages of A.C?
67. What are the disadvantages of D.C?
68. Which type (A.C or D.C) is supplied to household?
69. Why is AC supplied to household?
70. Which type (A.C or D.C) is generated in this project?
71. Why AC generated is not directly supplied to household?
72. Why generated AC is converted into DC?
73. What is used to store DC?
74. Can AC be stored?
75. What is used to store AC?
76. Why it is not efficient to store AC?
77. Why it is efficient to store DC?
78. What is the major problem faced in electricity sector?
79. How this project helps in solving the major problem of transmission?
80. How is transmission done in this project?

81. What are the three major components of electric power system?
82. Why is maintenance cost lower?
83. What is the full form of E.M.F?
84. What is EMF?
85. On what factors will the EMF produced will depend?
86. Will the stationary magnet produce EMF in stationary coil?
87. Why the stationary magnet does not produce EMF in stationary coil?
88. Inside the coil does the position of magnet affect EMF induced?
89. Will the stationary magnet produce EMF in moving coil?
90. Why does the stationary magnet produce EMF in moving coil?
91. What is magnetic flux?
92. Which type of magnet is used?
93. Why neodymium magnet is used?
94. What is the nature of magnetic flux for generation of EMF?
95. Why changing magnetic flux is required for generating of EMF?
96. How magnetic flux can be changing in nature?
97. Will moving magnet produce EMF in moving coil?
98. Will moving magnet produce EMF in stationary coil?
99. Is the project weather dependent?
100. Why is the project weather independent?

6. HEART DISEASE PREDICTION BY MACHINE LEARNING

1. What is Machine learning?
2. Define Machine learning?
3. How many people die each year as a result of medical negligence and wrong diagnosis?
4. What does traditional programming mean?
5. Who was Authur Samuel?
6. Differentiate between traditional programming and Machine learning?
7. Why learning classification is important in Machine learning?
8. What are the two process of learning classification?
9. What is supervised Learning?
10. What is unsupervised learning?
11. Why is there a concept of unsupervised Learning?
12. Why supervised Learning?
13. Explain how is supervised Learning different from unsupervised learning?
14. What are dataset parameters?
15. What is data cleaning?
16. What is the work of Filtering?
17. What is the work of Modifying?
18. Why we check Nana?
19. What is Regression?
20. What are dependent variables?
21. What are independent variables?
22. What is logistic regression?
23. What is Linear Regression?
24. What is a binary system?
25. Write the differences between Linear regression and Logistic regression?
26. How many parts do we need to divide the data set into?
27. What is the purpose of division of the aforementioned data set?
28. Give a few examples of supervised learning algorithms?
29. Give a few examples of unsupervised learning algorithms?
30. How does a Machine Learning algorithm work?
31. Explain the sigmoid function utilized in Logistic regression?
32. Isn't it costly for the patients to collect the dataset which you are using as an input to the model?
33. Is the software able to predict whether a patient has a chance of developing a heart disease in the future?
34. Why do we use Predictive modeling?
35. What is the role of data cleaning in this model?
36. The accuracy of this model is not a % how will you deal with this?
37. Will the software still be able to predict the result if some data from the input set is missing?

38. Can you explain your code for the software to any person who is not from a technical background?
39. What is the source of dataset utilized in this software?
40. How do you handle missing or corrupted data in the dataset?
41. How would you evaluate a Logistic Regression model?
42. Are the dataset parameters used as the input sufficient enough to predict heart diseases?
43. Why only Machine Learning is used in this model?
44. Why isn't any hardware utilized in this project?
45. How can someone trust this model to predict correct answers?
46. How can you teach someone, who is not used to working with software, to use this model?
47. How much more data is sufficient to get the accuracy of this model to %?
48. What are the benefits of this model over previous models used to predict heart diseases?
49. Is this utilization of this model only aimed towards medical personnel or any user will be able to use it?
50. What kind of GUI are you using for this model?
51. Why do we care to create applications using machine learning?
52. How does ML learn from data?
53. What are features?
54. Why do we care about features?
55. How do you extract features? (Tokenization)
56. What are labels?
57. What is training?
58. What is testing?
59. How do training features and test features relate to each other?
60. Why don't we train on the test set?
61. How do ML techniques allow us to make predictions?
62. How do we measure a classifier's success?
63. What can go wrong when classifying data?
64. What's the difference between machine learning and AI?
65. How will AI and machine learning affect the future?
66. What is deep learning and how is it different from machine learning?
67. How AI, ML, Deep learning, and data science is related?
68. What Is the Market Size of ML?
69. What Are the Most Common ML Use Cases?
70. What are limitations of machine learning?
71. Define traditional program.
72. How many types of learning classification?
73. Different types of learning classification.
74. What is data learning?
75. Why we use data learning?
76. What is regression?
77. What is relation between regression and machine learning?

78. What is relation between machine learning and data cleaning?
79. What is logistic regression?
80. Define regression.
81. Differentiate between regression and logistic regression.
82. What is dataset parameter?
83. Why we use dataset parameter?
84. Which type of heart disease are we able to detect?
85. When we use dataset parameter?
86. What is supervised learning?
87. What is unsupervised learning?
88. Differentiate between supervised and unsupervised learning.
89. What is statistics?
90. Medical error affects one in how many patients worldwide?
91. What is the meaning of drop a feature?
92. Give few ways to handle missing data in Pandas?
93. Give some example of columns of dataset parameters
94. Define unsupervised learning how does it work?
95. Define supervised learning how does it work?
96. How many people die each year as a result of medical negligence and wrong diagnosis?
97. What is Arthur Samuel say about machine learning?
98. Explain with the help of diagram how does traditional program work?
99. Explain with the help of diagram how does machine learning work?
100. What is the meaning of drop missing data?

7. MAGIC FRUIT CLEANER

1. What is an acid?
2. What is a bio enzyme?
3. What is fermentation?
4. Why only citric fruit are used?
5. What is citric fruit?
6. Which acid is present in citric fruit?
7. What is the ratio of substances?
8. What are its benefits?
9. How much time it takes?
10. Why can't we use glass container?
11. Can't we use any other fruit?
12. Can we replace jaggary?
13. What is yeast?
14. Why we used yeast?
15. Is yeast is easily available?
16. What is the action of yeast?
17. What is the action of chemical on plant?
18. Why market cleaner is harmful?
19. Does this magic cleaner contain any acid?
20. What is the life of this cleaner?
21. Can everyone make the easily at home?
22. Why this is a magic cleaner?
23. Why do you think people will support this?
24. Why it needs to be stirred every day at least once?
25. What is to be done with waste (rotten) produced?
26. What is an inoculum?
27. Why to add fragrance?
28. What quantity of jaggary is to be used?
29. What is the use of citric fruit peel in this?
30. What is the use of jaggary in this?
31. Only distilled water should be used or tap water can also be used?
32. How much litre can be produced with 1kg of peel?
33. What is the other enzyme present in citric fruit?
34. Is it safe to dump the waste in plant or water bodies?
35. Do citric acid is harmful?
36. What are the constituents of jaggary?
37. Why the ratio only 1:3:10?
38. Why it takes so long time?
39. What factors can speed up this process?
40. What are the factors affecting fermentation?
41. What are microorganisms?
42. What is the action of microorganisms on the citric fruit feel?
43. Does it give any rotten smell?
44. What is to be done with the slurry?
45. Do lemon and orange both contain citric acid?
46. What are the gases produced in jar?
47. Is it cheaper than market cleaner?
48. Name the harmful chemical present in harpic?
49. Can we use it to clean both floors and toilet?

50. What is the difference between bio enzyme and chemicals?
51. What is organic solution?
52. What are carbon components?
53. Why jaggery is used in the bio enzyme?
54. What are the end products of fermentation?
55. In what ways chemical cleaners affects water bodies?
56. Why bio enzyme known as multipurpose cleaner?
57. Does bio enzyme help in reduction of water pollution?
58. Why should we have used bio enzyme instead of cleaners available in market?
59. Who told about bio enzyme for the first time?
60. Why is an airtight container required?
61. Is there any expiry date for these bio enzymes?
62. Is the washing of peels a necessary step in the making of bio enzyme?
63. Why regular stirring of mixture is is required?
64. Is regular opening and closing of container is required?
65. Why we do open and closing of the container lid?
66. Instead of brown sugar can we use white sugar?
67. Can we use dried peels instead of fresh ones?
68. Can we use frozen peels?
69. Is there any way to fast this process?
70. Can we use yeast as inoculum?
71. What is yeast?
72. From where we get yeast?
73. Name the gases that are released during fermentation process?
74. What are the advantages of bio enzyme?
75. What is frothing of lakes?
76. What are the factors that are responsible for frothing of lakes?
77. Are these bio enzymes being eco-friendly?
78. What refers to eco-friendly?
79. Can we use vegetable peels with fruit peels?
80. Which acid is present in citrus fruits?
81. Name four citrus fruits?
82. What is pollution?
83. What are the different types of pollution?
84. What are pollutants?
85. Name any 3 pollutants?
86. Can we stop some amount of pollution by using bio enzyme?
87. How pollution affect our surroundings?
88. Is this bio enzyme being expensive?
89. Can we add fragrance to this bio enzyme?
90. By adding what we get this fragrance?
91. What are pesticides?
92. Can we make pesticides at home like bio enzyme?
93. What ingredients can be used in this home-made pesticide?
94. Is this pesticide beneficial or not?
95. What is the purpose of adding jaggery?

96. Why should we use only plastic bottles as containers?
97. Is there any change in smell if we use more vegetable peels?
98. Can we use the solid waste of bio enzyme as fertilizer?
99. What is fertilizer?
100. Is bio enzyme helps in purifying the air?

8. DIAGNOSIS OF CANCER

1. What is cancer?
2. What are the types of cancer?
3. What are the main causes of cancer?
4. How does cancer start?
5. What is blood cancer?
6. What is the symptom of cancer?
7. How can human avoid getting cancer?
8. What food gives you cancer?
9. How fast does cancer spread?
10. How can you detect cancer at home?
11. What are the main causes of blood cancer?
12. What are the first sign of blood cancer?
13. Is blood cancer curable?
14. What are the types of blood cancer?
15. What Food causes blood cancer?
16. How is blood cancer detected?
17. Is blood cancer genetic?
18. What part of the body does leukaemia affect?
19. Can human die from blood cancer?
20. What is the treatment for blood cancer?
21. How do human not get cancer?
22. How to use 8051 microcontrollers in detection system?
23. How Many stages are there in blood cancer?
24. Why do people get leukaemia?
25. How does breast cancer start?
26. In any stage 4 cancers curable?
27. What leukaemia spots look like?

28. Why we use 8051 microcontrollers in detection system?
29. What age do people usually get leukaemia?
30. How can people test for leukaemia at home?
31. What is the cost of treatment of blood cancer?
32. In any stage 4 cancers curable?
33. Can human survive stage 4 cancer?
34. Is there a stage 5 cancer?
35. What is the stage 4 cancer life expectancy?
36. How terminal state 4 cancer?
37. What is 5th stage cancer?
38. What are the symptoms of stage 4 cancer?
39. What is internal bioelectricity?
40. What is bioelectric field?
41. Do human produce an electromagnetic field?
42. Write the full form of SMPS?
43. How Bio electricity is produced?
44. What is the bioelectricity produced?
45. What is background of cellular bioelectricity?
46. What is nanotechnology?
47. How to study the electrical properties of smaller
48. What is the indicator of cancer status?
49. What is the 8051 microcontrollers?
50. How many categories of cell surface charge analytical cosmetic cells or large number of cells?
51. What is SMPS?
52. Which types of filters used in the project?
53. What technology used for detection of cancer cells?
54. What are the designed circuits in project?
55. What is detection of circulating tumour cells in blood supplies?
56. What is the full form of WBCs?
57. What is the programming of microcontrollers?
58. Which types of apparatus is used in the project?
59. Various steps which are involve in project?
60. The terminology which we use in the project?
61. What are the types of blood cells?
62. What are the measured resistance of human body?
63. Comparison between body project resistances?
64. Comparison between men and women body
65. What are the resistance of body in dry condition?
66. Why we use SMPS?
67. What are the simple calculation of total body
68. What are the resistance of body in wet condition?
69. What is the full form of CTCs?
70. What are the range of the resistance in healthy
71. What is the life span of red blood cells?
72. What is public health problem in the world?
73. What are the frequency range of the blood for
74. What is the life span of platelets?

75. What are two major categories of methodology?
76. What is red blood cells, white blood cells and platelets?
77. What is the life span of cancer blood cells?
78. What is the life span of white blood cells?
79. How many stages of blood cancer are?
80. What are the different stages of blood cancer are?
81. How metastasis is spread in body?
82. How can we detect the blood cancer through electronic
83. What is blood extraction?
84. What is public health problem in the world?
85. How can conductivity meter detect the cancer in blood?
86. How long can you live with stage 4 cancers?
87. How cancer cells are different from the normal cells?
88. What kind of pain does cancer cause?
89. Where does the blood come from?
90. Can blood test detect cancer?
91. What is secreted lactic acid, a unique cancer metabolic?
92. How long does a blood test take?
93. First sign of blood cancer?
94. Which types of breast cancer can be detected at early?
95. Digonisation method of blood cancer?
96. Can cancer be cussed completely?
97. Which type of strategy and technology?
98. What are CTC techniques?
99. What is the base of cancer cells detection?
100. What are the types of tissues?

9. AEGIS

1. What is 'AEGIS'?
2. What is electricity?
3. What components are used?
4. What is energy conservation?
5. Why do we need to conserve energy?
6. How do you aim to conserve it?
7. On what principle is your project based upon?
8. Which model of the raspberry pi did you use?
9. Why are you working on this project?
10. What is Artificial intelligence?
11. How Artificial intelligence is implemented in the project?
12. What is the real world usage of AI?
13. What is raspberry pie chip?
14. Why is the raspberry pie chip used in this project?
15. What is Python programming language?
16. What is innovative about your model?
17. What types of camera are used in the model?
18. What is the function of camera in the model?
19. How is human presence detected by the model?
20. What is Machine learning?
21. What is ardunio?
22. How is ardunio different form raspberry pie?
23. What are sensors?
24. What are PIR sensors?
25. Why are PIR sensor used in the model?
26. What are other kinds of sensor available in the market?
27. How will this device control the switching on & off of appliances?
28. Explain the working of model?
29. What is cost of project?
30. What improvement can be done to the model in future?
31. What is a relay module?
32. How is model connected to existing appliances?
33. What is the drawback of existing smart device in the market?
34. How does this model overcome those drawbacks?
35. How does your project contribute in smart home?
36. What is the scope of your model?
37. How can your model contribute in smart city project?
38. What are the advantages of your model?
39. What are the drawbacks of your model?
40. How is your model cost effective?
41. What all challenges did your model face?
42. Why did you make it automated?
43. How is your model activated?
44. What is the functioning of your model?
45. What is the size of your model?
46. Why have you used both the sensor and the camera?

47. Which language is used in machine learning?
48. What are the applications of machine learning?
49. What are the future applications of this project?
50. What is the aim of this project?
51. Why didn't you include the internet in this project?
52. What is the use of Arduino in this project?
53. How will you expand your project in the future?
54. What is the use of a relay driver?
55. What if we want only some devices to work and not all while we re-enter the room?
56. How will the model work if multiple people entered the room and only some leave after some time?
57. Which software is used to program Arduino?
58. What is neural networking?
59. How is neural networking used in this project?
60. What if the sensor fails to detect the human presence?
61. Where will the data get stored?
62. How will you implement the model on an Industrial level to make it cost-effective?
63. How much electricity will be consumed by the model as it will operate 24/7?
64. What if we want the lights to remain on in the night even if no human is present in the room?
65. Do you think of it as a start-up idea?
66. How are the different components connected in the model?
67. Where will the device get installed in the room?
68. What all appliances can be connected with this model?
69. Can we include the internet in this model later on?
70. Which model of Raspberry Pi is used in the project?
71. How did you train your model?
72. Why did you use both Arduino and raspberry?
73. From where did your device get input?
74. Which algorithm did you use?
75. Explain your algorithm?
76. What is the business plan of your project?
77. What is the complexity of your model?
78. How much time did you take to build the prototype?
79. What inspired you to initiate this project?
80. What is the time complexity of your algorithm?
81. What are the social impacts of your project?
82. How much electricity consumption will the device have?
83. What is accuracy rate of device in human detection?
84. How the project does contribute toward the technological advancement of country?

85. Is IoT used in this project and if not why?
86. How the project does contribute towards smart city?
87. What kind of maintenance will the model require?
88. Which programming language did you use?
89. Which software is compatible with raspberry pi and Arduino?
90. How did you do the setup of Arduino?
91. How did interface the raspberry with Arduino?
92. How did you control the camera switching?
93. How does a relay driver work?
94. How is relay driver connected in your device?
95. How does your device turn off the appliance even with the switch on?
96. Is your device environment friendly?
97. How man maximum appliances can be connected with on model?
98. Is the energy conservation more than the device's energy consumption?
99. Is your device mobile?
100. Which of the government scheme can be incorporated using this device?

10. GREEN LEAF DISEASE DETECTION

1. What is green leaf disease detector?
2. What is detector?
3. What kind of diseases mainly seen in the leaf?
4. How this disease affects the whole plant?
5. What is rasberry pi?
6. How we used rasberry pi in this project?
7. How much range is covered by the camera in it?
8. How we used camera in this project?
9. What is GSM module?
10. How we used GSM module in this project?
11. What is the purpose of the GSM module?
12. How much supply we had to give this module?
13. What is python?
14. Why is python different from other programming languages?
15. How is the notification sent to the farmer?
16. How resberry pi detects the disease in leaf?
17. What is open CV technology?
18. How we used open CV in this project?
19. What is C programming?
20. What's the difference between the C programming and python?
21. How much space is covered by this project?
22. What is the cost of this project?
23. Can we use solar cell in it?
24. What is the aim of this project?
25. What kind of component we used in this project?
26. From which component solar cells are made?
27. What is quad copter?

28. How can we expand this project?
29. What is the use of quadcopter in this project?
30. What is the purpose of the detector?
31. Will this project can be used on the broad range?
32. What kind of programming we had to done in the rasberry pi?
33. Will we use C programming on the place of python?
34. What kind of difficulties we faced if we used C programming instead of python?
35. What kind of information is contained by the E-MAIL?
36. How leaf diseases detected by using programming?
37. How this message sending process takes place?
38. Is this eco-friendly project?
39. What do you mean by cost affective model?
40. What is the full form of the GSM?
41. What is the purpose of the resberry pi in this project?
42. What is RGB format?
43. How the image is captured by the RGB format?
44. Can be add some more features in this project?
45. How the solar cell is used in this project?
46. What is the difference between the solar cell and solar panel?
47. Can be add others facilities to this model?
48. is the solar cell be a replacement for the battery and how?
48. What do you mean by renewable energy?
49. What type of information is contained by the notification that sent to the farmer?
50. How this RGB format works?
51. How much average production loss is faced by the farmer because of these diseases?
52. Can the weather conditions affect this device?
53. How we implement this device?
54. How much time is takes in sending the notification?
55. What is the cost of this project?
56. How the solar cell used in this project?
57. How make in India is achieved?
58. Who will finance this project?
59. What do you mean by power backup?
60. What is the main work of GSM?
61. What are the drawbacks of the CV technology?
62. How it will help in decreasing the diseases of plants?
63. What is the need to conserve energy?
64. What is the aim of this project?
65. How we made this device automated?
66. How the scope of this project is improved?
67. How the model works?
68. How the model is cost affected?
69. How the model is smart?
70. What is IC in hardware used?
71. From which solar panel is made?
72. What is software?
73. What is hardware?
74. What is the need of the project?
75. What do you mean by self-sustained model?

76. How the model is maintenance-less?
77. What are the advantages of this project?
78. What are the disadvantages of the project?
79. How the model is solar activated?
80. How is it contributed to healthy India?
81. How the model is smart?
82. How the waste is retained?
83. What is open CV technology?
84. How the model works?
85. How the python is different from other languages?
86. What is RGB format?
87. How we reduce the cost of this model?
88. From which component the solar panel is made?
89. What is quad copter?
90. What is the cost of this project?
91. How the theme of renewable energy is achieved?
92. What are the advantages of resberry pi?
93. What are the advantages of the python?
94. What are the some drawbacks of C programming?
95. How we used quad copter in this project?
96. How much area is covered by the camera?
97. For what purpose we used the camera in this project?
98. Is it save the time of farmer?
99. How we improved this model?
100. What is the purpose of detector?

11. WATER DROPPLER

1. What is difference between pressure and force?
2. What is pressure head?
3. What is ground water level?
4. What is working principle of pump?
5. How does solar panel works?
6. What is renewable energy?
7. What is faucet?
8. Why we need faucet in our project?
9. Why do we need to change its design?
10. What is meant by design of a component?
11. How do we create design?
12. What is humidity?
13. What is wetted area?
14. How does wetted area can be used as for comparison between ordinary shower and our project?
15. What does a resource mean?
16. Do solar panel pollutes environment?
17. How does solar panel works?
18. What does pressurized water stream mean?
19. What is water jet?
20. How does cloud forms?
21. Which material is mostly used to made tapes?
22. What are main causes of water scarcity?
23. If total water on earth remains same in quantity then we say water resources are getting extinct?
24. What is meant by cloud like formation?

25. What is difference between design and drawing?
26. What is mass flow rate?
27. What is control volume?
28. What is Bernoulli's principle?
29. How Bernoulli's principle is related with our project?
30. What is kinetic energy?
31. What is potential energy?
32. What is pressure energy?
33. What is gravity?
34. What is desertification?
35. What zero ground water level means?
36. What is difference between molecules and atom?
37. Why does water comes out in form of stream from ordinary shower while in cloud form from our project?
38. What is moisture content?
39. How do we reduce water usage from our project?
40. What is solar heater?
41. What is difference between pipe and tube?
42. What does scale formation means?
43. How does scale formation affects our project?
44. How can we avoid its formation?
45. Does our project need maintenance?
46. How do we avoid water leakage in our project?
47. How do we avoid water leakage from water fittings?
48. Why we need pressurized water?
49. How much pressure is sufficient for our project?
50. What are different type's pumps?
51. Why water is incompressible?
52. What is continuity equation?
53. What is density of water?
54. What is orifice?
55. How do automatic taps work?
56. What is sensor?
57. How many types of sensor do exist?
58. How these sensor works?
59. How these sensors are made?
60. Which material is used to make these sensors?
61. Which sensor are we using in our project?
62. What is a microcontroller?
63. How does a microcontroller work?
64. What is microprocessor?
65. What is difference between microcontroller and microprocessor?
66. What are IC (integrated circuits) chips?
67. What is Arduino Uno?
68. How much does Arduino cost?
69. Which IC chip is used in Arduino?
70. How do we connect sensor to Arduino board?
71. How many types of connecting pins exist?
72. How do we program Arduino?
73. Which type of current does Arduino use and how much?
74. Can the program be changed or edited in Arduino?

75. What is proximity sensor?
76. How many types proximity sensor exist?
77. How does ultrasonic sensor works?
78. How do we connect ultrasonic sensor and Arduino?
79. What is breadboard?
80. Is the ultrasonic sensor dangerous for human?
81. Why we are using ultrasonic sensor?
82. Where does we find application of ultrasonic sensor in real life?
83. How much ultrasonic sensor cost?
84. Can this malfunction?
85. How does Arduino get power for operating?
86. What is AA and AAA battery?
87. What is rectifier?
88. What is direct current?
89. What is alternating current?
90. How we convert alternating current into direct current?
91. How much distant object can be detected using ultrasonic sensor?
92. How wide is the ultrasonic beam?
93. Can we use any other sensor?
94. What is total cost of our project?
95. Can we sell it as a ready to install product?
96. From where did you get the idea of this project?
97. Does anyone have worked on anything like our project?
98. How the use of this project can be advantageous to the society?
99. Does our project have disadvantageous?
100. Does it have any future scope?

12. WATER RECYCLER

1. What is objective of the project?
2. What are outcomes of project?
3. Is your project being beneficial for our society?
4. What is best part of your project?
5. What is cost of your project?
6. What are the components of project?
7. Is there is any draw back of your project?
8. What is desiccator?
9. What are the examples of desiccator?
10. What is silica gel?
11. What is composition of Silica gel?
12. Why silica gel is best among all other desiccators?
13. What is the amount of water obtained from silica gel?
14. There is any other substitute of silica gel?
15. What can be the effect of silica gel on human health?
16. What is humidity?
17. How we can measure the humidity?
18. What are the humid areas in the world?
19. Name highly humid areas in India.
20. What are the problems arising from high humidity?
21. What is suitable humidity to obtained
22. Define relative humidity.
23. What is meaning of Moisture?
24. Purpose of silica gel in this project?
25. Can we recycle silica gel?
26. How many times we can use silica gel to extract water?
27. What is the temperature required for extraction of water?
28. What is the time required to reach at sufficient temperature for water extraction?
29. How silica gel absorb moisture from air?
30. What is the phenomenon used in water absorption from air?
31. What is adsorption?
32. Difference between adsorption and absorption?
33. What amount of water is absorbed by silica gel?
34. What is the regeneration of silica gel?
35. By which compound silica gel is regenerated?
36. What is the need of the regeneration of silica gel?
37. What are substitute of silica gel?
38. Can we easily take out and put in the silica gel?
39. What are the advantages of silica gel?
40. What is time take by silica gel to absorb the water from air?
41. How is the arrangement of silica gel in this project?
42. How humidity will help in this project?
43. What type of heating element we are using in this project?
44. Can we use solar as a heating element?
45. If you are using solar energy for heating, then what is effect on its efficiency?
46. Why we use heating element?

47. What is optimum temperature range for this process?
48. What is vapor?
49. What is latent heat of vapor?
50. Is latent heat play important role in your project?
51. How we extract water form silica gel?
52. What do you mean by air density?
53. What is condensation process?
54. What type precaution you use during condensing process?
55. By which method we condense water?
56. How can you control the flow of water vapor?
57. What is the process to get water from silica gel?
58. Silica gel efficiency is affected with temperature of heating element?
59. How do you collect the water extracted?
60. What is the time taken by the whole process to get 1 liter of water?
61. What is the use of that obtained water?
62. What is the purity of that water obtained?
63. What is the material used in this project?
64. What is the electricity consumption of project?
65. How much water we can extract from the project?
66. What are the criteria to choose the dimensions of the apparatus?
67. What is the dimension of the project?
68. How much silica gel is used at a time in project?
69. What is the power of the heating element is used?
70. What are safety measures for this project?
71. What is the arrangement inside the apparatus?
72. What is the use of disc in the project?
73. What is the use of the provided slots in the disc?
74. What is the use of gates provided?
75. What is the use of hole provided?
76. What is use of helical pipe used?
77. What is material of the helical pipe?
78. What is use of beaker in the end of pipe?
79. What is the material of the beaker used?
80. Material used in fabrication of project, are suitable for silica gel or not?
81. What is the use of provided lid on the top?
82. What the basic shape of apparatus and why?
83. Is it easy to change the components of apparatus in case of damage?
84. Would this project harm the environment?
85. What is the benefit of this project?
86. What are the requirements to use this project?
87. Where we can use this project?
88. Where is the maximum efficiency of the project?
89. What are the target areas for this project?
90. Who are the targeted people for this project?
91. How this project is different from other water purifying projects?
92. Contributing to Clean India?
93. After using this project, humidity of environment will be affected?
94. Is there is any formula used to calculate amount of extract water?
95. How much life of your project?
96. Is this project efficient in summer season?

97. How air pollution affects your project efficiency?
98. Are you using any type of sensor for measuring humidity/temperature etc.?
99. Is your project work fully automatically?
100. Can we use any catalyst to increase efficiency of silica gel?

13. WATER TANK CLEANER

1. How the 'WTC System' is better?
2. What are relays?
3. What is C programming?
4. Difference between a battery and adapter?
5. Who will change its position of filter disc from a place to another?
6. How the model is innovative?
7. How the model is a permanent solution for house?
8. How it is helping to increase cleanliness?
9. What is the need to clean water?
10. How the WTC System is stopping 'water borne diseases'?
11. How the WTC System is cost effective?
12. Why we have made it automated?
13. How the scope of the project improved?
14. Which components in the project have used?
15. What is the aim of the project?
16. For What purpose relays have been used?
17. What is the cost of the project?
18. What is the need of the project?
19. What do you mean by making Smart Home?
20. What do you mean by cost effective model?
21. What is hardware?
22. What is software?
23. How the model works?
24. How the model needs maintenance?
25. What are the advantages of the project?
26. How the model works?

27. What kind of components has been used in the project?
28. What is the function of Arduino Microcontroller?
29. How is it contribution to Healthy India and Clean India?
30. What is full form of WTC?
31. Why does the water tank cleaner is named so?
32. Name the basic components used in WTC?
33. What is use for filtration of water?
34. How much time it takes to clean the tank?
35. Where you setup your WTC hardware?
36. How mush relays is used in the project?
37. What is the angle of servo motor?
38. Which motor is used to lift the filter disc?
39. What is DC motor?
40. How do you rotate the wiper?
41. What is working of servo motor?
42. What is the position of wiper to clean the filter disc?
43. What is the rpm?
44. What is the coding behind the system?
45. What is the motive to make this project?
46. Why did you use arduino micro controller?
47. What does the effect falls in the house after install this system?
48. How would you install the whole system is house?
49. Does this system have durability?
50. Why it needs Vcc power supply?
51. Is this system can work upon AC supply?
52. Does it clean the salts present inside the water tank?
53. What is the impact on daily life?
54. What is the impact on taps?
55. What is the impact of this project upon pipes (mostly metal)?
56. What are the major consequences may arise of this project or system?
57. Why did you use a disc to filter the tank water?'
58. What is use of filter disc in cleaning process?
59. How would you lift the disc with motor?
60. How much rotation we have to give to rotate the motor?
61. How would you clean the side walls of the water tank?
62. How did you connect all these components?
63. Is relay can be replaced with something else?
64. If relay can be replaced then what it can be?
65. Is this system can be operated with battery?
66. What the max amount of water this device can clean?
67. What is the maximum amount of water should present in the tank for this automated Cleaning procedure?
68. Is this system suitable for larger water tank cleaning?
69. What is hard water and soft water?
70. What is difference between AC and DC?
71. Why don't we need to empty the whole tank before cleaning?
72. Does this system can cause short-circuit or current flow in water?
73. What is jumper wire?

74. Does it can be installed in regular house water tank?
75. What is the regular cleaning procedure of water tank cleaner?
76. What is the regular time period of cleaning water tank in our houses?
77. What are impacts fall upon the clothes washing?
78. During cleaning procedure, does the filter disc remain dipped inside the water?
79. What type of cleaning agent is used to clean the tank?
80. Does this system start automatically or manually?
81. Where did the dust/roughage go after cleaning?
82. How much time it takes to clean water tank?
83. What is the basic principle behind the DC motor?
84. What is the angle of the servo motor to rotate the wiper appropriately?
85. Which language is used to code the system working?
86. Which software is used to code the system working?
87. What is the effect fall upon when water isn't clean?
88. When do we get to know that the tank has to be clean?
89. Does this system has alarm or something, which can tell the tank, has been cleaned?
90. What is loop in arduino coding?
91. What are side-effects arise of unclean water on health?
92. Which plastic material is used to build house water tank?
93. How this system can take its place in today's market?
94. What are the impurities present in water tank's water?
95. How much impurities can be vanished after cleaning by this system?
96. Is this system cost more than the manual process of cleaning?
97. How does a tank clean with manual procedure?
98. What are the cleansing agents used in cleaning process?
99. Does the salt present in the tank is soluble or not?
100. What is the cleaning process may require for the storage tanks in industries?

14. ELECTRIC WATER EFFICIENT FLUSHING SYSTEM

1. How is electronic, water efficient flushing system equipped toilet better than normal toilet?
2. How it is water efficient?
3. Will it be safe to use? As there are several sensors on the seat itself?
4. How various toilet of a particular society will be grouped together with a single vacuum pump?
5. How much economical it will become after grouping of toilet?
6. Wouldn't it cause pipe blockage?
7. How vacuum pump will be fitted and where?
8. What is non-returnable valve?
9. What is pressure gauge and how it is being used in this project?
10. What is TROP sensor?
11. What is the need of hot air spray in this model?
12. How much time it will require to complete the whole flushing process?
13. What is Aurdino?
14. What are relays?
15. What is HX711 A to D convertor?
16. How much voltage does all the sensor and aurdino will require?
17. How aurdino is programmed?
18. What time interval is allotted to all the three units to operate?
19. If we consider the cost of water it is saving in how much time it will recover its installation cost?
20. How this model is worth using in household?
21. Is there would be any backup system in case we want to flush out something?
22. Would there be any button in case we want to flush out something?
23. To implement this model, will there be any required to modify the toilet seats?
24. Can we implement this model in existing toilet seat?
25. What else improve mentation could be done in this model to conservative water a bit more?
26. How this system will affect the size and shape of toilet seats?
27. How this model will manage to eliminate the unpleasant smell of human waste?
28. How this model will detect whether the person has ejected solid waste or liquid waste?
29. Will vacuum pump be operated in case of liquid waste only?
30. Can this flushing be done meanwhile the person meanwhile the person is sitting and getting fresh?
31. How the problem of reverse suction will be solved?

32. Explain grouping of several toilets seat together with neat diagram?
33. With rough estimates compare the cost of a single unit with that of grouped unit?
34. In case of grouped toilet seats if one toilet is flushing than how others will be prevented?
35. Wouldn't the loud sound of vacuum pump will be bothering people with sensitive ears?
36. Is there any maintenance at fixed periods will be required in this model?
37. Will this model be recycling liquid waste to give pure water or something like that?
38. Why this model is quite a bit expensive?
39. How is the available of vacuum pumps water spray pump and hot air spray in major cities in India?
40. How's the availability of electronics used in this model?
41. How easy its repairing would be and how quick?
42. Why can't we implement this model in existing toilet seats?
43. Is there any such model exist in this model in the market?
44. What is the major difference between this model and vacuum toilets used in flights?
45. Why those vacuum toilets are so expensive?
46. How this model is cheaper than those vacuum toilets?
47. What about the reliability of this model?
48. How the programming of aurdino is is done?
49. How complex it is? How much time it would take?
50. Can programmes of aurdino be rewriteable?
51. Is there any other option for controller other than aurdino?
52. Which controller is most reliable/
53. Will this model be able to clean the waste properly/as it is using very less amount of water
54. What will be the cost of this model when PLC is employed/
55. How PLC implemented model can be made economical/
56. What will be the rough estimated cost of this model when grouped a number of seats and PLC is used as a controller/
57. Could there be any alternative of pressure gauge/
58. Could there be any alternative to TSOP/
59. Which one will be better ultrasonic sensor or TSOP/
60. What will be the drawback of ultrasonic sensor<if used in this model/
61. If we use PLC then<should we need another set of sensors or same will going to work/
62. What kind of module we need to employee with sensors/
63. At what volts PLC works/
64. What is SMPS/
65. Which MCB is used/
66. Why MCB is used in PLC circuit/

67. How much a PLC unit cost?
68. How PLC programing is done?
69. How complex is PLC programing?
70. Can we program PLC through logic available on internet?
71. Can we program aurdino with codes available on internet?
72. How much money we could save if we made this model manual?
73. What is software?
74. What is hardware?
75. How this model works?
76. How does relay works?
77. How many types of relay are their?
78. Which type of relay is being used here?
79. Which TSOP is used here?
80. What are the advantages of this model?
81. Which market problem does this model solve?
82. What different components are there on aurdino board?
83. What is crystal oscillator?
84. What is micro controller ic?
85. What is the limit of ultra-sonic sensor?
86. What are limit of TSOP sensor?
87. Doesn't the heat of hot air spray will destroy the sensor?
88. Which section of people are the target audiences of this model?
89. What kind of water pump is being used here?
90. What kind of vacuum pump is being used here?
91. How hot air spray will be producing heat?
92. What are sensors?
93. How MAKE IN INDIA IS achieved?
94. What do you mean by permanent solution?
95. How it is contributing to HEALTHY INDIA and CLEAN INDIA?
96. How this model is made automated?
97. How this model works?
98. What do you by cost effective model?
99. Is this model is solar activated?
100. What do you mean by self-sustained model?

15. BIO PLASTIC

1. What is bioplastic?
2. Importance of bioplastic?
3. Bioplastic advantange?
4. Why we need bioplastic?
5. Bio plastic Application in Medical Industry?
6. What is biodegradation?
7. Are natural fiber filled polymer composites part of bioplastics?
8. What does bio-based plastic mean?
9. What is vulcanization?
10. What is starch?
11. What is the need of vinegar in bioplastic?
12. What is main role of zinc in bioplastoic?
13. What are plastic?
14. Why the difference between bioplastic and hydrocarbon is based plastic?
15. Why is hydrocarbon plastic harmful to environment?
16. Is bioplastic harmful to nature?
17. How much time is required to make bioplastic?
18. When as bioplastic first discovered?
19. Is bioplastic used now in India?
20. What is the production cost of bioplastics?
21. How much agricultural area is used for bioplastics?
22. Why does the bioplastics industry use agricultural resources?
23. What are the advantages of bioplastics?
24. What are the main characteristics of the bioplastic market?
25. Are bioplastic products penetrating the plastics market?
26. How large is the bioplastics market – currently and in future?
27. How many people are employed in the European bioplastics industry today?
28. Can fossil-based plastics be completely substituted by bio-based bioplastics?
29. What are the economic advantages of bioplastics?
30. Are bioplastics more expensive than conventional plastics?
31. Where are bioplastics already being used?
32. Are bioplastics applied in mainly short-lived product?
33. How accepted are bioplastic products by consumers?
34. Which retailers and brand owners are already using and selling bioplastics?
35. What are bioplastics made of?
36. How many types of bioplastic?
37. Write Bioplastic Properties?
38. Environmental impacts of bioplastics?
39. What is cellulose based plastics?
40. What is starch based plastics?
41. Define bio derived polyethylene.
42. What is called non-diodegradation?
43. What types of bioplastics do exist and what properties do they have?

44. Is there a certain percentage threshold value that marks the minimal bio-based carbon content / bio-based mass content in a product/ material to be called bioplastics?
45. Are the properties of bioplastics equal to those of conventional plastics?
46. Are bioplastics edible?
47. Are any contaminants or harmful substances left behind when compostable plastics biodegrade?
48. Can bioplastics be integrated into established recycling and recovery schemes?
49. Can bioplastics be mechanically recycled?
50. What is meant by 'organic recycling'?
51. What does biodegradable plastic mean?
52. What does compostable plastic?
53. What applications make use of bioplastics?
54. What are the disadvantages of bioplastics?
55. Any naturally occurred or biologically based plasticizer available bioplastic production?
56. Can Bioplastics Derived from Genetically Modified Plants be a Panacea for Carbon Footprint Reduction in the Thermoplastic Industry?
57. What is Green plastics?
58. How it is possible emerging industry focused on making convenient living consistent with environmental stability?
59. What are the chemical principles behind chloroform-methanol extraction?
60. How to synthesis bioplastic? How can we use commercially?
61. How can I extract cellulose and starch from Sulphated Polysaccharides?
62. Can bioplastics be effective enough to replace non - bio degradable plastics?
63. Suggest me plants to extrude fiber to prepare composites?
64. How do I prepare bioplastic from solid digestate of anaerobic digestion?
65. Where can we use hyaluronic acid and bioplastics(PHA/PHB) together?
66. Cellulose based bioplastic production?
67. What is extraction method for Bioplastic (PHB/PHA) produced from the Bacteria?
68. Which strain (and particularly which cyanobacter) is better than others in bioplastic production?
69. How to synthesis bioplastic materials by using cellulose?
70. How to beef up a bioplastic from starch?
71. What's the best method of testing for microbial potentials in plastic biodegradation?
72. How bio-plastic can be made waterproof?
73. Is pectin based bioplastic reinforced with lignin a feasible method?
74. The best microorganism (Specifically in micro-algae) for bioplastics production
75. How do I interpret Thermogravimetric Analysis (TGA)? Data of irradiated biopolymer meaningfully? Digesting bioplastcs (PLA)?

76. Why bioplastic/biocomposite produced is cracking/low mechanical strength once filler from organic substances are added?
77. What can be feasible alternative/solution for plastic?
78. Is it okay if i use an oven to speed up the cooling of a bioplastic mixture?
79. What are the differences between bioplastic and synthetic plastic?
80. Is there any water-insoluble binders that I can use in the making of bioplastics?
81. Temperature effect in bioplastic.?
82. Write any three components to making bioplastic?
83. Which compound use for improve thermal resistance?
84. Why need glycerol?
85. Write the name of instrument use for making bioplastic?
86. How can extract starch form banana peel?
87. How economical effect by bioplastics?
88. Why magnetic stirrer use?
89. Which microorganism use for biodegradable plastic?
90. Which year discover plastic?
91. Define Protein based plastics?
92. Define lipid derived polymers?
93. Who John Wesley Hyatt.?
94. What are bioplastic and biopolymers?
95. Write advantages of bioplastic and polyethylene plastics?
96. Write disadvantages of bioplastic and polyethylene plasics?
97. Bioplastics effect in water bodies?
98. What are role bioplastics in future?
99. Impact of plastics in environment?
100. Polyethylene plastics effects in soil, who replace it?

16. PRAGYAN ROVER

1. How is the 'Pragyan Rover' better than normal rover?
2. What is rover?
3. How are we implementing the concept on space through this rover?
4. Why mars exploration is important?
5. Difference between a lander and rover?
6. What is rocker bogie mechanism?
7. How much weight it can carry?
8. How will you manage to control the rover from the earth?
9. What do you mean by exploration?
10. Who will change its position from a place to another?
11. How the model is innovative?
12. What is RF Module?
13. What are IR sensors?
14. What are capacitors?
15. How the PRAGYAN ROVER is self-sustained?
16. Why do we need such space missions?
17. From which material the solar panels are made?
18. How rover works?
19. How rover is different from lander?
20. How sensors are used to explore?
21. Where are IR sensors used in the project?
22. How power management achieved?
23. What makes rover robust?
24. Does this mechanism can be used somewhere else?
25. How are we implementing the concept on space through this rover?
26. Difference between a battery and a capacitor?
27. What are solar cells?
28. What is meant by sensors based monitoring?
29. What is the need to conserve energy?
30. What are the drawbacks of existing rover?
31. What else tasks it can perform?
32. What do you mean by power backup?
33. What do you mean by rocker bogie?
34. Does it can travel underwater?
35. Who will take care of the renovation of the rover?
36. Who will finance the project?
37. How the navigation of rover is done?
38. What is the work of control room?
39. How the Pragyan rover is cost effective?
40. Why we have made it automated?
41. How the scope of the project improved?
42. How rover will go to the moon?
43. How Make in India is achieved?
44. Which components in the project have used?
45. What do you mean by RENEWABLE ENERGY?
46. What is the main work of motor drivers?
47. What is the aim of the project?
48. For what purpose LEDs have been used?
49. What is the cost of the project?
50. How the sensors are helping in protecting itself?
51. How the power management is achieved?
52. How will go inside rocket?
53. What is the need of the project?

54. How the rover will isolate itself from lander?
55. What type of sensors is used in project?
56. How it will send live images of site?
57. What are the technologies used in communication?
58. How the sensors are helping in protecting itself?
59. What is the mechanism of rover?
60. What are the components used in it?
61. Benefits of using solar panel in it?
62. What do you mean by exploration?
63. How the model is cost affected?
64. Which mechanism is used in this rover?
65. What do you mean by self-sustained model?
66. How this rover is different?
67. What kind of sensors have been used in the project?
68. What is rocker bogie mechanism?
69. What is the use of rover?
70. What do you mean by space missions?
71. What do you mean by Innovative pragyan model?
72. What do you mean by making construction robust?
73. How the model is solar activated?
74. What do you mean by cost affective model?
75. What is hardware?
76. What is software?
77. How the model works?
78. How the rover will take sample there?
79. How the model is maintenance free?
80. How the model is smart?
81. For what purpose rocker bogie mechanism have been used?
82. How can we search the location of rover?
83. How it will be used to for automation?
84. What are the advantages of the project?
85. How the model works?
86. Does it is a full working model?
87. Does Humans can be send through this rover?
88. How much weight it can carry?
89. What kind of components have been used in the project?
90. What is the function of Microcontroller?
91. How it will take sample there?
92. How it will gather all important information?
93. Does it can send live information?
94. Why power management is needed?
95. What will be the gravity there?
96. What will be the weight of rover there according to the gravity there?
97. What is the revolution rate around sun?
98. How this rover has better mechanical stability?
99. What kind of mechanics used in this rover?
100. How it benefits to the society?

17. AUTONOMOUS FARMING BOT

1. How is the Agricultural Robot better than normal toilets?
2. What are resistors?
3. How are we implementing the concept Agricultural Robot?
4. What is C programming?
5. Difference between a battery and a capacitor?
6. What are solar cells?
7. What are the functions of LED in the project?
8. Who will manage the control room?
9. What do you mean by revenue generation?
10. Who will change its position from a place to another?
11. How the model is innovative?
12. What is RF Module?
13. What are IR sensors?
14. What are capacitors?
15. How the is Agricultural Robot Time efficient?
16. How the model is a permanent solution for Small House farming?
17. From which material the solar panels are made?
18. How PV pumps work?
19. How solar panels are solar cells are different from each other?
20. How sensors are used in less water requirement?
21. Where are IR sensors used in the project?
22. How waste management achieved?
23. Who will Paddy straw collection will be done in future?
24. How it is helping to increase productivity?
25. How the person can operate?
26. How we can stop pollution through the project?
27. Why Present techniques are not that automated?
28. What is meant by sensors based monitoring?
29. What is the need to conserve energy?
30. What are the drawbacks of Current paddy disposal technique?
31. How agricultural and disposal techniques are improved in the project?
32. What do you mean by power backup?
33. What do you mean disposal techniques?
34. How the Smart agricultural robot is stopping 'water borne diseases'?
35. Who will take care of the maintenance of project?
36. Who will finance the project?
37. What is imaging processing Technology?
38. What is the work of control room?
39. How is important for economy?
40. Why we have made it automated?
41. How the scope of the project improved?
42. How it will be decomposed?
43. How Make in India is achieved?
44. Which components in the project have used?
45. What do you mean by RENEWABLE ENERGY?
46. What is the main work of voice processor?

47. What is the aim of the project?
48. For what purpose LEDs have been used?
49. What is the cost of the project?
50. How the sensors are helping in waste management in the project?
51. How the waste management is achieved?
52. What is bio product?
53. What is the need of the project?
54. How the themes are achieved?
55. What are sensors?
59. What is psychiatrist?
60. What are PV pumps?
61. From which solar panels have been made?
62. What do you mean by permanent solution?
63. How the model is cost affected?
64. What work will control room do?
65. What do you mean by self-sustained model?
66. How our Waste?
67. What kind of sensors has been used in the project?
70. What do you mean by RF Module system?
71. What do you mean by Innovative Sanitation Model?
72. What do you mean by making smart slums?
73. How the model is solar activated?
74. What do you mean by cost affective model?
75. What is hardware?
76. What is software?
77. How the model works?
79. How the model is maintenance less?
80. How the model is smart?
81. For what purpose LED have been used?
83. How the control room will work?
84. What are the advantages of the project?
85. How the model works?
86. What is ' IC's ' in hardware used?
87. How the person will come out if he/she got sticker inside?
88. How the theme of renewable energy is achieved?
89. What kind of components have been used in the project?
90. What is the function of Arduino Microcontroller?
91. What are the waste management techniques of the project?
92. How the waste is used or retained?
93. For what purpose biogas would be used?
94. Why waste management is needed?
95. Why biogas production is needed?
96. How the model is made automated?
98. In which areas can be implemented?
99. How is it contribution to Healthy India and Clean India?
100. What is a GSM Module?

18. MOUSE EVENTS CONTROL USING HAND GESTURES

1.) What is Computer?
2.) What is Mouse and Keyboard?
3.) What is Brain and part of computer acts as brain?
4.) What is Webcam?
5.) What is Software and Hardware?
6.) Difference between software and hardware?
7.) What is Program and Language?
8.) What Language does computer understand?
9.) Which part of computer can act as eye of it?
10.) What are Sensors?
11.) What is Sign Language?
12.) What are Gestures? State some Examples of it.
13.) How Gestures help people and where they are used?
14.) Where gestures are used in mobile phones?
15.) How a mobile read or recognizes gestures?
16.) How gestures can be used in Computer?
17.) Benefits of Gestures in our daily life?
18.) What is programming Language?
19.) Give some example of Programming language.
20.) What is Python?
21.) What do you understand by Computer Vision?
22.) What is OpenCV?
23.) What is Data?
24.) What is Database?
25.) What is table and record?
26.) Write some name of Database used.
27.) What is library?
28.) What is Vision?
29.) How we can control function of Keyboard using Mouse?
30.) What is Biometric?
31.) What is Security?
32.) What is Authentication?
33.) What do you mean by static and dynamic?
34.) What is Human Computer Interface?
35.) How Human and Computer Interact with each other?
36.) What is HSV Color System?
37.) What is RGB Color System?
38.) What are Coordinates?
39.) What is Coordinates System?
40.) What is meant by Virtual?
41.) What do you understand by Virtual Coordinates System?
42.) What is image and Video?
43.) What is processing?
44.) What is array?
45.) What is Image Processing?
46.) What is input and output device? Name Few.
47.) Define Feature and Extraction.
48.) What is Feature Extraction?
49.) What is calibration?
50.) What is Centroid?
51.) What are screen and Pixels?
52.) What is touchscreen and differentiate it with normal screen?
53.) Role of Gesture in our Proposed Project?

54.) Does poor or low light condition affect our project?
55.) How to resolve the low light problem?
56.) How efficient our model/program is?
57.) Can this be made more effective?
58.) What is learning?
59.) What is Artificial Intelligence?
60.) What is Machine Learning?
61.) What is Real-time System?
62.) Whom does this project Benefits?
63.) What is the Scope of the project?
64.) Does this have negative impact on people?
65.) What is Internet?
66.) Does it require internet for using this project?
67.) Can Internet connection benefit on the usage of this project?
68.) What do you understand by Project name "Mouse Events Control using Hand Gestures"?
69.) What is Range?
70.) What is the range, so that the computer can read gesture?
71.) What are the events that can be controlled by the hand gesture?
72.) What is the best condition for the project in which it can perform with less or no error?
73.) What is the cost incurring on the project made?
74.) Can this be affordable to common and needy people at reasonable price?
75.) Can this project act as a business model in future?
76.) Does this affect the security of System?
77.) Give some advantages of this Project.
78.) Give Some Disadvantages of this project.
79.) What is Wired Communication?
80.) What is Wireless Communication?
81.) What is gesture recognition area?
82.) What are datasets?
83.) What is Operating System?
84.) On which Operating System is this project compatible with?
85.) What is the Processing speed or time? Is it fast or slow?
86.) What are various approaches to implement this project?
87.) Requirements of this project.
88.) How gestures are used in communication?
89.) Can we enable or disable this functionality as and when required?
90.) Places where this software can be used.
91.) What is CPU?
92.) What is wireless Keyboard and Mouse?
93.) What are Bluetooth and Wi Fi?
94.) What is range for Bluetooth and Wi Fi?
95.) What is RAM and Memory?
96.) What is Intensity?
97.) What is Contour?
98.) What is Color and Skin Detection?
99.) What are External and Internal Devices?
100.) How External Devices are connected to the Computer?

19. COMMERCIAL BIN

1. What is the meaning of Commercial Bin?
2. What is Android?
3. What is a sensor?
4. What are the different types of sensors?
5. What is a QR code?
6. How to generate a QR code?
7. What is Database?
8. What is Firebase?
9. What is Arduino?
10. What is software?
11. How is this project contributing towards increase in cleanliness?
12. How is this model innovative?
13. What is Android Studio?
14. What is IOT?
15. What is GPS?
16. How to generate QR code?
17. What is UI?
18. What is the need of batteries in Arduino?
19. Which sensors are used in this project?
20. What is IR sensor?
21. What is Bluetooth sensor?
22. How is waste management achieved?
23. Why is there restriction on number of times the dustbin is used?
24. Who will finance for vouchers?
25. What is the concept of ads in App?
26. What is the cost of project?
27. What is hardware?
28. Why is Arduino used?
29. How to make android interact with arduino?
30. What is binary system?
31. What is the use of 0 and 1 in this project?
32. Why IR sensors are used?
33. How to detect that bin is completely full?
34. How to make login id for user?
35. Why will anybody use this bin?
36. How to make people aware that bins are full and not to go there?
37. What is the difference between red and green dots on map?
38. How to redeem the vouchers generated?
39. Where to use the points earned?
40. What is the overall idea of point system?
41. What are the advantages of project?
42. What is different in this project than the previous existing ones?
43. How this model works?
44. How is Commercial Bin better than other smart bins?
45. What language is used for coding?
46. What is Java?
47. What are the loopholes overcome in this project?
48. What will influence the people from using this application?
49. What is Operating System?
50. What is the main idea of this project?

51. Can we detect the waste thrown outside of the dustbin?
52. How does arduino work?
53. Difference between bluetooth sensor used and bluetooth in mobile?
54. Can we set the range for IR sensor?
55. What is range of bluetooth sensor?
56. How will we code in arduino?
57. Difference between python and java?
58. Why python is used for arduino programming?
59. When do these sensors will switch on in the process?
60. Model works on how much battery?
61. Can we add some other sensors to this model?
62. How this model is commercial?
63. Can we make it more fun?
64. Where will we install the dustbin?
65. After how much time we have to replace batteries?
66. Is this Project for existing Infrastructure?
67. Can we use camera in this model?
68. How can camera help us?
69. Why there is no GPS in arduino?
70. Will there be any other feature of android app?
71. How can this project help the government?
72. Will this identify dry and wet waste?
73. What sensor can identify wet waste?
74. How wet waste can be identified?
75. Why there is less accuracy in segregating dry and wet waste?
76. Can one arduino trigger two IR sensors?
77. What an UV sensor do?
78. Why did not we use weight sensor?
79. What are criteria for rewards amount?
80. Can we use application using facebook?
81. How bluetooth of mobile will automatically start?
82. Will data of all the transactions be stored?
83. What can we do with data?
84. Will lid of dustbin automatically open?
85. What is innovation in this model?
86. What is approx. cost for a single dustbin?
87. How many days it will take to prepare the model?
88. From where will we get the hardwares?
89. What types of wires will be used?
90. What platform is used for arduino programming?
91. What is Arduino IDE?
92. How do the pins do in these sensors?
93. Why are we using batteries?
94. What is requirement Volts of hardwares?
95. Size of model?
96. Where it will be installed first?
97. Why we are putting two dustbins connected with one arduino?
98. From where are you generating QR code?
99. What are Disadvantages?
100. What are Advantages?

20. ADVANCED GARBAGING MACHINE

1. Objective of your project?
2. What are resistors?
3. How much it is cost Consumed?
4. What is C programming?
5. Difference between a battery and a capacitor?
6. What are solar cells?
7. What are the functions of LED in the project?
8. Which will be Targeted area (city/Rural)?
9. What do you mean by revenue generation?
10. How much time it will take to come in market?
11. How the model is innovative?
12. What is RF Module?
13. What are IR sensors?
14. What are capacitors?
15. What is hydraulic system?
16. How much pressure required lifting the container?
17. In what principles loader will work?
18. What is the function of vacuum cleaner in the project?
19. How solar panels are solar cells are different from each other?
20. How much it is consumed fuel?
21. Where are IR sensors used in the project?
22. How waste management achieved?
23. How loader will work?
24. How it is helping to increase cleanliness?
25. What is the process to making the IC?
26. How we can stop urbanization through the project?
27. Why it need to society?
28. What is meant by sensors based monitoring?
29. Who drive the vehicle?
30. What type of technology will be used to composite the waste?
31. What is the microcontroller?
32. What do you mean by power backup?
33. What do you mean AGM?
34. How it gets placed in market?
35. Who will take care of the renovation of the toilet?
36. Who will finance the project?
37. What type of material is used to making IC?
38. What is the work of control room?
39. What is the programing Language?
40. Why we have made it automated?
41. How the scope of the project improved?
42. How side loaders differentiate between the containers?
43. How Make in India is achieved?
44. Which components in the project have used?
45. What do you mean by sensor based controlling?
46. How many loaders will be used in the AGM?
47. What is the aim of the project?
48. For what purpose LEDs have been used?
49. What is the cost of the project?
50. How the sensors are helping in waste management in the project?

51. How the waste management is achieved?
52. How many compartments will be in the AGM?
53. What is the need of the project?
54. How the themes are achieved?
55. What are sensors?
56. Where IR sensors have been used?
57. What are IR sensors?
58. What will be used to create the vacuum?
59. What is the difference between the solar cells and solar panels?
60. How garbage is pull down from AGM?
61. From which solar panels have been made?
62. What do you mean by permanent solution?
63. How the model is cost affected?
64. How the sensor will helping in garbage collection?
65. What hazards waste will be composed?
66. What is the Hazards waste?
67. What kind of sensors has been used in the project?
68. What materials will be used in the AGM?
69. What is AGM?
70. What do you mean by RF Module system?
71. What do you mean by composting?
72. How much garbage will be collected in a day?
73. How the model is solar activated?
74. What do you mean by cost affective model?
75. What is hardware?
76. What is software?
77. How the model works?
78. What is the organic waste?
79. How the model is maintenance free?
80. How the model is smart?
81. For what purpose LED have been used?
82. What is the inorganic waste?
83. How the control room will work?
84. What are the advantages of the project?
85. How the model works?
86. What is ' IC's ' in hardware used?
87. How the person will come out if he/she got sticker inside?
88. How the theme of renewable energy is achieved?
89. What kind of components has been used in the project?
90. What is the function of Arduino Microcontroller?
91. What are the waste management techniques of the project?
92. How the waste is used or retained?
93. What do you mean by making smart garbage container?
94. Why waste management is needed?
95. What is the basic principle of the project?
96. How the model is made automated?
97. What is the need of the AGM?
98. How will the garbage go to the plant?
99. How is it contribution to Healthy India and Clean India?
100. What is a GSM Module?

21. LANDSLIDE DETECTION SYSTEM

1. What is a landslide?
2. What is meant by "tremor"?
3. What is meant by "moisture"?
4. What is meant by "acceleration"?
5. What is meant by "viscosity"?
6. What is meant by "detection"?
7. What are the reasons for landslide?
8. Where does landslide occur?
9. What are the landslide prone areas in India?
10. What is a detection system?
11. Why a detection system is needed?
12. What are factors that affect landslide?
13. What are the components required for landslide detection system?
14. What is a microcontroller?
15. What does a microcontroller do?
16. Which microcontroller is used in the landslide detection system?
17. What are the advantages of using this ardinuo microcontroller?
18. What are the demerits of using this microcontroller?
19. What is a sensor?
20. What does a sensor do?
21. What are different types of sensors available?
22. Which sensors are used in the project?
23. What is the range of each respectively?
24. On which principles does the project work?
25. What are difference between a microprocessor and a microcontroller?
26. What are the advantages of using microcontroller?
27. What is a module?
28. What are the different modules used in the project?
29. What is meant by the "frequency"?
30. What is the frequency of arduino microcontroller?
31. What is the unit of frequency?
32. What is a signal?
33. How it is used in a microcontroller?
34. What is an analog signal?
35. What is a digital signal?
36. What is meant by "clock signal"?
37. What is the difference between an analog signal and digital signal?
38. Where the analog signal and digital signals are given on a microcontroller?
39. What are the total numbers of pins available on the microcontroller?
40. How many pins are available on the Arduino microcontroller for analog input?
41. How many pins are available on the Arduino microcontroller for digital input?
42. Why does the reset button on the Arduino microcontroller is used?
43. Why GND pin is used in Arduino microcontroller?
44. What are the different ways of connecting?

45. What is a wireless connection?
46. What is a wired connection?
47. What are different types of wireless connections?
48. Which way is being used for inter connectivity between system and devices?
49. What is Wi-Fi?
50. What does Wi-Fi stand for?
51. Why Wi-Fi connectivity is provided to the microcontroller?
52. What is the benefit of connecting devices through Wi-Fi over Bluetooth?
53. How the connectivity of Wi-Fi is provided to the microcontroller?
54. Which module is used for Wi-Fi connectivity?
55. What is Bluetooth?
56. Why Bluetooth is used?
57. How the power supply is given to the Arduino microcontroller?
58. How much power is needed by Arduino microcontroller to work?
59. What is a Node MCU?
60. What is the advantage of using Node MCU over Arduino microcontroller?
61. What are the components of Node MCU?
62. How many pins are there in a Node MCU?
63. What are the limitations of this project?
64. How the limitations can be overcome?
65. What is a network?
66. What are the different types of network available?
67. What is meant "LAN"?
68. What does "LAN" stand for?
69. What is meant "WAN"?
70. What does "WAN "stand for?
71. What is the range of LAN?
72. What is the range of WAN?
73. How many devices can be connected on a LAN?
74. How many devices can be connected on WAN?
75. What is meant by "protocol"?
76. What is meant by "MQTT"?
77. What does MQTT stand for?
78. What does IP stand for?
79. What is the advantage of MQTT protocol over TCP/IP?
80. What is a probe?
81. What is the cost of project?
82. What is the cost of the Arduino microcontroller?
83. Why the project has been considered as cost effective?
84. What improvements have been done in this project as compared to existing project?
85. What are the existing systems available for landslide detection?
86. How this system is better than the existing system for landslide detection?
87. How this system can be made more sensitive?
88. Which technology can be used as a backup plan for this project?

89. What is meant by communication?
90. What is satellite communication?
91. What is GSM?
92. What does GSM stand for?
93. How does GSM work?
94. How many devices can be connected on the formed network at a time?
95. Which user interface is being used in the devices?
96. How a person will get access of the system?
97. How the persons will be notified about the status of landslide?
98. What is blynk?
99. Why blynk is used in the project?
100. How the sensors are configured with "blynk"?

22. MULTI FUNCTIONALITY OF PLANTS

1. What are the different types of pollution?
2. What are the main causes of air pollution?
3. What is vehicular pollution?
4. What are the unburnt particles called?
5. What do you mean by SOx, NOx, and COx?
6. What are aerosol particles?
7. What is fine dust and particulate matter?
8. What is the size of fine dust?
9. What do you mean by Smog?
10. What do you understand by dust absorbing plants?
11. Name few dust absorbing plants.
12. What do you mean by biodegradation?
13. Define bioremediation.
14. What are the two process of bioremediation?
15. What are the two types of bioremediation?
16. What do you mean by aerobic and anaerobic remediation?
17. Give the difference between aerobic and anaerobic remediation.
18. What is the meaning of phyto and phyllo?
19. What do you mean by phylloremediation?
20. What do you mean by phytoremediation?
21. Give the different processes of phytoremediation?
22. What is the use of phytoremediation in our daily life?
23. Define phloem and xylem.

24. What is the need to perform this remediation process biologically?
25. What do you understand by phytostabilization process?
26. Explain rhizofiltration process.
27. Where does the process of rhizofiltration occur?
28. What is phytovolatization?
29. Name the metals which are treated in the phytovolatization process.
30. What are heavy metals?
31. Name five heavy metals which act as pollutants to the environment.
32. Which process forms the basis of phytovolatization process?
33. What is phyllosphere?
34. What is metabolism?
35. How is metabolism process carried out?
36. Define absorption and adsorption.
37. How are toxic contaminants converted into non-toxic contaminants?
38. What are the different parts of leaf?
39. Define petiole and mid-rib.
40. What makes leaf green in colour?
41. Which process is carried out by leaves?
42. What is the role of micro-organisms in the remediation process?
43. In which part of the plant, the mobile contaminants are stored?
44. In which process the chemical contaminants are treated?
45. What is hydroponic system?
46. What do you mean by hyperaccumulator?
47. Define the process of chelation.
48. What is accumulation of metal in leaves?
49. What process is known as "Metal-EDTA Chelate"?
50. What is phytoextraction process?
51. What is the difference between rhizofiltration and phytoextraction?
52. Give another name for the process of phytoextraction.
53. What is the difference between xylem and phloem?
54. Where is xylem and phloem located in plants?
55. What are guard cells and stomata?
56. What is the use of cuticle in leaf?
57. What do you mean by vascular bundle?
58. Which part of leaf regulates the flow of gases in and out of leaves?
59. What is the difference between metabolism and adsorption?
60. What is the process of phytodegradation?
61. Differentiate between phytostabilization and phytodegradation.
62. What is the full form of AQI?
63. How is air classified according to the air quality?
64. Which is more harmful PM2.5 or PM10?
65. Which diseases are caused by increase in PM2.5 level?
66. What is chlorophyll?

67. What is the function of chlorophyll?
68. Define the process of photosynthesis in plants.
69. What are the ingredients required during the process of photosynthesis?
70. Which gas is released during the process of photosynthesis?
71. What do you understand by vertical farming?
72. List the places where vertical farming can be done.
73. What are nanoparticles?
74. Define the term "green synthesis of nanoparticles".
75. Does green synthesis of nanoparticles harm the environment?
76. What do you mean by Nanometer?
77. Why is green synthesis process eco-friendly in nature?
78. Define the process of sedimentation.
79. What are the by-product of this remediation process?
80. What harmful products are released in the environment due to this product?
81. How is dust used as binder?
82. Which types of pollution will our project tend to purify?
83. What are the current methods to purify land pollution?
84. What are the current methods to purify air pollution?
85. What do you mean by sustainability?
86. Are the current purification processes for land pollution sustainable?
87. Are the current purification processes for air pollution sustainable?
88. Which remediation process is useful air pollution?
89. Which remediation process is useful for land pollution?
90. What are the contaminants of land?
91. Why is it difficult to purify PM2.5 contaminants?
92. How dust forms on the surface of the leaves?
93. What are the ways in which we can maximize contact of leaves with the air?
94. What is nano-technology?
95. What are nano composites?
96. How can we use the collected dust from vertical gardening?
97. How do we calculate surface area of a leaf?
98. How will we fabricate nano composites from leaves?
99. Why stir casting process is used to fabricate nano-composites?
100. How will be the water utilized after the process of sedimentation?

23. SIGN LANGUAGE TRANSLATOR

1. What is smart glove?
2. What is the aim of the project?
3. How can this project help the society?
4. What are the applications of this project?
5. What is the need of the project?
6. What is the scope of work of the project?
7. What is meant by implementing a project?
8. How are we implementing this project?
9. How does the model work?
10. What do you mean by revenue generation?
11. What is the cost of the project?
12. What components are used in the project?
13. Who will finance the project?
14. Why do we call the glove smart?
15. How do we know where to connect which component?
16. What is assistive technology?
17. Is AC and fridge assistive technology?
18. Do we have fixed symbols and signs or they can be any symbol?
19. What is sign language?
20. Do people already know signs or they have to learn it?
21. Are there different sign languages or just one?
22. What are resistors?
23. What is the symbol for resistor?
24. What is the difference between resistance and resistor?
25. What is variable resistance?
26. How many resistors are used?
27. What is ohm?
28. What is the specification of the resistors used?
29. Why are resistors separately used?
30. What are capacitors?
31. What is the symbol for capacitor?
32. What is farad?
33. How many capacitors are used?
34. What is the specification of the capacitors used?
35. What is the difference between capacitance and capacitor?
36. What is the symbol for battery?
37. What is the difference between battery and capacitor?
38. What is the role of the capacitor in the project?
39. Where are the resistors and capacitors connected?
40. Why is resistance inversely proportional to current?
41. What is a conductor?
42. What is an insulator?
43. Which materials are classified as conductors and insulators?
44. Why copper wires are used and not any other metal wires?
45. Is resistance same as insulator?
46. What is hardware?
47. What is software?
48. What is input?

49. What is output?
50. What is the input and output of component?
51. What is a sensor?
52. What all kinds of sensors are there?
53. What kinds of sensors are used in the project?
54. What is a flex sensor?
55. Why are flex sensors called flex sensors?
56. How does resistance change in a flex sensor?
57. What are the different possible states of a finger?
58. How does the micro controller differentiate between the states of the finger?
59. How letters are differentiated based on these bend of the fingers?
60. What is a microcontroller?
61. Why is it called micro controller and not just controller?
62. What is the function of a microcontroller?
63. What is the difference between the terms "microcontroller" and "arduino nano"?
64. What is Arduino?
65. How does the microcontroller know what letter to print?
66. How does the microcontroller interpret the hand gesture?
67. How many pins does the arduino nano have?
68. What are all the different pins on the microcontroller used for?
69. What software is used to deploy the code on microcontroller?
70. What is the USB connector port used for?
71. What is programming?
72. What is a programming language?
73. What is a code?
74. What language code is used in the project?
75. What does the code do?
76. Which mobile phone application are we using?
77. Have you made the app or was it already available?
78. What is a bluetooth module?
79. What is the name of the bluetooth device?
80. How do we connect the bluetooth device and the mobile phone?
81. Is the transfer from bluetooth device to mobile application similar to sending of files between two phones via bluetooth?
82. What is meant by transmitting data?
83. What is meant by receiving data?
84. Which device does behave as receiver and which as transmitter?
85. How can both devices be treated as either receiver or transmitter?
86. Why do we use terminal mode on the app?
87. What is the function of the Tx pin?
88. What is the function of the Rx pin?
89. Why is Tx pin connected to Rx and vice versa?
90. What is ground (GND)?
91. What is VCC?
92. How many volts battery is being used in the project?
93. What is the voltage value at ground (GND)?

94. What is soldering?
95. What is the material of the solder?
96. Why did we use a woolen glove and not the plastic doctor gloves?
97. Why are the flex sensors covered?
98. Which wire represents negative connection?
99. Which wire represents positive connection?
100. What is meant by a closed circuit?

24. ECO-FRIENDLY REFRIGERATOR

1. What is refrigeration?
2. What is meant by peltier plate?
3. What is meant by condensation?
4. What is meant by boiling?
5. What is meant by evaporation?
6. Difference between by boiling and evaporation?
7. Explain zeroth law of thermodynamics.
8. Explain first law of thermodynamics.
9. Explain second law of thermodynamics.
10. Explain kelvin-planks statement?
11. Explain clausius statement.
12. Define refrigerants
13. Refrigerants effects on nature. How?
14. Ozone layer depletion and refrigerants – how are they related?
15. What are hydrocarbons?
16. Association of refrigeration process with hydrocarbon?
17. What is working temperature of refrigerator?
18. What are the basic uses of refrigerator?
19. What are the amenities provided by refrigerator?
20. What is earthenware pot?
21. Describe working principle of an earthenware pot?
22. What is anomalous expansion of water?
23. Explain the broader science categories where refrigeration belongs?

24. What is concept of heat transfer?
25. What is the significance of temperature difference?
26. Explain resistance analogy of heat transfer?
27. How is low temperature achieved?
28. What is meant by thermal reservoir?
29. What should be the direction of heat transfer?
30. What do you understand by concept of work transfer?
31. What is the correlation between heat and work transfer?
32. Resistance model of heat transfer and its significance.
33. What is efficiency?
34. What is coefficient of performance?
35. Difference between coefficient of performance and efficiency?
36. What is meant by the carnot cycle?
37. What is the limitation of zeroth law?
38. What is the limitation of first law?
39. What is the limitation of second law?
40. How is feasibility of a process adjudged?
41. What do you meant by Gibb's energy?
42. Explain concept of entropy?
43. What do you mean by semiconductor?
44. Classify semiconductor.
45. Explain p-type semiconductor.
46. Explain n-type semiconductor.
47. What is meant by seeback effect?
48. What is convection process?
49. Why fan are used in model?
50. What is vapour compression cycle?
51. What is vapour absorption cycle?
52. What is dryness fraction?
53. What is humidity?
54. Effect of dehumidification while lowering the temperature.
55. What is domestic refrigeration?
56. What is industrial refrigeration?
57. Difference between refrigeration and air conditioning.
58. What is cost of domestic refrigeration?
59. What are the fixed and running costs?
60. What is the need of radiator?
61. How is the feature provided in the presented model?
62. Which type of clay is used to build a model?
63. What is a source of power for running peltier plates?
64. What is the running cost of refrigerator?
65. How economically viable is the presented model?
66. Which material is used for providing solid structure to the model?
67. What is the lowest temperature achieved by the refrigerator?
68. What is the cop of presented model?
69. What is the charging time through solar panel?
70. Electrical energy consumed by the fans?
71. Electrical energy consumption for circulated water?

72. Which material is used for manufacturing radiator?
73. How does change of clay affect performance of the model?
74. If material is changed how does it affect cop?
75. Minimum rated power source required running the model?
76. Is the model portable?
77. Does the model work at fixed temperature differences or variable temperature differences?
78. Can the temperature be controlled within the model?
79. Is the provision to remotely control the refrigerator?
80. Does the presented model integrate with it?
81. What is the cost analysis of domestic model?
82. What is the cost analysis of presented model?
83. Is the presented model in line with government policies?
84. Does this model contribute to make in India program positively?
85. Can the model is used as an entrepreneurship pitch?
86. How complicated is the fabrication process of the model?
87. Does this contribute to skill India program?
88. Can this idea be suitable for business plan?
89. If incorporated can the idea generate employment?
90. Is the idea competitive enough to garner investments?
91. What is the quality of peltier plate being used?
92. Is the result same if different peltier plates are used?
93. What is thermal conductivity?
94. What is heat transfer coefficient?
95. Can fins be added to the model?
96. What is the rate of heat transfer from the model?
97. What is meant by thermoelectric effect?
98. How much time is required by the model to reach its lowest working temperature?
99. What is lowest temperature reached by the model?
100. Is the model economically feasible?

25. EDIBLE SPOONS

1. What are edible spoons?
2. What is the need for edible spoon?
3. Mention the main constituents of edible spoon?
4. How edible spoons are better than single use plastic?
5. What is an autoclave?
6. What is the ideal working temperature of autoclave?
7. How does an autoclave works?
8. What is sterilization?
9. What is the need for sterilization?
10. How do the spoons react in the environment?
11. Is it decomposable?
12. Are edible spoons able to withstand cold and hot food materials?
13. What is the durability of spoons when placed in hot liquid?
14. What is the durability of spoons when placed in cold liquid?
15. What materials are required for spoon making?
16. Are edible spoons eco-friendly?
17. What is the self-life of edible spoons?
18. How are these edible spoons different from those available in market?
19. What is the baking temperature of oven?
20. Is pre-heating necessary for baking?
21. What is the cost per edible spoon?
22. How does edible spoons taste?
23. Why does different spoons colour varies?
24. Is there any kind of colouring or adulterating agent used in the process of spoon making?
25. Why does the spoon made up of corn flour appear yellow in colour?
26. Why is ajwain added in the making of edible spoons?
27. Is it healthy to eat the spoon as well after finishing the food?
28. Does edible cutlery produce any waste?
29. What are the main minerals made available to humans once they consume it?
30. What are the effects on animal lives after the replacement of plastic with edible spoons?
31. Does the coming of edible spoons affect the economy of our country?
32. What impact does the edible spoons brings on the life of farmers?
33. What is the purpose of edible cutlery?
34. Why is it necessary to begin with edibles instead of single use plastic?
35. How much do edible spoons cost?
36. What is the effect of edible cutlery on the environment?
37. What is an oven?
38. What control measures have to be taken during dough preparation?
39. What is the effect of edible spoons on human health?
40. What is the use of oven in the laboratory?

41. What are the types of oven?
42. Which type of oven is used for the making of edible spoons?
43. What is the principle of hot air oven?
44. Who came up with the ideal of edible cutlery?
45. Are wooden spoons compostable?
46. Is it better to use paper spoons?
47. Is plastic and wooden cutlery better than edible cutlery?
48. What's wrong with wooden spoons?
49. Can you use edible spoons on non-stick pans?
50. What are the commitments with this product?
51. What are examples of single use plastics?
52. What happens if we keep using plastic?
53. Are plastic safe for repeated use?
54. Are plastic spoons bad for the environment?
55. Which state banned plastic first in India?
56. Which country is plastic free?
57. How can we stop single use plastic?
58. Are edible spoons breakable?
59. Are edible spoons completely germs and contamination free?
60. Does a bacterial action occur in the spoons during its making process?
61. Why is it harmful to eat hot meals in a plastic container?
62. Are edible spoons cheaper than plastic spoons?
63. What types of plasticizers are used in the making of plastic?
64. What are the future aspects in field of edible spoons?
65. How are edible spoons helping in managing waste?
66. Does the product promote government's make in India scheme?
67. What is the aim of the product?
68. What is the need of this product?
69. Is the product easily accessible by all group of society?
70. How is it contributed to Healthy India and Clean India?
71. Comparison between edible and wooden spoons?
72. Comparison between edible and plastic spoons?
73. What are the drawbacks of using plastic spoons?
74. What are the drawbacks of using wooden spoons?
75. What are the remarkable features of edible spoons?
76. Mention prime objective of using edible spoons?
77. How does plastic ends up causing devastating climatic changes?
78. Mention effect on animal life in terms of both plastic and edible spoons?
79. Why does an autoclave require such high temperature?
80. Working of an oven in brief?

81. What is the main marketing area of edible spoons?
82. What is the business plan of edible spoons?
83. Can the balance of our ecosystem be restored by using edible spoons?
84. Are the spoons tested with different food products?
85. Mention the protocol of spoon making in brief?
86. What is the cost of the project?
87. How are edible spoons helping to increase cleanliness?
88. How are the edible spoons better than plastic spoons?
89. Which step is the most crucial in manufacturing spoons?
90. What is the ideal working temperature of a hot air oven?
91. Can edible spoons be made as cheap as plastic spoons?
92. What is the average weight of a spoon?
93. Mention the dimensions of a spoon?
94. What are the commitments with this product?
95. Are the spoons capable of holding enough amount of food?
96. Is dough preparation an important step in spoon making?
97. Does edible spoon hold any drawback?
98. Is edible cutlery the best alternative to plastic ware?
99. Are edible spoons the future of cutlery?
100. What is the market entry strategy for the product?

26. MULTI-TOOL HEAD MACHINE

1. What is 3D Printing?
2. What is additive manufacturing?
3. Why stepper motors are used?
4. What is the build volume of the printer?
5. How many types of material it can print?
6. What is coupling?
7. What is the maximum temperature of the Hot end?
8. What is the operating temperature of different material which you used in printer?
9. What is the maximum bed temperature?
10. Why this printing machine is not used in mass production?
11. What is the advantage of combining all the three operations in one machine?
12. What are the Application of 3D printer?
13. What are the Application of laser engraving?
14. What are the Application of CNC?
15. How you build this frame?
16. Why do we not prefer making this frame from plastic material?
17. What are the major electronic components used?
18. What is the overall power consumption of this machine?
19. Why servo motors are not used in this machine?
20. What is the budget of your machine?
21. How many motors are used in this machine?
22. Can we print 3d models in different colors?
23. Which software is used to run the 3d printer?
24. Give me some examples of the Software.
25. How do you connect the machine to your laptop?
26. What is the use of LCD?
27. How will you going to run this machine with the help of LCD?
28. What are the Steps to print a model in machine?
29. How you are converting 3d printer into 2d plotter?
30. Are you using any type of sensors in this machine?
31. What is the specification of laser engraver?
32. Is this laser harmful for your eyes?
33. What is the full form of CNC?
34. What type of stuff your CNC can make?
35. What is the Power output of your CNC drill?
36. How you can enhance the printing quality?
37. Does same software are used for every operations.
38. Which software is used in laser engraving?
39. Which software is used in CNC Controlling?
40. Is the material expensive?
41. How long does it take to print a model?
42. What Are the Differences between 3d Printing And CNC Milling?
43. How much does it cost to 3D Print something?
44. How 3d printing is used in medical field?
45. How durable are the parts?

46. What is this the thickness of the frame?
47. What are the Limitations and drawbacks of your 3d printer?
48. What are the Limitations of this machine?
49. What are the future expectations of your project?
50. How will it affect the automobile industry?
51. How will it affect the Space organizations?
52. How will it affect in medical industry?
53. How much cost it can reduce?
54. What is FDM?
55. What is Rapid Prototyping?
56. What is CAD Modeling?
57. What is still format?
58. Is there any kind of machine available in India?
59. What are the various step of CNC?
60. What are the various step of 2d plotter?
61. What are the various step of laser engraver?
62. Name some 3D printers present in market in India and other Countries.
63. Name some Companies which manufacture this machine in foreign Countries.
64. Which drive mechanism is used to drive the machine?
65. What are the basic problems you faced while making this machine?
66. Is there any solution for Filament run out?
67. What are the different types of 3d printer available in market?
68. What type of operations your CNC can perform?
69. What is the quality of your machine?
70. Which software you have used to make these designs?
71. What do you mean by extrude?
72. How you personally feel that this machine can be useful for students?
73. What are the sources of your raw material?
74. Why you have used Allen Bolt in machine?
75. From where did you get the idea regarding this machine to manufacture?
76. Are there any chances to reduce noise from your machine?
77. How are you going to change the tool heads of the machine?
78. What is the purpose of adding wifi to your machine?
79. What are the modifications you are going to make in this machine?
80. What is the use of drivers?
81. List the the major parts including in this machine.
82. What do you know about programming?
83. What firmware you used in programming?
84. What are the precautionary measures taken while operating the machine?
85. Is there any chance to increase the printing speed?
86. Does print quality decreases when printing speed is increased?

87. Which laser module you have used in this machine?
88. What is the cost of laser module?
89. Which CNC milling tool you have used in this machine?
90. What is the cost of CNC milling?
91. From where did you print all this printed parts of your machine?
92. What is the total cost of printed parts and total weight of material used in your machine?
93. Why 3D Printers are not so popular in India?
94. What is the future scope of your machine?
95. What are the operations your CNC can perform of your machine?
96. Which CNCs are used in Industries?
97. Where did you buy all the raw materials for your machine?
98. Where did you get the design of your machine?
99. What is the difference between firmware and simple programming?
100. How much money needed to make this machine compatible for small and medium scale industries?

27. RIVER WATER TREATMENT

1. How this river water treatment is different from traditional river treatment?
2. What is motor?
3. How we can spread awareness among people?
4. What is C programming?
5. What is the need of nets in this project?
6. What are solar cells?
7. How welding is performed?
8. What is the concentration of the powder used?
9. How this solution is manufactured?
10. IS the solution is good for aquatic animals?
11. How the model is innovative?
12. What is moisture sensor?
13. What are water level indicators?
14. How the water tank gets automatically gets filled?
15. How this project is good for farmers?
16. How the model is a permanent solution for river treatment?
17. From which material the solar panels are made?
18. How PV pumps work?
19. How solar panels are solar cells are different from each other?
20. How sensors are used in less water requirement?
21. Where are the moisture sensor used in the project?
22. How waste management achieved?
23. Where the waste from river will go after treatment?

24. How it is helping to increase cleanliness?
25. Any important DOs & DON'Ts for this treatment plant?
26. Why solar panels are used rather than any other energy source?
27. Why government should go for this project rather than traditional one?
28. What is meant by sensors based monitoring?
29. What is the need to conserve energy?
30. What are the drawbacks of this project?
31. What is the amount of pure water in earth ?
32. What do you mean by power backup?
33. From where you get the idea about this project?
34. Have government previously tried this type of project?
35. Who will take care of the renovation of this project?
36. Who will finance the project?
37. What is Internet of things?
38. What is the work of control room?
39. How this project is cost effective?
40. Why we have made it automated?
41. How the scope of the project improved?
42. How powder will mix to the river?
43. How Make in India is achieved?
44. Which components in the project have used?
45. What do you mean by RENEWABLE ENERGY?
46. What is the main work of solar panel?
47. What is the aim of the project?
48. For what purpose moisture sensor have been used?
49. What is the cost of the project?
50. How the sensors are helping in waste management in the project?
51. How the waste management is achieved?
52. How will slurry be taken off from the river?
53. What is the need of the project?
54. How the themes are achieved?
55. What are sensors?
56. Where water level indicators have been used?
57. What are moisture sensors?
58. How the sensors are helping in water usage minimization?
59. What is the difference between the solar cells and solar panels?
60. What are PV pumps?
61. From which solar panels have been made?
62. What do you mean by permanent solution?
63. How the model is cost affected?
64. What work will management room do?
65. What do you mean by self-sustained model?
66. How this river water treatment is different?
67. What kind of sensors has been used in the project?
68. What is arduino board?
69. What is iot?
70. How the motor is controlled?
71. Who give instruction to the sensor?
72. What do you mean by making smart river treatment?
73. How the model is solar activated?
74. What do you mean by cost affective model?

75. What is hardware?
76. What is software?
77. How the model works?
78. What is the cost of the powder used in the project?
79. How the model is maintenance free?
80. How the model is smart?
81. For what purpose nets have been used?
82. Where this treated water could be used?
83. Is treated can be used for drinking purpose or not?
84. What are the advantages of the project?
85. How the model works?
86. Is the water after treatment will be good for health?
87. What are the different ways for spreading awareness for cleaning water treatment?
88. How the theme of renewable energy is achieved?
89. What kind of components has been used in the project?
90. What is the function of Arduino Microcontroller?
91. What are the waste management techniques of the project?
92. How the waste is used or retained?
93. For what purpose motor would be used?
94. Why waste management is needed?
95. Why river management is needed?
96. How the model is made automated?
97. Why did the need of this type of project?
98. In which areas this can be implemented?
99. How is it contribution to Healthy India and Clean India?
100. What is swacch Bharat abhiyan?

28. PAIN RELIFER MACHINE

1. What are muscle cells?
2. What is a tissue?
3. How many types of muscles tissues are in our body?
4. Which muscle tissue is responsible for the movement of body parts?
5. What are muscles composed of?
6. What is Actin?
7. What is Machine?
8. What is myosin?
9. What are motor proteins?
10. Explain the structure of muscle cells
11. What is pain?
12. Why do we feel pain after exercise?
13. Why old age peoples take more time for healing the pain as compared to kids and adults?
14. What are the ways for reducing pain?
15. How massage reduces pain?
16. How heat helps in reducing the pain?
17. How pain is detected?
18. How many types of pain? Name them and also explain.
19. What is the effect of external pressure on our body?
20. What is blood pressure?
21. What is Arduino?
22. What are sensors?
23. What is a physical quantity?
24. What are microcontrollers?
25. What is an air compressor?
26. Which programming language this can be used for Arduino?
27. What are the components are used in the project?
28. What is air sucker?
29. What is elasticity?
30. What is Young's modulus of elasticity?
31. What is the need of pressure sensor in the project?
32. What is a resistor?
33. What do you mean by resistance?
34. What is atom?
35. What is a machine?
36. What is the need of air sucker in pain reliever machine?
37. What the need of air compressor for PRM (pain reliever machine).
38. Why stretchable belt is used?
39. What are the concepts used making PRM?
40. What will be the optimum pressure for a body part so that cells remain unaffected?
41. What is frequency?
42. What would be the frequency of PRM?
43. How PRM produce the heating effect on skin?
44. What is the cost of project?
45. What is the use of display in project?
46. What is the need of the machine if already have similar machine available in the market?

47. What do you mean by automatic machine? How they are made so?
48. What is a program or software?
49. What is hardware?
50. What is the need of this project?
51. What is the aim of this project?
52. What is the function of Arduino Microcontroller in the project?
53. What is the inter molecular distance?
54. What is the effect of high pressure on a volume of air/fluid?
55. How this project is better than other pain relieving machines?
56. How this project is helpful for the society?
57. How will you find the pressure of air on the post part?
58. What is a diode?
59. What is a capacitor?
60. What is capacitance?
61. What is inductance?
62. What is inductor?
63. What is electric field?
64. What is magnetic field?
65. What is the difference between capacitor and inductor?
66. What is led?
67. How to identify the positive and negative terminal of battery?
68. Why two legs of led is different in size?
69. Which terminal of led is positive?
70. How to identify the positive and negative Terminal of capacitor?
71. What is current?
72. What is the difference between DC and AC current?
73. What is fluid?
74. What is variable resister?
75. What are the units of resistance, capacitance and inductance?
76. What is the unit of magnetic field?
77. What is transformer?
78. What is pressure?
79. What is force?
80. What is time period?
81. What is heat?
82. What is the difference between frequency and time period?
83. Why compression increases the temperature of air?
84. How many types of tissues re in our body?
85. What is the purpose of connective tissues in the body?
86. What is nerves system?
87. Why legs of capacitor are different in size?
88. What is a polar capacitor?
89. Why capacitor blocks the dc to pass to pass through it?
90. What is battery?
91. What is an electric cell?
92. What is the difference between cell and battery?

93. Name the types of electric cells.
94. What is a rechargeable cell?
95. What is cytokine?
96. What is the rate of reaction?
97. What is the central coordination system?
98. What is the effect of external pressure on the muscle cells?
99. What is a transistor?
100. What is the difference between diode and transistor?

29. SMART ACCIDENT PREVENTION AND AUTHENTICATION SECURITY SYSTEM (SAPASS)

1. What Is IOT?
2. What is the full form of iot?
3. Why we need iot?
4. What is the importance of iot?
5. What are the advantages of iot?
6. how iot can help us to solve the future problems?
7. What are features of iot?
8. Give the example of impact of iot on our lives?
9. What are the important components of an iot?
10. What are the main challenges of an iot?
11. What impact will the iot have?
12. How iot can help in health sector?
13. What is ardunio?
14. Which type of ardunio we are using in this project?
15. Who is the developer of arduino?
16. Why we should use arduino?
17. What are the advantages of ardunio?
18. What do you mean by open source hardware?
19. Can I use an arduino board without the arduino software?
20. What is the arduino language?

21. What is ultrasonic sensor?
22. How does an ultrasonic sensor work?
23. When would I use an ultrasonic sensor?
24. How does ultrasonic sensor deal with noise and interference?
25. What environmental conditions affect an ultrasonic sensor?
26. Is ultrasonic sensor slower than photoelectric sensor?
27. What can an ultrasonic sensor detect?
28. Can ultrasonic sensor detect human?
29. What is the range of ultrasonic sensor?
30. Is ultrasonic sensor analog or digital?
31. Who invented ultrasonic sensor?
32. Which sensor is used to measure distance?
33. What is IR sensor?
34. How IR senor works?
35. Can or sensors see through dust and smoke?
36. What is the smallest target IR sensor can measure?
37. How does distance to target affect the IR sensor?
38. Can an IR be overcooled?
39. What is the range of IR sensor?
40. What does an IR sensor do?
41. How do IR sensor detect obstacles?
42. Can IR sensor measure distance?
43. How do you test an infrared sensor?
44. What is cloud computing?
45. What is cloud?
46. What is software?
47. What is hardware?
48. What is microcontroller?
49. What is ide?
50. How cloud computing works?
51. What is the name of our project?
52. What is the full form of SAPASS?
53. Why we required this device?
54. What is the working principle of our project?
55. What are three steps of our project?
56. What is authentication?
57. How authentication module works on our project?
58. How accident detection system works?
59. How post-accident module work?
60. What is GPS module?
61. How GPS module works?
62. What is GSM?
63. How GSM module works?
64. Why we used GSM module?
65. What is imei in GSM technology?
66. How our project works explain?
67. What is the hardware used in authentication system?
68. What is the software used in authentication system?
69. How our post-accident system works?
70. What are the features of our project?
71. How our system can implement in future?
72. How our system can reduce the accidents?
73. What technology is used in our project?
74. Why we used us sensor in our project?

75. Why we use biometrics in authentication system?
76. What is our rto server?
77. How the digital document can reduce the paper work?
78. How this module can help to find the stolen vehicle?
79. How our modules protect vehicles?
80. Working of ultrasonic sensor work on this project?
81. What is red zone?
82. What is green zone?
83. What is warning zone?
84. What is light red zone?
85. Explain the working of red zone and its effect?
86. Explain the working of green zone and its effect?
87. Explain the working of warning zone and its effect?
88. How servo motor will work in our project?
89. What is servo motor?
90. What is crash sensor?
91. How our post-accident system will work after the accident?
92. How our whole system will work?
93. What application of our project?
94. What are future development goal of our project?
95. How it can be accessible for all class of society?
96. How our project is environment friendly?
97. How our device is better than options available in market?
98. How is it user friendly?
99. What is the energy consumption required for our device?
100. How is it different from other?

30. WASHING WATER PURIFIER SYSTEM

1. What is your project?
2. How does it work?
3. How many substances have you used in it?
4. What is principal of your project?
5. What does the form work?
6. What does pieces of bricks work?
7. What does gravel work?
8. What does wood powder work?
9. What does send work?
10. What does coke powder work?
11. How much it cost?
12. What is marketing plan?
13. What is problem face in human?
14. What is process?
15. Where can it be used?
16. Have you used electric goods?
17. What electric items are used in it?
18. What is pump work?
19. Why using water pump?
20. How is used water pump?
21. What is work in solar panel?
22. How is used solar panel?
23. How many watts is your Saur panel?
24. What is battery?
25. How is used battery?
26. Why have you used pipe
27. How many amperes & volte's in your battery?
28. Why using Solar panel?
29. Why using battery?
30. What is F M?
31. Why have you used tank?
32. How many tanks used it?
33. What is P-N junction?
34. What is first low?
35. How many liters are your tanks?
36. How much water does it clean?
37. How much does it purify water?
38. How many percent of water clean?
39. How much water can be use?
40. What is density of water?
41. What is energy conservation low?
42. What is weight of your project?
43. What is length of your project?
44. What is weight of your project?
45. Why using tanks?
46. What is area of your project?
47. What is output of water?
48. What is clean in water?
49. How many time here purification of water?
50. How many liters in 1 hour?
51. What are the mainly which area is used?
52. What is the aim of this Project?
53. What are the benefits of this project?
54. What is the use of this project?
55. Why used tire tanks in this project have used?
56. What how the advantage of this project?
57. What how the disadvantage of this project?
58. They have no external source is also perform this project?
59. What are the applications of this project?

60. Have you used PVC pipe?
61. Have you used plumbing items?
62. Why have used PVC pipe?
63 Which water dies it use?
64. How much does it clean the water?
65. Does it remove hardness from water?
66. How much present water does it re-use?
67. What impurities does it remove from water?
68. What water dies it use?
69. Does it remove gmail from water?
70. Does it change the color of water?
71. Con it work for long time?
72. How long can it work?
73. What impurities can it remove from water?
74. Is it very expressive?
75. Which tanks have you used in it?
76. Where can we use its water?
77. Can we use this water for drinking?
78. Can we use this water for other purpose?
79. Can we use this water only in washing vehicles?
80. How many hours can it work continuously?
81. How to easily move from one place to another?
82. What is principal of water pump?
83. What is commercial cost?
84. What is commercial plan?
85. Is a compact shape & size?
86. Why using battery, Solar panel?
87. What is purifier?
88. What is specification of your project?
89. What is principal of Solar panel?
90. What current does your project work on?
91. Why have you used DC Current in it?
92. What current does your pump operate on?
93. How much current does your Solar panel give?
94. Does your project use more current?
95. Can your project work without current?
96. Which water do you use for purification?
97. Does your project use west water?
98. Can it purify water at a greater amount?
99. What is the purpose of this project?
100. What's new in your project?

31. GREEN POWERED AC SYSTEM

1. What do you mean by Green Powered AC-system?
2. What is AC-System?
3. What is Refrigeration System?
4. What are the types of Refrigeration system?
5. What is vapor compression Refrigeration system?
6. What is vapor absorption refrigeration system?
7. What are the difference between VCRS and VARS?
8. What is System?
9. In VCRS and VARS which one is better and why?
10. What is vapor?
11. What do you understand by compression?
12. What are the components of VCRS system?
13. What is solar panel and why it is use?
14. By which material solar panel manufacture?
15. Give the specification of solar panel which you use in this project?
16. What is DC motor?
17. Give the specification DC-motor which you use in this project?
18. How DC-motor difference from AC motor?
19. What is the function of compressor?
20. Which arrangement of compressor used to compress liquid?
21. What is the function of condenser?
22. What is the function of evaporator?
23. How condenser differs from evaporator?
24. What is the function of fin?
25. Why copper tube is used in this project?
26. What is thermal conductivity?
27. What is thermal conductivity of copper?
28. What is unit of thermal conduction?
29. What is the unit refrigeration?
30. What do you understand by TR (one tone of refrigeration)?
31. What is the value of one TR?
32. Giver the specification of compressor?
33. What is Expansion valve or capillary tube?
34. What is the function of capillary tube?
35. Define pressure?
36. What is the value of ambient temperature?
37. What is flywheel?
38. Why are you using flywheel in your project?
39. What is the weight of flywheel in yout project?
40. What is the function of pedestal bearing?
41. Why are you using pedestal bearing in your project?
42. What is refrigerant?
43. Which type of refrigerant you have used in your project?
44. Why are you using R134a in your system?
45. How you can say R134a is an eco-friendly refrigerant?
46. What is the chemical name and chemical formula of R134a?
47. Define COP?
48. How did you calculate COP of your system?

49. What is the COP range of VCRS?
50. What is the COP of your model?
51. What is the function of filter or drier?
52. Why filter consist silica liquid?
53. What is the minimum temperature of evaporator entry as well as exit?
54. What is the maximum temperature of condenser entry as well as exit?
55. What is the freezing point of R134a?
56. What is the boiling point of R134a?
57. What is the pressure of R134a in your system?
58. How can you find COP of Green Powered AC System by the help of temperature?
59. What is the application of your project?
60. Which type of compressor used in your model?
61. Which type of condenser used in your model?
62. Which type of evaporator used in your model?
63. Is there any change of pressure in condenser or evaporator?
64. What is material of fin in your model?
65. Define enthalpy?
66. Define entropy?
67. Which type thermodynamic process done in capillary tube?
68. What is the second law of thermodynamics?
69. What is the effect on cooling when increase the size of condenser or evaporator?
70. Can you utilize your model as heat pump?
71. What is the COP of heat pump?
72. What is the COP relationship between Refrigerator and Heat Pump?
73. Why are using geared DC motor to run compressor?
74. What is difference between COP and Efficiency?
75. Why COP of heap pump is always greater than COP of refrigerator?
76. What is the size of your project?
77. Why are you using DC motor controller in your project?
78. In which principle solar panel works?
79. Tell something about PN junction?
80. What is the value of ambient pressure?
81. Which type belt using in your model for power transmission from motor to compressor?
82. What will the impact of cooling effect when increase the length of capillary tube?
83. Water is also an eco-friendly as well as economical refrigerant so, why did you not use water as a refrigerant in your system?
84. How can you utilize your model in future aspects?
85. Can you differentiate AC and DC current?
86. Define heat and temperature?
87. What Will the maximum voltage cover your solar panel?
88. Can you differentiate Voltage and current?
89. What is the effect of R134a on O3 layer?
90. What is the function of silica liquid in filter or drier?

91. What is the overall length of copper cycle in your project?
92. What is the effect on mass flow rate, when refrigerant flows on cycle?
93. What is the function of flash chamber?
94. How can you find the leakage in copper tube?
95. What is throttling process?
96. What are the applications of your model in future?
97. In which place flash chamber fitted and why?
98. Why capillary tube has very small diameter?
99. Why exhaust port of compressor is always smaller than inlet port?
100. What is the overall cost of your project?