



In Partnership with

SYNOPSIS[®]



100 Times Curious – Collection of Questions

Released on the occasion of

Science & Engineering Fair of Selected Projects

at

Shikshakara Sadana, K G Road, Bangalore

***Organised by* Agastya International Foundation**

In support with Synopsis

CONTENTS

1. FOREWORD
2. LIST OF PROJECTS EXHIBITED IN THE FAIR
3. QUESTIONS



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 7 years old in Bangalore, completed 5 years in Hyderabad and 3 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 TITLE	COLLEGE NAME/SCHOOL NAME
1	AS-B-U-01	FREE BREEZE HYGIENIC AIRCOOLER	HIRASUGAR INSTITUTE OF TECHNOLOGY, NIDASOSHI, BELGAUM
			GOVT KANNADA BOYS HIGH SCHOOL, NIDASOSHI
2	AS-B-WM-02	NATURAL COMPOSITE INSULATORS	HIRASUGAR INSTITUTE OF TECHNOLOGY, NIDASOSHI, BELGAUM
			MOORAJI DESAI RESIDENTIONAL SCHOOL, NIDASOSHI
3	AS-B-WM-03	DIGESTBIN FOR KITCHEN WASTE	SIR M . VISVESVARAYA INSTITUTE OF TECHNOLOGY, BANGALORE
			SRI JAGADHGURU PANDITHARADHYA PROWDASHALE
4	AS-B-WM-04	SMART AUTOMATED WASTE SEGREGATING DUSTBIN	SRI VENKATESHWARA COLLEGE OF ENGINEERING, BANGALORE
			SRI JAGADGURU PANDITHARADHYA SCHOOL, HUNASAMARANA HALLI
5	AS-B-FIN-05	SMART BANK LOCKER SYSTEM	MANGALORE INSTITUTE OF TECHNOLOGY AND ENGINEERING, MANGALORE
			GOVT HIGH SCHOOL, KUKKEHALLI
6	AS-B-TK&TS-06	FLEXIBRICKS FOR GREEN BUILDING	ACHARYA INSTITUTE OF TECHNOLOGY, BANGALORE
			GOVT HIGH SCHOOL, CHIKKABANAVARA
7	AS-B-TK&TS-07	DETECTION AND REMOVAL OF PHOSPHATE USING MC AND WIRELESS ACCESSIBLE SENSOR	CHANNABASAVESHWARA INSTITUTE OF TECHNOLOGY, TUMKUR
			GOVT HIGH SCHOOL KYTASANDRA, TUMKUR
8	AS-B-N&F-08	ARECA SPRAY SYSTEM BY DRONE	SHRI DHARMASTHALA MANJUNATHESHWARA INSTITUTE OF TECHNOLOGY, UJJIRE, D.K
			SDM HIGH SCHOOL, UJJIRE
9	AS-B-G-09	EMERGENCY FIRST-AID DRONE	BGS INSTITUTE OF TECHNOLOGY, MANDYA
			B.G.S RURAL ENGLISH MEDIUM HIGH SCHOOL, ADHICHUNCHANAGIRI
10	AS-B-G-10	TREE CLIMBING CYCLE	HIRASUGAR INSTITUTE OF TECHNOLOGY, NIDASOSHI, BELGAUM
			MOORAJI DESAI RESIDENTIONAL SCHOOL, NIDASOSHI
11	AS-B-N&F-11	OMEGA LUTEIN ENRICHED NUTRIEGG	SIR M . VISVESVARAYA INSTITUTE OF TECHNOLOGY, BANGALORE
			SRI JAGADHGURU PANDITHARADHYA HIGH SCHOOL
12	AS-B-G-12	ULTRASONIC NAVIGATION PROJECT	PROUDADEVARAYA INSTITUTE OF TECHNOLOGY, HOSPET, BELLARY



			TUNGABADRA HIGH SCHOOL HULIGI
13	AS-B-G-13	FOG CAMERA VISSION IN VEHICLES	SHRI DHARMASTHALA MANJUNATHESHWARA COLLEGE OF ENGINEERING AND TECHNOLOGY, DHARWAD GHS NARENDRA
14	AS-B-G-14	AUTOMATICALLY OPERATED IOT BASED WEARABLE SAFTEY DEVICE FOR GIRL AND WOMEN	SRI VENKATESHWARA COLLEGE OF ENGINEERING, BANGALORE SRI JAGADGURU PANDITHARADHYA HIGH SCHOLL, HUNASAMARANAHALI
15	AS-B-G-15	LOCOMOTIVE HORNING	VIJAYA VITTALA INSTITUTE OF TECHNOLOGY, BANGALORE GHS JAKKURU
16	AS-B-G-16	SMART BOOK IN RURAL EDUCATION	PESIT BANGALORE SOUTH CAMPUS, BANGALORE SRI A TIMMAIAH REDDY GOVT HIGH SCHOOL
17	AS-B-G-17	NON-INVASIVE GLUCOMETER USING SALIVA	JAIN COLLEGE OF ENGINEERING, BELAGAVI SANGOLLI RAYANNA MEMORIAL RESIDENTIAL SCHOOL, NANDGAD
18	AS-B-G-18	BI MODE SPY COPTER	SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY, TUMKUR SARVODAYA BOYS SCHOOL
19	AS-B-G-19	FABRICTN OF OIL SKIMMING MACHINE	AKSHAYA INSTITUTE OF TECHNOLOGY, TUMKUR MARUTHI VIDYA KENDRA, BELAGUMBA, TUMKUR
20	AS-B-TK&TS-20	REINFORCED INTERLOCKING MUD BRICKS	SHRI DHARMASTHALA MANJUNATHESHWARA INSTITUTE OF TECHNOLOGY, UJJIRE, D.K SDM ENGLISH MEDIUM SCHOOL, UJIRE
21	AS-B-TK&TS-21	ADIHA- PARTNER OF RUBBER FARME	SHRI DHARMASTHALA MANJUNATHESHWARA INSTITUTE OF TECHNOLOGY, UJJIRE, D.K SDM HIGH SCHOOL, UJIRE
22	AS-B-U-22	ELECTROSTATIC PRECIPITATION	AGM RURAL COLLEGE OF ENGINEERING & TECHNOLOGY, DHARWAD LION'S SCHOOL, HAVERI J M J SCHOOL, SHIGGAON
23	AS-B-U-23	REGENERATIVE BRAKING SYSTEM	BEARYS INSTITUTE OF TECHNOLOGY, MANGALORE BEARYS PUBLIC SCHOOL, MANGALORE
24	AS-B-U-24	NANO ENGINEERED WATER	DAYANANDA SAGAR COLLEGE OF ENGINEERING, BANGALORE BALDWIN GIRLS'S HIGH SCHOOL



25	AS-B-U-26	WIRELESS SENSING NETWORK MONITORING FOR WATER POLLUTION IN LAKES AND RIVERS	MANGALORE INSTITUTE OF TECHNOLOGY AND ENGINEERING,MANGALORE
			LITTLE FLOWER ENGLISH MEDIUM SCHOOL, RANGANPALKE
26	AS-B-U-27	HYBRID ADSORPTION COOLING	NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY,DEVANAHALLI.
			NAGARJUNA VIDHYANIKETAN
27	AS-B-U-28	WIND LENS	P E S COLLEGE OF ENGINEERING,MANDYA
			SANTHOM PUBLIC SCHOOL, MANDYA
			ABHINAVA BHARATHI VIDYA KENDRA, MANDYA
28	AS-B-U-29	ADVANCE CONTROL INDUCTION MOTOR	P E S COLLEGE OF ENGINEERING, MANDYA
			ROSSELLO'S CENTRAL SCHOOL
			VISHWA PRAGNA HIGH SCHOOL
29	AS-B-U-30	DRIVER EYE	SAHRDAYA COLLEGE OF ENGINEERING AND TECHNOLOGY, KERALA
			ST.SEBASTIAN H.S, CHENGAL
30	AS-B-U-31	MOVABLE ROAD DIVIDER FOR ORGANIZED VEHICULAR TRAFFIC CONTROL WITH MONITORING OVER INTERNET OF THINGS (IOT)	SCHOOL OF ENGINEERING AND TECHNOLOGY, JAIN UNIVERSITY, RAMANAGAR
			RYAN INTERNATIONAL SCHOOL, BANNERUGATTA
			CARMEL HIGH SCHOOL BASAVESWARANAGAR
31	AS-B-WM-32	MICROBIAL FUEL CELLS	AKSHAYA INSTITUTE OF TECHNOLOGY, TUMKUR
			MARUTHI VIDYAKENDRA
32	AS-B-WM-33	USE OF WASTE RUBBER AS A AGGREGATES	AMRUTA INSTITUTE OF ENGINEERING AND MANAGEMENT SCIENCES, BIDADI, RAMANAGARA
			BLOOSOM INTERNATIONAL SCHOOL, RAMANAGARA
33	AS-B-WM-34	BIO WASTE INTO ACTIVATED CHARCOAL	BASAVESHWAR ENGINEERING COLLEGE (AUTONOMOUS) BAGALKOT
			VIVEKANANDA GOVT. SCHOOL
34	AS-B-TK&TS-35	PLASTIC BOOTLE BRICKS	SHRI JAGADGURU BALAGANGADHARANATHA SWAMIJI INSTITUTE OF TECHNOLOGY,KENGERI,BANGALORE
			SHREE JNANKSHI VIDYANIKETAN PUBLIC SCHOOL
35	AS-B-SP-36	BOREWELL-CHILD RESCUE ROBOT	SRI SAI RAM COLLEGE OF ENGINEERING,ANEKAL,BANGALORE
			SARASWATHI VIDYA MANDIR



36	AS-B-F&N-37	SEMI-AUTOMATED HONEY EXTRACTOR	CANARA ENGINEERING COLLEGE, BHANTAWAL, D.K
			CANARA HIGH SCHOOL, URVA
37	AS-B-G-38	MAGLEV TRAIN AND AUTOMATION	BEARYS INSTITUTE OF TECHNOLOGY, MANGALORE
			BEARYS PUBLIC SCHOOL, MANGLORE
38	AS-B-G-39	DESIGN OF EMBROIDERY STAND	BMS COLLEGE OF ENGINEERING, BANGALORE
			SHRI JAGADGURU BALAGANGADHARANATHA SWAMIJI INSTITUTE OF TECHNOLOGY, KENGERI
			SWARGARANI SCHOOL AND PU COLLEGE
39	AS-B-G-40	ADVANCED CANE FOR BLIND	GIRIJABAI SAIL INSTITUTE OF TECHNOLOGY. MAJALI. KARWAR, UTTARAKANNADA
			BP PUBLIC SCHOOL
40	AS-B-G-41	RAILWAY ACCIDENT CONTROL BY RADAR/PHOTO ELECTRIC TECHNOLOGIES	JAWAHARLAL NEHRU NATIONAL COLLEGE OF ENGINEERING, SHIMOGA
			NATIONAL PUBLIC SCHOOL, SHIVAMOGGA
41	AS-B-G-42	SMART SPECS FOR DISABLED	P E S COLLEGE OF ENGINEERING, MANDYA
			HUDA PUBLIC SCHOOL, MYSORE
42	AS-B-G-43	STRENGTH OF LIQUID DIELECTRICS	P E S COLLEGE OF ENGINEERING, MANDYA
			CARMAL CONVENT GIRLS HIGH SCHOOL, MANDYA
43	AS-B-G-44	LEADING STICK	SAMBHRAM INSTITUTE OF TECHNOLOGY, BANGALORE
			ORCHIDS THE INTERNATIONAL SCHOOL, JALAHALLI
44	AS-B-G-45	SMART FUEL GAUGE	VIDYA VIKAS INSTITUTE OF ENGINEERING & TECHNOLOGY, MYSORE
			St. THOMAS CENTRAL SCHOOL
			VIDYAVARDHAKA BM SRI EDUCATIONAL INSTITUTION
45	AS-B-G-46	DIGITAL BRAILLE AUDIO LEARNING DEVICE	VIDYA VIKAS INSTITUTE OF ENGINEERING & TECHNOLOGY, MYSORE
			SUPREME PUBLIC SCHOOL, MYSURU



FREE BREEZE HYGIENIC AIRCOOLER

1. What is breeze?
2. Why we call free breeze only?
3. What is mean by hygienic?
4. What is air cooler?
5. What is the principle of air cooler?
6. What are the advantages of now available air cooler?
7. What are the advantages of free breeze hygienic air cooler?
8. What are the disadvantages of now available air cooler?
9. What are the types of air cooler?
10. What benefits will be produced by the project?
11. What is new innovation component in the project?
12. How much temperature is maintained by air cooler?
13. What is evaporation?
14. Why this project is called eco- friendly?
15. To which target population of users?
16. What kind of innovation is this?
17. Can air cooler cool the room?
18. Can air cooler is act as a heater?
19. What is the difference between fan and air cooler?
20. What is the difference between air cooler and heater?
21. How much power consumed by the air cooler?
22. Why we use holy medicines in this cooler?
23. What is the scientific name of tulasi?
24. What is the scientific name of Davana?
25. What are the features of tulasi?
26. What are the features of Davana?
27. Where we use holy medicines?
28. How many types of plants in Davana?
29. Which is the most important property of the Davana?
30. What are the disadvantages of Davana?
31. What is the taste of Davana?
32. What is the best use of Davana?
33. Where Davana is mostly grown?
34. Why we use UV tubes?
35. What is the wavelength of UV tubes?
36. What is the meaning of ultra violet?
37. Who discovered UV tubes?
38. When UV tubes are discovered?
39. What are the properties of UV tubes?
40. What are the sub types of UV tubes?
41. Why we use copper wire?
42. Why copper is called good conductor?
43. What are the advantages of copper wire?
44. Why we use clay pot?
45. How much temperature is maintained by the pot?
46. What is microcontroller?
47. Which IC is used in microcontroller?
48. Why we use PIC16F873 IC?
49. What are the features of PIC16F873 IC?
50. Which language is used in microcontroller?
51. Why 8051 microcontrollers is not used in this project?
52. What is pin configuration of LM016L (LCD)?
53. What are the importance of LED?
54. Why we use LED?
55. What are the benefits of LED?
56. What is MOSFET?
57. What is the abbreviation of MOSFET?
58. What are the properties of MOSFET?



59. Why we use MOSFET?
60. What are the terminals of MOSFET?
61. Why MOSFET is called voltage control device?
62. What are the advantages of MOSFET?
63. What are the disadvantages of MOSFET?
64. Why gate and source terminals are always short in MOSFET?
65. What is amplifier?
66. Why we use amplifier?
67. What are the types of amplifier?
68. What is pin configuration of amplifier?
69. What is solar panel?
70. What are the types of solar panels?
71. Why we use solar panel?
72. How solar panel works?
73. What are the applications of solar panel?
74. How much energy is produced by solar panel per day?
75. Can you use artificial light for solar panel?
76. Do solar panel works in the night?
77. Do solar panel works in the shade?
78. What is temperature sensor?
79. What is the principle of temperature sensor?
80. What is water sensor?
81. Why we use water sensor?
82. What is resistor?
83. What is capacitor?
84. What is switch?
85. What is voltage?
86. What is current?
87. What is SP switch?
88. What are the types of switches?
89. What is transformer?
90. What is inverter?
91. What are the types of transformers?
92. What is step up transformer?
93. What is step down transformer?
94. What are the properties of capacitors?
95. What are the properties of resistor?
96. What is radiator?
97. How clay pots are to be maintained?
98. What is the main work of pot?
99. How air cooler is maintained in deserts?
100. What is difference between microcontroller and microprocessor?



NATURAL COMPOSITE INSULATORS

1. What is the aim of this project?
2. What is the name of the project title?
3. What is the thermal insulation?
4. What are the important properties of thermal insulation?
5. What are the objectives of thermal insulators?
6. What is the composite material?
7. What is the composition of the composites?
8. What are the properties of the composite materials?
9. What are the properties of reinforcement?
10. What are polymers?
11. What are the types of composite material?
12. Which type of composite material is used in natural composite insulators used?
13. Difference between synthetic composites and natural composites?
14. What is the hemp?
15. What are the characteristics of hemp?
16. What is deccan hemp?
17. What is another name of deccan hemp?
18. What are directional properties in composites?
19. What is the use of dutepalm wood?
20. Define particle board?
21. What are the characteristics of particle board?
22. What is the major disadvantage of particle board?
23. Define specific heat
24. Define specific heat capacity.
25. Define density?
26. What is Thermal Conductivity value?
27. What are the advantages of this project?
28. What are the disadvantages of this project?
29. What are the applications of this project?
30. What are the objectives of the project?
31. Which material is used in this project?
32. What is the role of deccan hemp in composite?
33. What are the properties of deccan hemp?
34. What is the meaning of the word kenaf?
35. Why is the purpose of ammonia in composites?
36. What is the duration of ammonia soaking of reinforcement?
37. Why using white Portland cement?
38. What is the use of standard epoxy resin in this project?
39. What is the application of epoxy resin?
40. What are the characteristics of resin?
41. How fibres are extracted?
42. What is methodology of project?
43. What are the steps involved in methodology?
44. What are the functions of fibre reinforcement?
45. Which fibres are used for some high temperature application?
46. Differentiate between thermo plastics and thermo sets?
47. Where thermal insulation materials can be used?
48. Which component is mixed with resin in thermal insulation?
49. What is life of thermal insulators?
50. How the thermal insulation takes place?
51. Classify thermal insulators?
52. What are the advantages of thermal insulation?
53. What are disadvantages of the thermal insulation?
54. What are applications of thermal insulation?



55. What are the properties of laminated reinforce composites?
56. What is the function of white cement in composite?
57. What are properties of ceramic matrix?
58. What are the examples of ceramic matrix?
59. What are the properties of metal reinforce composite?
60. What are metrics and reinforcement?
61. Which materials consist of thermal insulators?
62. What is the use of testing of composites?
63. What tests are done to check this project product?
64. What is bending stress?
65. What is compression stress?
66. What are the results of conducted tests?
67. What is stress?
68. What is strain?
69. What is static load?
70. What is tensile load?
71. What is torsion?
72. What is ductility?
73. What is the formula of compressive strength?
74. How compression test is conducted?
75. What is along the grain?
76. What is across the grain?
77. What is the unit of compressive strength?
78. What is the module of elasticity?
79. What is the formula of elasticity?
80. What is lee's method?
81. What are the observations of lee's method?
82. What is formula of thermal conductivity?
83. What is the conclusion of this project?
84. What is formed when nitrogen, hydrogen and NH₃ are mixed?
85. What is elastic limit?
86. What is the boiling point of ammonia?
87. What is another name epoxy resin?
88. Except cement and epoxy resin what is another material used in the mixing process?
89. What is the ratio of water and liquid ammonia in which the extracted fibres are soaked?
90. What are characteristics of composite materials?
91. What are natural composites?
92. What are the applications of composites?
93. What does layer mean in laminated composite?
94. What are the common defects seen when reinforced materials are used?
95. What are the types of fiber reinforced composite materials?
96. Write examples for fiber reinforcement?
97. Deccan hamp belongs to which family?
98. Which another fiber show same properties like deccan hamp?
99. Deccan hemp is binnial or annual plant?
100. What is density?



DIGESTBIN FOR KITCHEN WASTE

1. What is kitchen waste?
2. What is biodigestor?
3. What is compost?
4. What are microbes?
5. What is decomposition?
6. What is organic matter?
7. What is aerobic condition?
8. What is anaerobic condition?
9. What are sensors?
10. What are collecting plates?
11. What is shredder?
12. What is pH?
13. What is fertiliser?
14. What is automation
15. What is moisture content?
16. What is pH control?
17. What are optimum conditions?
18. What is manure?
19. What is municipal solid waste?
20. What is waste management?
21. What is urbanisation?
22. What are the essential conditions required for microbial digestion?
23. What is microbial digestion?
24. What is the aim of the project?
25. Why do we use shredder?
26. What is the role of temperature and pH sensor?
27. What is the time required for normal decomposition?
28. What is the time required for decomposition in the designed digester?
29. How is the Digest Bin helping the society?
30. What is the consequence of urbanisation?
31. What is the consequence of exceeding waste?
32. What kind of waste can we use in digest bin?
33. Will it give a bad odour?
34. Will it make a mess in the kitchen?
35. Will the microbes used for composting infect us?
36. Will the digest bin consume a lot of energy?
37. Is it easy to dispose the digested waste?
38. What can the compost be used for?
39. How do we fabricate the digest bin?
40. What is the efficiency of the digest bin?
41. What is the cost of the digest bin?
42. Does the cost substantiate the efficiency?
43. How will you market the digest bin?
44. What are the dimensions of the digest bin?
45. If the digest bin takes 2-3 weeks for decomposing, what do I do with everyday waste?
46. What is the capacity of the digest bin?
47. What are the microbes used?
48. What is the carbon nitrogen ratio required for composting?
49. What is the temperature range required for normal composting?
50. What is the temperature range for composting in digest bin?
51. What is the pH range for normal composting?
52. What is the pH range for composting in digest bin?
53. What is the final product of the digest bin?



54. What is the goal of constructing the digest bin?
55. What is the material used for constructing the digest bin?
56. What is our innovation in this project?
57. What is the % of moisture we maintain?
58. What is the mechanism involved by microbes to degrade the waste?
59. Why are we providing aerobic conditions?
60. What happens in anaerobic conditions?
61. What are organic and inorganic wastes?
62. What are biodegradable and non-biodegradable waste?
63. What are the types of wastes generated?
64. What sectors can make use of the digest bin?
65. What is the difference in plant growth using compost and without compost?
66. What is the uniqueness of your digester?
67. What is the average amount of waste produced per day?
68. Is the waste manually sorted out?
69. What form waste is generated by the digester?
70. What percentage of the waste will get degraded?
71. What are the different uses of the product from the digester?
72. What are the types waste that can be loaded?
73. What are the types of waste that should not be used?
74. How can this be implemented in large scale?
75. How can this be modified for hotel kitchens?
76. Can this be made automatic?
77. How often the digester has to be serviced?
78. How many trials have been done?
79. How often it has to be monitored?
80. Does the product have to be mixed with mud to use further?
81. How long the optimum conditions are required for degradation?
82. What are the types microbes present in the kitchen waste?
83. How many times should the waste be shredded?
84. Will the product be dry or contains moisture?
85. Can this be run on solar energy?
86. How long did it take to build this?
87. Why only kitchen waste was chosen?
88. How can this solve the waste management problem?
89. What is the percentage of kitchen waste out of total waste generated by city?
90. What is the reaction that occurs within the digester?
91. What is the factor that decreases that rate of degradation?
92. How long will the same amount of waste take to degrade on landfills?
93. Which species of microbes involve in degradation?
94. How often the manual shuffling has to be done?
95. How can the climatic changes impact on the rate of degradation?
96. What happens when the waste is too acidic?
97. What are the uses of the waste water as effluent?
98. Can the effluent be treated further in the same biodigester?
99. Could the waste be used as a fertilizer?
100. Is some part of the waste used for recycling?



SMART AUTOMATED WASTE SEGREGATING DUSTBIN

1. By how much percentage is the total global waste increasing every year?
2. What are the major problems encountered for proper waste management?
3. How does AWS help in overcoming these problems?
4. What are the contributions of smart dustbin in waste management?
5. Explain in brief the working of AWS?
6. Explain in brief the working of smart dustbin?
7. On which principle does the smart dustbin work?
8. What is IOT? Explain in brief?
9. What is the role played by sensors in smart dustbin?
10. What are the different stages of waste segregation implemented in AWS?
11. What are the economic uses of waste?
12. Why should waste be segregated at the source itself?
13. What is the main function of infrared proximity sensor module?
14. What is the role played by inductance coil?
15. If the object dropped is metallic, what are the changes observed in AWS?
16. What is the role played by capacitance coil?
17. Why are dc geared motors used in AWS?
18. How is AWS initialized?
19. How is the average of all base count values set?
20. How are eddy currents induced?
21. What factors affect eddy currents?
22. How is magnetic field generated?
23. What is the role played by magnetic field?
24. What are the functions of LDC100?
25. Which are the different modules present in AWS?
26. Explain metal detection system in AWS?
27. Which method determines a count value for each pair of capacitive plates?
28. Describe the structure of capacitive sensing module?
29. How are copper plates placed in capacitive sensing module?
30. Why copper plates are placed so in capacitive sensing module?
31. What happens to the sensitivity of the copper plate as its area increases?
32. Why are objects of smaller size determined more accurately than that of large size objects?
33. What is the principle of working of pin oscillator?
34. How many timers are used in capacitive sensing module?
35. What are the functions of timers?
36. Where is the input of Schmitt trigger connected to?
37. Where is the output of Schmitt trigger connected to?
38. How is capacitor charged and discharged?
39. What happens when the Schmitt trigger toggles?
40. What is the clock input of second timer?
41. What is the count value of second timer?
42. How is dry waste and wet waste identified?
43. What is the property used for waste segregation?
44. Explain dielectric constant?
45. What is the dielectric constant of air?
46. What happens to capacitance of the plates, when an dielectric medium is introduced between them?



47. If the change in capacitive count is greater than the threshold, what kind of waste is it?
48. Which has higher dielectric constant wet or dry waste? Why?
49. Why are dc motors used instead of stepper motor?
50. Explain segregation module?
51. What is the role of dc motors in case of segregation module?
52. Where is container placed in segregation module?
53. On what basis is the direction of container decided in segregation module?
54. How important is segregation module in AWS?
55. What is PWM?
56. How is PWM wave generated? Mention few of its applications?
57. How do you avoid overshooting of container?
58. What is the role played by PWM?
59. What causes overshooting of the container?
60. Which component in AWS is responsible for PWM generation?
61. Explain the functions of motors in case of segregation module?
62. How does the dc motor lower the collapsible flap?
63. How is waste disposed in segregation module?
64. On what basis is the direction of rotation for next iteration determined?
65. Draw the flowchart for the working of AWS?
66. Explain the flowchart in detail?
67. Mention few limitations of AWS?
68. Draw the diagram of AWS? Label its parts?
69. Explain the interfacing of LDC1000 with microcontroller?
70. Define the term proximity count value?
71. Mention the components used in smart dustbin?
72. Explain in brief the working of smart dustbin?
73. How does smart dustbin help in pollution control?
74. Why has garbage become a major concern now a days?
75. How does the lid of dustbin work whenever waste is to be disposed?
76. What happens when the dustbin is full?
77. How is the level of weight detected?
78. How to identify which dustbin is full?
79. What happens when the dustbin is full?
80. How is smart dustbin better than normal dustbin?
81. Which chemical can be used in order to prevent the decaying smell in dustbin?
82. Which are the tools used in designing of smart dustbin?
83. Explain how smart dustbin is manufactured?
84. What are hardware components used in the manufacturing of smart dustbin?
85. What monitors the status of the bin?
86. What triggers the level sensor?
87. Draw the system architecture of smart dustbin?
88. How does the smart dustbin help in reducing the corruption in overall waste management?
89. What is the role played by solar panels in smart dustbin?
90. State the applications of smart dustbin?
91. Where would you like to implement smart dustbin?
92. Why is smart dustbin so essential?
93. What inspired you to conceptualise this project?
94. Draw the case diagram of smart dustbin?
95. Explain the sequence diagram of smart dustbin?
96. Draw the flowchart for the working of smart dustbin?



97. Why can't smart dustbin segregate ceramic into dry waste?
98. How to increase the overall efficiency of smart dustbin?
99. Who proposed swachh Baharat Abhiyaan for the first time?
100. What is the main aim of this project?



SMART BANK LOCKER SYSTEM

1. What are the components used in a project?
2. What is GSM?
3. Explain the working principle of GSM.
4. What is LDR?
5. Explain the working principle of LDR.
6. What kind of GSM is used in this project?
7. Which LDR is used in this project?
8. How intensity will be varying in LDR?
9. Explain the application of image sensor in this project.
10. What is the basic scientific principle involved in this project?
11. What is the goals and objective of this project?
12. How this project is innovative compared to another project?
13. What is the benefit of this project?
14. Which target population of user can use this application?
15. How it will provide access to only authorized person.
16. Light dependent resistor are made up of which material?
17. What is photo conductivity?
18. What is the characteristic of LDR?
19. What is the application of LDR?
20. Explain the types of light dependent resistor.
21. How LDR is interface with arduino.
22. How GSM is interface with arduino.
23. What is the application of GSM?
24. What is intrinsic photo resistor?
25. What is extrinsic photo resistor?
26. Explain the construction of photocell.
27. Explain the call flow of mobile originated call and mobile terminated call flow in GSM.
28. Explain the GSM frame structure.
29. Explain the GSM channel types.
30. What are the different frequency bands supported in GSM?
31. What is the difference between GSM and GPRS?
32. Explain the difference between TDMA, FDMA, and CDMA.
33. What is BSIC? Why it is needed in GSM system.
34. Explain types of handover.
35. Explain different elements of GSM network architecture.
36. How this project will helpful at the time of investigation.
37. What is the innovation in this project?
38. How this locker system is differed from existing one.
39. What is the drawback of manual locker system?
40. What is the business plan of this project?
41. Which microcontroller is used in this project?
42. Which image sensor is used in this project?
43. How GSM will send message to the owner.
44. What is meant by microcontroller?
45. List out the features of microcontroller.
46. Explain the interfacing of microcontroller with external EPROM device.
47. Explain serial communication flags and registers used in microcontroller.
48. Explain internal architecture of 8051 microcontroller.
49. What is the difference between microcontroller and microprocessor?
50. Explain pin description of 8051 microcontroller.
51. What is the advantage of this project?
52. What is the limitation of this project.



53. Explain the methods involved in this project.
54. What is TTL output?
55. What is the future scope for this project?
56. What are the features of GSM?
57. What is the difference between GSM and cellular phone.
58. What is the supply voltage of GSM?
59. What is the minimum power consumption in GSM?
60. Explain the comparison between the existing and proposed locker system.
61. In today's modern world how security plays an important role?
62. How this project reduces the time of bank employee?
63. Explain the different types of image sensors.
64. What is image acquisition?
65. Explain image acquisition using single sensor.
66. What is image sampling and quantization?
67. How can we represent digital images?
68. What is meant by register and accumulator in microcontroller?
69. What is an interrupt in microcontroller.
70. What are the types of interrupts in 8051 microcontrollers?
71. Explain the data types used in microcontroller programming?
72. Explain the difference types of microcontroller?
73. What is the operating voltage of microcontroller?
74. What is AVR series microcontroller?
75. What is ARM series microcontroller?
76. What is PIC series microcontroller?
77. What is the difference between timer and counter of microcontroller?
78. Instead of LDR which material can be used for this project?
79. How LDR is differing from photo diode and photo transistor?
80. How the sensitivity of LDR is varying?
81. What is the minimum light intensity of LDR in day light?
82. What is the minimum light intensity of LDR in night light?
83. What is dark resistance according with a LDR?
84. Expand GSM?
85. Expand LDR?
86. Which sensor is used to detect light in this project?
87. How much voltage is given by LDR when connected to Vcc?
88. What is the function of arduino?
89. How arduino is differ from microcontroller.
90. What is the aim of this project?
91. What is the future scope for this project?
92. How can we further improve this project.
93. What is the reference voltage of microcontroller?
94. GSM will work in which frequency range.
95. What is the advantage of GSM?
96. What is the analog application and digital application of LDR?
97. What is the operating voltage and current of the LDR?
98. How can we implement this project in banks?
99. Explain the business plan of this project?
100. What is the conclusion of this project?



FLEXI BRICKS FOR GREEN BUILDING

1. What is the aim of this project?
2. What is the importance of this project?
3. What is the basic requirement for this project?
4. Is it better from other bricks?
5. What is the difference between our brick and other brick?
6. Is it made up by conventional or non-conventional method?
7. Is it economical to our society?
8. What is sustainability?
9. What are the flexi bricks?
10. What are the green buildings?
11. Why do we call it as a green building?
12. What is saw dust?
13. Why do we use the saw dust?
14. How do we get the saw dust?
15. How much does it cost?
16. Is it convenient to take from all types' wood logs?
17. Is it bi-product of any wood manufactures?
18. Is it biodegradable product?
19. What is the approximate weight of saw dust to be use?
20. Which type of paper is feasible?
21. How do we get finely powdered paper?
22. Why do we use the finely powdered waste paper?
23. From where do we get the finely powdered waste paper?
24. What is the proportion of the waste paper in this brick?
25. Why do we require finely powdered waste paper?
26. Is it a waste product of paper mill?
27. What is a binder?
28. Which type of binder do we use?
29. How many types of binder are there?
30. What type of binder is suitable for this brick?
31. What is the role of binders?
32. Is the binder flammable?
33. Is anything additionally added to these binders?
34. From where do we get these binders?
35. What is resin?
36. What is hardener?
37. What are catalyses?
38. What are the resin, hardener, catalyses do we use?
39. What are the actual proportional these to be mixed?
40. What is the chemical formula of this binder?
41. What is moulding?
42. What is mould box?
43. Which type of mould box is suitable?
44. What are the required dimensions of the mould box?
45. What is the proportion of aggregates?
46. In which way do we mix it?
47. How do we measure theses aggregates?
48. Any time restrictions after mixing?
49. Any safety measures are required?
50. What are rammers?
51. Are there any precautionary measures for removing the mould from mould box?
52. What is the time required for curing?
53. Whether it should have cooled under sun or any other methods to be followed?
54. What are the clamping plates that we have used in the mould boxes?



55. Are the clamping plate's necessary one?
56. Why are rammers used?
57. Is there any certain amount of the pressure that need to be applied?
58. Are there any defects that are generated in casting?
59. How do we overcome this defect?
60. What is this hydraulic jack?
61. What is this interlocking system that is involved in it?
62. How do we make this interlocking system in this?
63. What is the use of such interlocking system?
64. Why are they made in cups and cone shape?
65. For interlocking system again separate mould box is required?
66. On what basis do we say that these bricks are stronger than other?
67. What are the necessary tests that have to be performed for these bricks?
68. What is rule of mixture?
69. In which way we apply the rule of mixture?
70. For each test how many bricks are required?
71. What is compression test and how do we perform this test?
72. Why is it necessary to perform this test?
73. What values we obtain are better than other bricks?
74. What is Bending test and how do we conduct these tests?
75. Why is it necessary to perform this test?
76. Are the values obtained from this are better than other bricks?
77. What is water absorption test? How do we conduct this?
78. Does sawdust and paper have higher water absorption capacity?
79. Totally how many test bricks that are required for these tests?
80. What bricks we make are they suitable for all the temperatures?
81. What final conclusions we come across from all these tests?
82. Up to what limit they bricks are flexible?
83. As they are made up of sawdust there may be chance of pest attack to this how do we prevent this?
84. Is this wood paint same as that of polishing the furniture's?
85. Are they same rigid as the other brick we use?
86. In each brick how many such cup and cone shapes should be made?
87. Is this brick suitable for mass productions?
88. Where do we come across such bricks?
89. Are these bricks suitable in constructions?
90. In what way they are flexible than other bricks?
91. In what way these bricks are advantageous to the society?
92. "Every merit has a demerit" in what are the demerits?
93. What are the different applications of this brick?
94. Is this brick suitable for mass production?
95. If we produce this brick in mass then what may be the cost of each brick?
96. Once its build is it easier to demolish?
97. Is this brick a reusable?
98. Where other than green buildings we use this brick?



99. How do these bricks used as the fire brick? If so what energy do they produce
100. What is the prerequisite knowledge should we have for this project?



DETECTION AND REMOVAL OF PHOSPHATE USING MICRO CONTROLLER AND WIRELESS ACCESSIBLE SENSOR

1. What is Current?
2. What is potential?
3. What is Resistance?
4. What is Conductivity?
5. Why we have to detect phosphate?
6. Where we have to detect Phosphate?
7. Advantage of detection of phosphate
8. Why we have to remove the Phosphate?
9. From Where we have to remove phosphate?
10. Is our method is the only method available?
11. How our method is cheap?
12. What is Dc current?
13. What is ac Current?
14. Why we use DC Current?
15. Why we need Wireless?
16. What is wireless?
17. Which wireless technology we are using in this project?
18. What is Bluetooth?
19. What is microcontroller?
20. Why we need Raspberry pi?
21. What sensors we are using?
22. What type of sensor we are using?
23. What is IOT?
24. What is internet?
25. Why laptop is so costly?
26. Why raspberry pi is cheap?
27. Is our project water proof?
28. What is Anveshana?
29. What are the benefits for students?
30. Why we have to learn these?
31. What is the benefit of learning your project?
32. What is dc motor?
32. Why we won't use ac motor?
33. Is ac motor available?
34. How much current needed by dc motor?
35. Principle of working of motor
35. What is cw and ccw?
36. Is dc motor having only 2 wires?
37. Three wired dc motor called
38. Which board we are using?
39. Cost of board?
40. Explain about board (Hardware Board Arduino)
41. Why It is connected to laptop?
42. Which cable is used to connect to laptop?
43. What is USB?
44. What is pen drive?
45. Difference between Pen drive and memory card?
46. What is data?
47. What is analog?
48. What is digital?
49. What is program?
50. How to learn program?
51. Why hardware is so small in board?
52. What is LCD?
53. How it works?
54. How the Anveshana is helping the students to exhibit their knowledge
55. What is battery?



56. Types of batteries?
57. Which battery we are using in our project?
58. What is project?
59. Why we have to study?
60. What is conductivity?
61. What is resistivity?
62. What are electrons?
63. How much small the atom is?
64. Why we can't see electricity?
65. What is measurement?
66. What is electrolysis?
67. What are electrodes?
68. Which electrode we are using?
69. Why we have to use this electrode?
70. What are SI unit?
71. What is SI unit of resistance?
72. SI unit of conductance?
73. Unit of voltage?
74. What is power?
75. What is ohms law?
76. Explain about magnetism?
77. How motor rotates?
78. Explain rotation of motor
79. Can we prepare our own sensor?
80. Why we need wireless technology
81. Why we use gsm module?
82. What is Gsm Module?
83. What is hardware?
84. What is software?
85. Which hardware we are using?
86. Which software we will use?
87. Is our project is simple as it looks?
88. How to convert this project into product?
89. How much its total cost?
90. Is students have to pay money?
91. What is the hardware we are using in our project?
92. Why our project looks like so many wires in it?
93. What is the problem of Bellandur Lake?
94. How our project can help to solve Bellandur lake problem?
95. Adopting this method is really good?
96. Benefits of adopting this method to Bellandur Lake
97. What is the limitation of our project?
98. Is there any alternative methods to overcome it?
99. Is raspberry pi can be used by students?
100. Can Government give raspberry pi to each student?



ARECA SPRAY SYSTEM BY DRONE

1. Why does 'AGASTYA FOUNDATION' conduct the exhibition and inspires camps?
2. What is your project about?
3. Why did you select this project?
4. Project basically on which subject (type)?
5. What is the aim of the project?
6. What is the main theme of the project?
7. Scope of the project?
8. What are the benefits of the project?
9. How model is useful for the society?
10. What are the advantages of the project?
11. What are the disadvantages of the project?
12. Is this project helpful for the human being?
13. How it is helpful for human being?
14. What is the main element area used in this project?
15. What is drone?
16. How do you differ the drone is quad copter?
17. Parts of quad copter drone?
18. Weight of the drone from this project?
19. Cost of quad copter drone in this project?
20. Function of quad copter?
21. Which type of motor is used in this project?
22. Specification of the motor.
23. What is the working principle of motor?
24. What kind of battery is used for drone?
25. Drone frame is made up of which material?
26. Specification of the battery
27. How battery is working?
28. Working principle of LiPo battery.
29. What is the use of remote system?
30. How connection is made in remote controller.
31. What is sensor?
32. What is IR- Sensor.?
33. Working principle of IR-sensor?
34. Use of IR-sensor
35. What is servo motor?
36. How servo motor works?
37. Use of servo motor.
38. What is 1st attachment of this project?
39. What is 2nd attachment of this project?
40. Working principle of 1st attachment.
41. Working principle of 2nd attachment.
42. Weight of 1st attachment.
43. Weight of 2nd attachment.
44. Application of Attachment-1.
45. Application of Attachment-2
46. Now a day which type of areca spraying is done?
47. How can drone spraying is help the former?
48. Sprayer pressure of the Attachment 1.
49. Sprayer pressure of the Attachment 2.
50. Element of sprayer attachment?
51. What kind of battery is used for spraying attachment?
52. Battery specification of sprayer attachment?
53. What is the diameter of the pipe connecting to the small storage tank to the nozzle sprayer attachment.?
54. What is the basic key to maintain the disorientation of drone during air borne condition?
55. What is the all precautionary measure to be taken in order to maintain sound condition of the drone insecticides spraying system?



56. How does the prototype differ from actual model?
57. How does sensor work in sprayer attachment?
58. How can former understand the complete process of operation?
59. What are the parameters involved in spraying system?
60. How do you teach the former to importance of such application?
61. Why former may choose by the use these deice for agriculture purpose?
62. How these devices can reduce the time need to work?
63. What are the future implement of spraying attachment?
64. What is model?
65. What is prototype?
66. Objectives of model?
67. Difference between the model and prototype.
68. What is pump?
69. What is the use of pump?
70. What is diaphragm pump?
71. Working principle of diaphragm pump?
72. Use of diaphragm pump?
73. How nozzle setup done in 2nd attachment?
74. How many agriculture trusts do you know?
75. Which trust is helping your agricultural based project?
76. Approximate cost of the project?
77. How feel about you project “ARECA INSECTICIDE SPRAYING SYSTEM BY DRONE”?
78. Which method is more effective drone spraying method or conventional method?
79. How to implement the project on the large scale?
80. How can former adapt the usage of the drone in their daily work?



EMERGENCY FIRST AID DRONE

1. What is a drone?
2. What is the Application of drones?
3. Where drones are used?
4. On what principle drones work?
5. What is the microprocessor used in drones?
6. Are drones manual or automatic?
7. Can drones replace vehicles?
8. What is the carrying capacity of drones?
9. What are the different types of drones?
10. Is drones banned in India?
11. Why drones are known as life protectors?
12. What is the specification of drones?
13. Are drones harmful?
14. What is the difference between drones and helipads?
15. What is the budget of normal drones?
16. Can drones replace human activities?
17. What are the basis components of drones?
18. Can people travel on drones?
19. Are drones limited to working premises?
20. What makes difference between quad copter and octocopter?
21. What is the battery capacity to be charged?
22. How high can a drone travel?
23. What is the travelling range of a drone?
24. Can drones capture pictures?
25. Are drones related to software or hardware?
26. Disadvantages of drones?
27. Limitation of drones?
28. Should we take license to buy a drone?
29. Are drones harmful?
30. How many days it takes to build a drone?
31. What is the speed of the rotors?
32. Why rotor rotates parallel on clockwise and anticlockwise direction?
33. Is stability important factor for flying a drone?
34. What is the use of barometer on drones?
35. Why do we use GPS module?
36. What are transmitters and receivers?
37. How GPS navigation gives exact location?
38. What is the software used to design the drone?
39. What is the cost for building a drone?
40. Are drones made based on light weight principle?
41. How drones can change the future?
42. How are drones implemented towards people?
43. How can we build a drone?
44. Can we travel on drones?
45. What makes difference between drones and helicopter?
46. What is aeration level on drones?
47. What is switch error?
48. How can we operate drones through mobile phones?
49. Can we change the design and implementation once we design the drone?
50. How can we change internal configuration of the drones?
51. How drones help in military areas?
52. Can we buy drones for practical purpose and use it in society?
53. What's the backup plan if battery in drones fails?
54. Why alternative motors are rotating in opposite direction?
55. What is the drawback on drones in India?



56. Will drones change the standard of living of the people?
57. Why drones are known as unmanned vehicles?
58. What are the limits on speed of drones?
59. Can drones be affected by climate changes?
60. What makes the drones most suitable to exist?
61. What's the working plan and method to implement?
62. What is the IC which is mounted on drones?
63. What are the different types of drones?
64. List out the effects of emergency landing?
65. Can we use drones at dark places? Can it visualize the objects?
66. What is the latest technology on drones?
67. What is emergency mode on drones?
68. How can we bring into ideas and technology for compact design of drones?
69. Can we use satellite navigation?
70. Do we need experience for handling the drones?
71. Do drones need large space for working?
72. What is key factor upon the drones?
73. What is necessary for communication for drones?
74. Can drones be operated by unskilled people?
75. How to controller the Microcontroller?
76. What is software implementation of drones?
77. Can we have drones flying always on sky?
78. What is the social impact towards drones?
79. What is the primary measure that should be taken while flying the drones?
80. What is mounting?
81. List out the components which are used on drones.
82. How are drones made?
83. Where can we see drones?
84. What is the ideology behind the creation of drones
85. What is the maximum usage capacity of the drones in urban areas
86. Can drones travel faster?
87. What is the minimum length for drone implementation?
88. How to solve problems arising on drones?
89. What are the means of devices which can be connected to the drones?
90. What is license approval?
91. Can we use drones under water?
92. What is the main factor why makes drones so efficient?
93. What is stability imbalance condition?
94. What are the main causes for drone existence?
95. How is Mission planner software used?
96. What is smart mode on drones?
97. How drones can be modified based upon latest technology?
98. How much time we need to build up a drone?
99. How to calibrate various components of Octocopter?
100. Can drones be the future for traveling and replacing vehicles?



TREE CLIMBING CYCLE

1. What is gravitational force?
2. What is friction?
3. What is motion?
4. Which energy is present in the tree climbing model?
5. How to move tree climbing cycle?
6. Define frame?
7. Define intermediate fly wheel?
8. What is gripper?
9. Define paddle?
10. What is tree trunk?
11. What is wheel?
12. Define handle of cycle?
13. Define the supporting arm?
14. Define the seat?
15. What is chain?
16. What is break?
17. What is collector?
18. Define the stand?
19. What is gripper wheel?
20. Who discover the gravitational force?
21. When did discover the gravitational force?
22. Define tire?
23. Define rim?
24. Which materials are used manufactures of cycle?
25. Define carriage?
26. What are the advantages of cycle?
27. What are the disadvantages of cycle?
28. What are the changes of tree climbing cycle model?
29. What is the earth gravitational force?
30. Who discovered the cycle?
31. What are the uses of tree climbing cycle?
32. How to help the farmers of tree climbing cycle?
33. Which trees are used to tree climbing cycle model?
34. How to manufacture the tree climbing cycle?
35. Which are the diseases are deflected by using of this model?
36. Why do you use tree climbing cycle model?
37. What are the characteristics of this model?
38. How to goes down from tip of tree in this model?
39. How the gripper wheels help the tree climbing cycle?
40. How the intermediate fly wheel helps the tree climbing cycle?
41. What is the role of chain in the tree climbing cycle?
42. When did discover the bicycle?
43. What is the role of gripper wheel in the tree climbing cycle?
44. What are the disadvantages of tree climbing cycle?
45. What is the function of the paddle?
46. What is the role of collector?
47. What is the function of intermediate flywheel?
48. What is the role of supporting arm?
49. What is the role of stand?
50. Which are the materials are used to manufacture of wheel?
51. How to use the collector in the tree climbing of cycle?
52. What is the role of sprocket?
53. Which type of braking system have you used?
54. Working of brakes?
55. What kind of energy transfer takes place in braking system?



56. Types of braking system?
57. What are the components of braking system?
58. How hydraulic brakes work?
59. Define Pascal's law?
60. Explain master cylinder in brake system?
61. Why liquid is used instead of gases in brakes?
62. Explain Advantages of brakes in the project?
63. Explain disadvantages of brakes in project?
64. How a disc brake works?
65. Which type of bearings is used in the system?
66. Explain types of bearings?
67. What will be the weight of model?
68. Explain center of gravity?
69. Which kind of trees it is suitable for?
70. Which is the mechanism used for providing motion?
71. Does this system use any source of energy?
72. Is this system economical for farmers?
73. What is the trunk diameter it can support?
74. Does it work effectively for angled trees?
75. What is the maintenance cost?
76. What is the service life of this model?
77. Which are the precautions on point of operator safety?
78. Which types of rollers are used here?
79. Is this suitable for any seasons?
80. Is it suitable for uneven surfaces?
81. What are the calculations done to find cg?
82. Which are the tyres used here?
83. What are the types of grippers used?
84. Which material is used for construction of frame?
85. How the balancing of masses is done?
86. What have you done to reduce vibrations?
87. What is the time taken to climb the tree?
88. Can we use it for any other applications, if then which?
89. What is the optimum cost of this model?
90. What is the manufacturing time?
91. Which lubricating oils have you used?
92. Once you reach at top what is locking mechanism used?
93. What is new technology from your point of view in this project?
94. Is it affordable for farmer?
95. Can person of any age operate this?
96. Does it withstand human load at any height?
97. Any secondary application area where it can be used?
98. What is new innovation in this project?
99. What are the objectives of the project?
100. Any other field it can be used other than agricultural?



OMEGA LUTEIN ENRICHED NUTRI EGG

1. How much silk worm pupae is discarded per annum per kg?
2. What is Alpha-linolenic acid?
3. Why is Alpha-linolenic acid important to us?
4. What does deficiency of Alpha-linolenic acid cause?
5. What amount of Alpha-linolenic acid do we need?
6. Is alpha linolenic acid synthesized in our body?
7. What are the supplements of Alpha-linolenic acid?
8. What happens if we intake an excess of Alpha-linolenic acid?
9. What are omega-3 fatty acids?
10. Why are omega-3 fatty acids important?
11. What are the supplements of omega-3 fatty acids?
12. What amount of omega-3 fatty acids do we need?
13. What does deficiency of omega-3 fatty acids cause?
14. What are the different Species of Silk Worm?
15. Which Species of Silk Worm have we used for the project?
16. What does the silkworm Bombyx mori feed on?
17. What is silk pupa?
18. Why is it necessary to kill the pupa to obtain silk?
19. What is the life cycle of silk moth?
20. What are carotenoids?
21. Why are we using only marigold flowers?
22. Which variety of marigold flowers are we using?
23. Do the other flowers also contain lutein?
24. What is the number of carotenoids in marigold flowers?
25. Which part of the marigold flower did we use to extract lutein?
26. How does the application of marigold extract in poultry feed help?
27. How do we apply marigold extract to poultry feed?
28. Why are we using silkworm pupae?
29. Does the addition of these supplements to poultry feed affect the poultry?
30. Does the addition of these supplements to poultry feed benefit the poultry?
31. Does the addition of these supplements to poultry feed improve the egg quality?
32. How does addition of these supplements to poultry feed improve the quality of egg?
33. What is the difference between a normal egg and the enriched nutri-egg?
34. What does the enriched nutri-egg look like?
35. How much will the enriched nutri-egg cost?
36. What are the benefits of consuming enriched nutri-egg?
37. Can the enriched egg have side effects on people consuming it?
38. Why are we using eggs to supplement humans?
39. Can we not consume the lutein and Alpha-linolenic acid supplement directly?
40. What will happen if we consume the lutein and Alpha-linolenic acid supplement directly?
41. How does the project benefit the society?
42. Are the designer eggs consumable by all age groups?
43. How is Alpha-linolenic acid extracted from silkworm pupa?
44. How is lutein extracted from marigold flower petals?
45. Does the lutein extract also contain other contaminants?
46. What diseases can the designer eggs prevent and/or cure?
47. Does the enrichment of poultry feed increase its life span?
48. What is AMD?
49. How much of silkworm pupa is wasted in India every year?



50. How much of marigold flowers are wasted in India?
51. Does the addition of alpha-linolenic acid and lutein to the designer eggs effect its fatty acid composition?
52. Is the cholesterol level reduced in the designer eggs?
53. How much marigold is discarded per annum per kg?
54. What are the manifestations of AMD, cataract and retinitis pigments?
55. What are the manifestations of Alzheimer's disease, athero sclerosis and cancer?
56. What are the benefits extracted from silk worm pupae oil?
57. Why is it necessary to incorporate lutein and ALA into eggs and not any other food source?
58. What is the meaning of bioavailability?
59. What does synergistic extraction of lutein and ALA mean?
60. What are the benefits of consuming the designer eggs over the regular eggs?
61. What are the side effects of consuming the designer eggs?
62. How much ALA and lutein can be incorporated into one egg?
63. On an average, how many kilograms of marigold and pupa oil is required to manufacture one designer egg?
64. What is the significance of long chain fatty acids EPA and DHA?
65. What is the significance of prostacyclin?
66. What is the marigold drying time?
67. What is the temperature that should be maintained for marigold drying?
68. How are carotenoids extracted from marigold? Mention the methods.
69. How is ALA extracted from pupae oil?
70. What is the species of marigold used for the purpose of our project?
71. What is the purpose of using this species over other species?
72. What is the species of pupae used for the purpose of our project?
73. What is the purpose of using this species over other species?
74. What is the lutein content in the species of marigold that you are using?
75. On an average, how much pupae oil can be extracted from the species of pupae we are using?
76. How is the purification of free lutein from marigold flowers done?
77. How do you mean by saponification and liquid chromatography?
78. Once the poultry feed is consumed by the hens, what is the guarantee that lutein and ALA will be retained in the egg even after digestion?
79. How is the egg shell made harder?
80. How can the cholesterol in the egg be reduced?
81. How is the analysis of free lutein by HPLC done?
82. What are the chemical characteristics of lutein?
83. Mention the stability and reaction of lutein in food?
84. What are the antioxidant activities of lutein?
85. What do you mean by carotenoids?
86. What are the different types of carotenoids?
87. What are the solvents used for the extraction of lutein by maceration?
88. Why is marigold in encapsulated form more stable against oxidation than in powdered form?



89. Is it possible to incorporate other nutrients into the designer eggs too?
90. What are the side effects of incorporating other nutrients along with ALA and lutein into the designer eggs?
91. What is the innovation behind this project?
92. What is the final cost of the project?
93. Is the cost of the project worth the benefits we get out of the designer eggs?
94. How much have you learnt from this project?
95. How can the things you have learnt from this project be inculcated in your biotechnology course?
96. What is the final goal of your project?
97. Has the use of designer eggs been tested on any human before?
98. On an average, how long will it take for the benefits of lutein and ALA to become visible inside the human body?
99. How does the name of the project substantiate its purpose?
100. What are our marketing strategies to sell the designer eggs?



ULTRASONIC NAVIGATION PROJECT

1. What is ultrasonic?
2. Can people hear ultrasonic?
3. What is the difference between ultrasound and ultrasonic?
4. Is ultrasonic sound harmful to humans?
5. How many Hertz is an ultrasound?
6. What is the frequency range of ultrasonic sensor?
7. How does an ultrasonic sensor work?
8. How ultrasonic detect the obstacles?
9. How blinds sense the obstacles?
10. What are vibrators?
11. How vibrators work?
12. How much voltage needs run the vibrators?
13. Is vibrators AC or DC?
14. How much volts require running the controllers and sensors?
15. How many ultrasonic sensors are used in this project?
16. How to set the distances for detecting the obstacles?
17. Is it compatible for blinds to wear this kit?
18. Which software is used for simulation?
19. What is the controller?
20. Which software is used to program the controller?
21. Which controller is used in this project?
22. Which controller is used for this project?
23. How controller works?
24. How to program the controller?
25. How to connect the computers to controller?
26. Which language is used to program the controller?
27. Which logic is used in code?
28. Which type of crystal is used in this project?
29. What is crystal?
30. How much Hertz it will produce?
31. What is USB to TTL converter?
32. Which type USB to TTL converter is used?
33. How USB to TTL converter works?
34. How much voltage require run the USB to TTL converter?
35. What is voltage regulator?
36. Which voltage regulators are used in this project?
37. How voltage regulator works?
38. How to controller the heat produced by the voltage regulator?
39. What is heat sink?
40. How heat sink works?
41. How each ultrasonic sensor works?
42. How controller receives the signal from sensors?
43. How controllers send the frequency to sensors?
44. What is frequency?
45. How frequency is generated by controller?
46. How frequency is controlled by controller?
47. What is difference between ultrasonic and infrared sensors?
48. Why only ultrasonic why not GPS?
49. Is it ultrasonic water proof?
50. What are disadvantages of using ultrasonic?
51. What is the advantage of using ultrasonic?
52. Is it ultrasonic detecting the glass?
53. What types of battery are used?
54. How much volt's battery produces?
55. How much amp's battery will produce?
56. How to charge the battery?
57. How much volts require charging the battery?



58. Which type of adaptors is requiring charging the battery?
59. How long battery will give the backup?
60. What are the advantages of using lithium ion battery?
61. How much amps/hour in battery used?
62. What is amps/hour?
63. What is the working of each sensor?
64. How all sensors work at same time?
65. If all sensors detect the obstacles, how controllers control the vibrators?
66. How blinds understand which sensor is on?
67. How blinds understand that which side obstacle is present?
68. What is laser navigation, why not laser navigation?
69. What is the efficiency of this project?
70. How much cost is this project?
71. What is navigation?
72. How navigation works?
73. How GPS navigation works?
74. How laser navigation works?
75. What is the use of this project?
76. What is atmega328p-pu?
77. What is atmega?
78. How much digital pins are available in atmega328p-pu controller?
79. How much pwm pins are available in atmega328p-pu controller?
80. How much analog pins are available in atmega328p-pu controller?
81. How simulation is done before making hardware?
82. Which application used for simulation?
83. What is simulation?
84. Why simulation is used?
85. How blinds sense if battery is low?
86. How battery low indicators are works?
87. What is battery low indicator?
88. What is the use of low battery indicator?
89. Which principle is used for low battery indicator?
90. How water level sensor works?
91. What is water level sensor?
92. Which principle is used in water level sensor?
93. What is the use of water level sensors?
94. Is it water level sensor detect the sewage water?
95. How blinds sense the water level sensor signals?
96. What is blind stick?
97. What is use of blind stick?
98. How blind stick works?
99. What are steps involved in project?
100. What is total cost of these projects?



FOG CAMERA VISION IN VEHICLES

1. What is the title of the project?
2. How did we get this idea?
3. What inspired us to implement this idea?
4. What are the main objectives behind our project?
5. Whether this idea implemented?
6. How did we approach the project?
7. Who all contributed for the successful completion of the project?
8. What are the components used in the project?
9. What are the various technology used in the project?
10. What is the motto behind our project?
11. What are the main causes of accidents in hilly areas?
12. What are the benefits of our project to the young learners?
13. How our project contributes for the development of society?
14. What are the benefits of our project to the common people?
15. What are the difficulties that we have faced while implementing the project?
16. If the project doesn't succeed, what are the implications?
17. What are the project's greatest assets?
18. How can we best leverage those assets?
19. What are the various areas, where we can implement the project?
20. What is the main technology behind our idea?
21. What are the other alternate technologies that we can exploit to make the system reliable?
22. What is the approximate life of the model?
23. What is IOT?
24. What is Arduino?
25. What is the importance of Arduino in growing technology?
26. What is the role of Arduino in our project?
27. What is fog?
28. Why there is a requirement of safe driving through fog?
29. What is fog vision camera?
30. Why there is a need of "fog vision camera" in our project?
31. What are the specifications of the fog vision camera?
32. What is the specialty of fog vision camera that we are using in our project?
33. What is the working principle behind the fog vision camera?
34. Where exactly the fog vision camera is fixed in the vehicle?
35. Does the fog vision camera capable to work even in dark?
36. If so, what is the working principle behind that?
37. What is thermal imaging camera?
38. What are its applications?
39. How actually the driver can drive safely through fog?
40. What are the specifications of the screen that we are using?
41. How it helps the driver to drive safely?
42. What are the various methods of communication between the devices used in the project?



43. What kind of communication is employed in our project?
44. Why that mode of communication is preferred over the other in our project?
45. What is wired communication?
46. What are the advantages and disadvantages of wired communication?
47. What is wireless communication?
48. What are the advantages and disadvantages of wireless communication?
49. How the fog vision camera communicates with the screen?
50. What is adapter?
51. What is the specification of battery?
52. What is ultrasonic sensor?
53. What is the importance of ultrasonic sensor?
54. What is the specification of ultrasonic sensor?
55. How ultrasonic sensor works?
56. What are the two main parts of ultrasonic sensor?
57. What are transmitter and receptor?
58. What is the role of ultrasonic sensor in our project?
59. What is anti-collision system?
60. Why there is a requirement of anti-collision system?
61. How anti-collision system works?
62. What is various method of controlling a robot?
63. How we are demonstrating our project?
64. What kind of motors is used to build robot, on which we are implementing our idea?
65. What are the various vehicles on which we implement this idea?
66. What are the loop-holes in our project?
67. How we can overcome them?
68. What are the difficulties that we have faced while implementing the project?
69. How we have overcome those difficulties?
70. What are the improvements needed in the project?
71. What is the future scope of the project?
72. What is a prototype?
73. How to commercialize our prototype?
74. What is the difference between a real time model and prototype model?
75. What are the improvements needed to convert our prototype model to working model?
76. What are the difficulties that we observe while transforming our project from prototype to real time model?
77. What is the various developments in the society that we observe after implementing our project as real time model?
78. What is the total cost of implementing the project?
79. What is the approximate cost of implementing of our project as real time model?
80. Is this project already implemented?
81. If not, what is the speciality of your project?
82. What all the young learners learnt from the project?
83. What are the various technologies they got exposed to? And how they are going to utilize those technologies in their upcoming academic projects?
84. Which are the companies that have already adopted this system?
85. Name some accidents which have taken place due to fog.



86. Is there any business plans regarding this project?
87. What will be the future extension of our project?
88. How our project contributes for smart city concept?
89. What might be the decrement in accident rate after implementing this project in real time system?
90. What are the new technologies that we have added to make the project more reliable?
91. What are the demerits of our project?
92. Is there any possibility of misusing our product?
93. Is our product ethically correct?
94. Can it become a milestone in the field of safe transportation system?
95. What is the scope of development of this project in future?
96. What is approximate duration that we have taken to complete this project?
97. How our project is different from already existing system?
98. Can common people afford this product?



AUTOMATICALLY OPERATED IOT BASED WEARABLE SAFETY DEVICE FOR GIRL AND WOMEN

1. What is safety?
2. Do women really required safety devices?
3. Is Indian safe for women?
4. List the some of the safety devices available in the market?
5. What are the drawbacks of safety devices available in the market?
6. Is there any device that automatically senses the emergency?
7. Do apps like vithu and bcp really help in the safety of small children?
8. Is western culture the main reason for insecurity?
9. What is NCRB?
10. How many cases were registered in India in 2015?
11. List the women safety laws?
12. Where India stands in terms of women crime?
13. Is crime on women is more because of its flexible rule?
14. What is IOT?
15. What is gland?
16. Types of glands?
17. What are endocrine glands?
18. What are exocrine glands?
19. List endocrine glands?
20. List exocrine glands?
21. What is hormone?
22. Types of hormone?
23. Which organ has both endocrine and exocrine function?
24. Which is called as master control center?
25. Which is pea shaped gland?
26. Anterior pituitary is also called as?
27. Posterior pituitary is also called as?
28. List the hormones released by hypothalamus?
29. List the hormones released by pituitary glands?
30. What is the role of the hormone adrenciticotropin?
31. List the hormones of adrenal glands?
32. Which is called as emergency hormone?
33. What happens if the emergency hormones levels are high in our blood?
34. What happens if the emergency hormones levels are too low in our blood?
35. What is stress?
36. What is stress booster?
37. How the stress levels are linked with the hormones?
38. What is caffeine?
39. How caffeine related to stress?
40. Is the stress levels are same for all the people?
41. How can we detect the stress?
42. What is gsr?
43. What is your gsr levels during relax state?
44. What is gsr levels during stress?
45. What is normal pulse rate for women?
What is the normal pulse rate for men?
46. What is system?
47. What is control system?
48. What is open loop control system?
49. Why loop is used?
50. What is close loop control system?
51. What is sensor?
52. What is temperature?
53. Name the instrument that our body temperature?



54. What is normal human temperature in Celsius scale?
55. What is normal human temperature in Fahrenheit scale?
56. How to convert Celsius to Fahrenheit?
57. How to convert Fahrenheit to Celsius?
58. What is lm35?
59. How is temperature affected during stress?
60. What is photo plethysmo graph?
61. What is fitness tracker?
62. What is electrode?
63. What is accelerometer?
64. What is diabetes mellitus?
65. What is diabetes insipidus?
66. What is sudomotor dysfunction?
67. What is blood pressure?
68. What is epilepsy?
69. What is arduino?
70. Pin configuration of arduino?
71. Where does arduino fits?
72. What is web?
73. What is internet?
74. What is ssid?
75. What is IP address?
76. What is GPS?
77. What is GPS module?
78. What is longitude?
79. What is latitude?
80. What is serial communication
81. What is one to one communication
82. What is one to many communication
83. What is alert message
84. How to find exact location using longitude and latitude?
85. What is esp4866?
86. What is voltage divider?
87. What is voltage controller?
88. What is algorithm
89. What is Wi-Fi module?
90. What is think speak public server?
91. What IOT?
92. How IOT works?
93. Name some think speak like public web servers?
94. What is delay time for uploading data for think speak server?
95. What is MATLAB?
96. Can we access mat lab using think speak?
What is AT commands?
97. What are the AT configurations of esp8266?
98. What is write api key?
99. What is read api key?



LOCOMOTIVE HORNING

1. How does the horn of locomotive work?
2. What is the way to measure noise?
3. What is decibel?
4. What does dB mean?
5. Why horning is required at level crossing?
6. What is noise pollution?
7. How wireless communication happens?
8. What is a signal?
9. What is a drone?
10. What is a pilot for locomotives?
11. How will the driver know about proper horning?
12. How noise is reduced in developed countries?
13. How is braking done in locomotives?
14. How sound is produced?
15. What is a sine wave?
16. What is frequency of sound?
17. How many frequencies are present on locomotive horning sound?
18. How far does the horning sound travel?
19. Why can't the locomotive be stopped quickly?
20. What is W/L sign?
21. Why do accidents happen in railways?
22. When is a driver required to horn?
23. What is the circuit for sound production?
24. What should we show in the project?
25. Should we have a moving train in our project?
26. How to produce the horning sound?
27. Should we show the actual wireless operation?
28. How many wheels should be there for drone?
29. How should the wheels be driven?
30. Why can't we have a flying drone?
31. How will the drone move?
32. How to charge the drone?
33. How should we make the rails?
34. Should the rails be metallic?
35. How can we make the wheels of the drone?
36. What type of electric motor is required?
37. How long should be the tracks?
38. How wide should be the tracks?
39. How wide are the actual tracks?
40. What is unmanned level crossing?
41. Why is it called a level crossing?
42. Why level crossings are required?
43. What should be the base board material in our project?
44. What type of electric power should we use in our project?
45. Why visual signal is required for the driver?
46. Should audio signal also be given for the driver?
47. Who makes locomotives in India?
48. What is a transceiver?
49. Why can't locomotives be slowed down at each level crossing?
50. How will battery of drone get charged?
51. Can we have camera on drone?
52. How will driver know the position of drone?
53. How will distributed horns get power?
54. Can we use solar power for horns?
55. How should we show driver's dashboard?
56. Can we use wired circuit for demonstration?
57. Why is it called a locomotive?
58. Can we use GPS to control the drone?
59. What is GPS?



60. How accurately can we know position through GPS?
61. How do we know location through GPS?
62. How many distributed horns will be required per level crossing?
63. What should the speed of drone in our project?
64. How does a DC motor work?
65. How can we reverse the drone motion?
66. Can we power the distributed horns from the locomotive itself?
67. How can the horns be made rain proof?
68. Will rain affect the wireless operation?
69. Can we make sound to travel in one direction only?
70. What is direct current?
71. How is vibration produced in the locomotive horn?
72. Should we use a microcontroller?
73. What is a microcontroller?
74. How can we sense the production of sound by the horns?
75. How does a microphone sense sound?
76. How is a microcontroller programmed?
77. How can we control the speed of the drone?
78. What is the pitch of the sound?
79. Is there a standard for locomotive horns?
80. What is the acceptable noise level in urban areas?
81. How does an electric speaker work?
82. Can we use flashing lights at level crossing to signal the driver?
83. What do we mean by volume of sound?
84. How can theft of horns and poles have prevented?
85. Is horning required for manned level crossing?
86. What is a DPDT switch?
87. How can we use DPDT switch to reverse the direction of current?
88. What is an SPST switch?
89. What is an LED?
90. Can we use the rails in our project to power the drone?
91. How can we show the reduction of noise?
92. What is a transmitter and a receiver?
93. How wireless signals travel in air?
94. How information is transmitted in wireless communication?
95. What is the voltage of power used in locomotive horns?
96. How should the drone be controlled when track change is required?
97. How track changing is done?
98. How should the drone be controlled in the railway stations?
99. Why can't the horn sound be a single note?
100. How tuning is done for the horns?



SMART BOOK IN RURAL EDUCATION

1. What is Smart Book?
2. What is Mobile App?
3. What is Augmented Reality?
4. What is Virtual Reality?
5. What are the uses of Virtual Reality?
6. What is Virtual Reality and how it is different from Augmented Reality?
7. What is a 3D model?
8. Who invented augmented reality?
9. Since when augmented reality is being used?
10. Why we are using this in education?
11. Where else could we use augmented reality?
12. How do you think about this idea?
13. How did you learn to use Augmented Reality?
14. Which Technology you used to develop this?
15. What are SDKs?
16. Which SDK have you used for developing this project?
17. How much time does it take to develop this app?
18. How it will benefit rural education?
19. Why did you choose to start with NCERT books?
20. Can we Use this app for free?
21. Is the App available in play store?
22. Is the App available in iOS App store?
23. Did anyone help you in this idea?
24. How do you make 3D models?
25. What is SLAM?
26. What is Animation?
27. How To make animation in 3D models?
28. Are all the models developed by you or by someone else as well?
29. How did you manage this along with your college?
30. Is it available for complete NCERT?
31. Do you have a team or you did it alone?
32. In which parts you faced difficulty?
33. How did you get the solutions when you got stuck?
34. Is the project innovative?
35. Is the project scalable?
36. The product is for students or teachers?
37. How to scan a book?
38. Can we scan images with slight variations from the original one?
39. How to change language in the app?
40. Will it work without book?
41. Is your app available for android and ios?
42. Which type of augmented reality are you using?
43. What is marker-based augmented reality?
44. What is marker-less augmented reality?
45. Can we scan anything else except 2D images?
46. How are you planning to scale your project?
47. Who will be your primary users and numbers?
48. What are the problems associated with Augmented Reality?
49. Does the app have simple interface?
50. Are you still working on this project?
51. Is it cheaper than smart Classroom?
52. Is this app affordable for everyone?
53. What are the steps involved in project?
54. Is this project as simple as it looks?
55. Is the app is offline or online?



56. Will you make it as a commercial product?
57. Why teacher will use your app instead of conventional teaching?
58. Will it be useful for teacher as well?
59. How will you produce education content for your app when it will be scaled?
60. Who will monitor about your education content?
61. What can a high school student contribute in your project?
62. Will the app work in all the available phones?
63. How do you track an image using augmented reality?
64. What is natural feature tracking?
65. Which grade of student are you primarily focused on?
66. Where did you get inspiration from to start this project?
67. How much does the project cost?
68. What is the size of your app?
69. Is the technology used in the project open sourced or not?
70. What if I face issues in using this app?
71. What was your strategy when you were developing this project?
72. What is the source of content which you are using?
73. Did you take any professional help while building this project?
74. How will you encourage students to use your app rather than watching videos online?
75. How many smart books are available right now?
76. How much content is there in each smart book?
77. How many people are involved in the development?
78. Are you planning to use this technology beyond mobile apps or smart phones?
79. Can we get the latest available content from the internet?
80. Where else can this idea be used beyond education?
81. Can you make this work without images?
82. What additional features are there in the app?
83. Are there any other similar products available?
84. Can you use any additional device for this project?
85. Are there any performance issues with this app?
86. Why are we focusing to improve rural education with app?
87. What will be the minimum age to use the app?
88. What is average cost for developing app for a single figure?
89. What if I destroy the image and then try to scan the image, will the app work?
90. What if I scan a similar image not the same will the app works?
91. Can I draw the image and then scan image, will the app works?
92. Can we run the application on any mobile device?
93. How is AR being used in different domains?
94. What technologies does AR support?
95. How do we convert 2D figures into 3D models?
96. What is image analytics?
97. How do we choose the language for video playback?
98. Is AR and VR helpful in higher studies?
99. What are the different projects that can be done using AR?
100. How much will be the initial investment for developing an application?



NON-INVASIVE GLUCOMETER USING SALIVA

1. What is glucose?
2. What is glucometer?
3. What is the unit of glucose?
4. What is saliva?
5. How saliva is produced?
6. What is electrochemical diagnostic stick?
7. What is diabetes?
8. What is reason for diabetes?
9. What are the preventative measures of diabetes?
10. What is insulin?
11. How insulin is produced?
12. Where insulin is produced in body?
13. What are the materials required for this experiment?
14. What is sensor?
15. What are the types of sensor?
16. Which type of sensor is used in this experiment?
17. How sensor works?
18. What is UNO?
19. What is arduino?
20. How arduino works?
21. How many terminals do arduino have?
22. What is signal conditioner?
23. What is the use of signal conditioner?
24. What is the output of signal conditioner?
25. What is PCB?
26. What is full form of PCB?
27. What is potentiometer?
28. What is the range of potentiometer?
29. What is source?

30. What are the types of sources?
31. What is voltage?
32. What is unit of voltage?
33. How voltage is generated?
34. What are the types of voltages?
35. What is reference voltage?
36. How reference voltage is decided?
37. What is current?
38. What is unit of current?
39. How current is generated?
40. What is reference current?
41. How reference current is decided?
42. What is single stranded wire?
43. What is multi stranded wire?
44. What is difference between single and multi-stranded wire?
45. What is IC?
46. Which type of IC is used in this experiment?
47. What is LCD?
48. What is use of LCD panel?
49. What is resistor and resistance?
50. What is unit of resistance?
51. What is reference resistor?
52. How value of the reference resistor is used?
53. What is capacitor and capacitance?
54. What is unit of capacitance?
55. What is test strip?
56. What is the use of test strip?
57. What are the components of test strip?
58. What is Ferricyanide?
59. Is Ferricyanide harmful?



60. What is soldering?
61. What is difference between soldering and welding?
62. What is battery?
63. What is use of battery?
64. Where battery is used?
65. On which source battery works?
66. What are the battery ratings used in industry?
67. What is electrode?
68. How many terminals electrode have?
69. What is the number of electrodes used in the test strip?
70. Name the electrodes in the test strips?
71. What is the cost of test strips?
72. What is reference electrode?
73. What is working electrode?
74. What is counter electrode?
75. What is amplifier?
76. What is opamp?
77. What is the function of opamp?
78. What are the types of opamp?
79. What is input to opamp?
80. How many terminals does opamp have?
81. Difference between inverting and non-inverting opamp.
82. What is amplification?
83. Where do amplifier find its application?
84. Explain the concept of ground in electrical field?
85. What is the sample used of this experiment?
86. What is operating range of the device?
87. What is expected glucose level for non-diabetic person before breakfast?
88. What is expected glucose level for non-diabetic person before lunch?
89. What is expected glucose level for non-diabetic person before dinner?
90. What is expected glucose level for non-diabetic person before 1 hour after mill?
91. What is expected glucose level for non-diabetic person before 2 hours after mill?
92. What is expected glucose level for non-diabetic person before midnight?
93. What is conventional method of measuring glucose?
94. What are the advantages of the experiment?
95. What are the disadvantages of the experiment?
96. What are the applications of the experiment?
97. Whether the device is used only for determination of glucose level or it can be used to sense any other disease.
98. What is the technology adopted in this experiment?
99. Is the device is stable?
100. What is the overall cost of the project?



BI-MODE SPY COPTER

1. What are drones or quadcopter?
2. How the drone can be controlled?
3. How remote-control system works?
4. Why sensors are used?
5. What type of sensor is used in quadcopter?
6. What is the function of the digital transmitter?
7. What is the function of the digital receiver?
8. Which type of radio signals are used to transmit instruction?
9. Why the digital receiver is used instead of analogue type receivers?
10. Which modes do the quadcopter works?
11. What would be the design of quadcopter?
12. Which type of batteries is used in quadcopter operation?
13. What is the discharge capacity of LI-PO batteries?
14. What is battery voltage is applied to Bi mode spy copter and why?
15. Which type of propellers is used for bi mode spy copter?
16. Why the rotational direction of propellers is important in quad copter and how to select the rotational direction of each propeller?
17. Which type of electric motors is used in Bi mode spy copter?
18. What is the general specification required for selection of motor for Bi mode spy copter?
19. Which are the components are used in Bi mode spy copter?
20. What is electronic speed controller (ESC)?
21. Why ESC is used in quadcopter?
22. What are feature of ESC used in Bi mode spy copter?
23. How much source voltage is used to run ESC?
24. How much current does ESC provide to motor?
25. How ESC are works?
26. What is the input signal for ESC?
27. How the output of ESC can be controller?
28. What is gyroscope?
29. How does gyroscope work?
30. What is the application of gyroscope in Bi mode spy copter?
31. What is Barometer?
32. Why it is used in quadcopter?
33. What are the propellers?
34. What is the average distance can Bi mode spy copter can travel?
35. How long battery can be operated and factor are affects battery life?
36. Which type of flight controller are used in Bi mode spy copter?
37. Which microprocessor are used in Bi mode spy copter?
38. What is magnetometer?
39. What is GPS?
40. Why GPS is used in Bi mode spy copter?
41. Which type GPS system is used in Bi mode spy copter?
42. How instruction is conveying from transmitter to receiver?
43. How many radio channels are used to control flight mode and what are type of channel are used for control flight mode?



44. How much thrust is produced from each motor and what are the factor which involved in producing thrust?
45. How the dimension of propellers is selected?
46. How the speed of rotation of motor can be controlled?
47. How brushless motor are controlled?
48. What is the Kv ratings of motor indicates?
49. How many turns of coil and poles of armature depend on rotation speed of motor?
50. Why brushless dc motors are used instead of brushed dc motor?
51. What is flight controller?
52. What is the function of flight controller in Bi mode spy copter?
53. Why LI-PO batteries are used?
54. Why microcontroller is used in ESC?
55. Which type microcontroller are used in ESC?
56. What is digital gear servo motors?
57. Why servo motor is used in Bi mode spy copter?
58. How servo motor rotation was controlled?
59. Why digital servo motors are used instead of gear dc motor?
60. What peristaltic pump?
61. How peristaltic pump work?
62. What is the function of peristaltic pump in Bi mode spy copter?
63. What is ballast tank and why it is used in Bi mode spy copter?
64. What is Bi-Directional ESC?
65. What is the function of Bi-Directional esc in Bi mode spy copter?
66. What is the purpose of Bi-Directional ESC in Bi mode spy copter?
67. What is RTH (return to home) mode?
68. Why RTH mode used in Bi mode spy copter?
69. What is GPS assist mode?
70. Why GPS assist mode is used?
71. What is autonomous flight mode?
72. How autonomous flight mode work and what are use of autonomous flight mode?
73. What is throttle, pitch, yaw and roll controls in flight control?
74. What are step to start Bi mode spy copter?
75. What is position hold mode in flight controller?
76. How land mode works in Bi mode spy copter?
77. How water mode works in Bi mode spy copter?
78. What is mode of stabilisation?
79. How voltage parameter is selected for Li-Po to operate in Bi mode spy copter?
80. How voltage of source is directly proportional to speed of motor and also for better altitude range?
81. What is telemetry?
82. Why telemetry is used in Bi mode spy copter?
83. What is maximum range for working of telemetry?
84. Why ESC records the minimum and maximum battery voltage while Calibration?
85. Why Li-Po battery are used instead of Li-Ion, lead battery or alkaline batteries?
86. What are advantages by connecting Li-Po batteries in



series and parallel circuitry?

87. What is viewing angle of spy camera?
88. How video is transmitted from Bi mode spy copter?
89. What are materials are used for body fabrication of Bi mode spy copter?
90. What is PWM signal?
91. Why only PWM signals are used for controlling of ESC?
92. What is GCS (ground control station)?
93. Why GCS is used in Bi mode spy copter?
94. What are uses of GCS?
95. What is frequency of radio signals are used for instruction transmissions from transmitter to receiver?
96. What is the max frequency is required for transmitting AV signals?
97. Which software is used for programming the flight controller?
98. What is main aim of Bi mode spy copter?
99. What are features of Bi mode spy copter?
100. What are advantages of Bi mode spy copter?



REINFORCED INTERLOCKING MUD BRICKS

1. What are bricks?
2. What are they made up of?
3. What are the different types of bricks?
4. What are first class bricks?
5. What are the uses of first class bricks?
6. Why are bricks burnt?
7. What are the types of burnt bricks?
8. What is the minimum crushing strength of 3rd class bricks?
9. In which brick the clay content is minimum?
10. Which bricks are made for jambs of doors and windows?
11. What are fire clay bricks?
12. How is fire clay bricks made?
13. What is fly ash?
14. What is the problem with using fly ash bricks?
15. How are bricks placed?
16. What is English bond?
17. What is Flemish bond?
18. Why these types of bonds are used?
19. Which is strongest among these bonds?
20. What is header and stretcher bond?
21. Can we use bricks for works other than walls?
22. What are the materials used for making bricks?
23. Are there different arrangements for making wall?
24. What are the types of walls can we build using bricks?
25. Can we make bricks of different shapes other than cuboidal?
26. Which is the standard reference for making bricks?
27. What is the cost of one brick?
28. How much strength can a brick give?
29. Are there different methods for making different bricks?
30. Can we use normal mud bricks for pavements?
31. What is masonry?
32. What are masonry units?
33. What is interlocking brick?
34. How interlocking is given for a brick masonry?
35. Why interlocking brick is preferred?
36. What are the benefits of interlocking bricks?
37. What are the features of interlocking bricks?
38. Why hollow blocks are used?
39. Does a hollow block give sufficient strength?
40. What type of bricks is used for multistore buildings?
41. How do we make interlocking bricks?
42. How do we make hollow bricks?
43. Why do we use bricks when we can construct wall from concrete only?
44. Which masonry unit are better concrete blocks or mud blocks?
45. Can we make roof using bricks?
46. What is meant by stabilizing?
47. Why do we use stabilized mud blocks?
48. How SMB's are made?
49. What are stabilizers?
50. What type of stabilizers is used in our project?
51. Why are we using stabilizers in our brick type?
52. What are the benefits of interlocking mud bricks?
53. Why have we provided holes in the bricks?
54. What is longitudinal stability?
55. Why it is required?
56. What is seismic force?
57. Can the brick wall resist earthquake?



58. What are the different tests performed on raw soil before brick is made?
59. How the optimum moisture content is tested?
60. What is water mud ratio required?
61. How do we find the strength of the brick?
62. What are the different tests made on bricks?
63. What is soundness of brick?
64. How is the soundness determined?
65. Why do we need to check the water adsorption in brick?
66. What are the methods of determining water adsorption in brick?
67. How do we check water adsorption in brick?
68. How is hardness of brick tested?
69. How is structure of brick tested?
70. What is the compressive strength of normal brick?
71. How is compressive strength determined?
72. What is UTM?
73. What are the different tests can be performed using UTM?
74. Do we perform tensile and torsional strength test?
75. Why don't we perform tensile and torsional strength test?
76. Why do we perform shear strength test?
77. How is shear strength test performed?
78. What are the loading rates for the compressive strength tests on bricks?
79. How much compressive force should be given to a brick?
80. Weather the bricks are load bearing?
81. Are the bricks water proof?
82. How long will a brick wall or structure last?
83. What is volume of brick?
84. What is the dimension of our brick?
85. What is the diameter of hole provided?
86. What is the lengthy face of brick is called?
87. What is the horizontal face of the brick is called?
88. What are the external corners of wall called?
89. What are the brick half pieces to its length called?
90. Why are bricks only red?
91. Can we make bricks of different colors?
92. What has the effect on color of bricks?
93. Why concrete blocks are made?
94. How do concrete and clay blocks differ?
95. What is the standard size of Indian bricks?
96. How to calculate the requirement of no. of bricks to build a wall?
97. What are the benefits of having masonry structure?
98. What are the types of joints in brick masonry?
99. What is the most common used joint in brick masonry?
100. What are the new technologies that are replacing the use of brick?



ADIHA-PARTNER OF RUBBER FARMER

1. What is Anveshana”?
2. What is Adiha?
3. What are the objectives of Anveshana?
4. What are the objectives of Adiha?
5. What are the visions of Anveshana?
6. What are the visions of Adiha?
7. What are the plans of Anveshana?
8. What is rubber tapping?
9. What are the tools required for tapping?
10. What is Necessity of tapping?
11. What are Uses of tapping?
12. What are Applications of tapping machine?
13. What are micro controllers?
14. What are the uses of micro controllers?
15. What are the applications of micro controllers?
16. What are the procedures of Anveshana?
17. What are the goals of Anveshana?
18. What are the technologies used in tapping?
19. When tapping must be done?
20. How is it useful for the market?
21. What are the objectives of taping machine project?
22. What is block diagram?
23. How is the machine helpful for the rubber growers?
24. What is low powered launch pad?
25. What is solar panel?
26. What is the use of the solar panel?
27. What is GSM module?
28. What is Use of GSM module?
29. How can it be notified to the farmers?
30. What is the technology used for the connection?
31. What type of battery is being used?
32. How can the cell phone be connected to the tapping machine?
33. How is liquid level sensed in the container?
34. What type of sensors is used?
35. What is a motor?
36. What are the types of the motor?
37. How does a motor work?
38. What is stepper motor?
39. How is latex removed from the tree?
40. When is the tree ready to for tapping?
41. At what time must it be tapped?
42. What is central controlling system?
43. What is the use of central controlling system?
44. What are the components used for the project?
45. What type of micro controllers is used?
46. What is RF module?
47. What is latex level sensor?
48. What is the bark of the tree?
49. What is tapping rig?
50. What is gear?
51. Where is gear used in the machine?
52. How is the gear used in the machine?
53. What is the role of GSM module in the system?
54. How is the tapping operation triggered?
55. How the circular traversing done by the machine?
56. What are the measurements for cutting the bark?
57. What are the limitations of the machine?
58. What are the benefits of the machine?
59. What disadvantages does it overcome?



60. What is the security status of this machine?
61. How is security provided?
62. What is the technology used for providing security?
63. How efficient is this machine as compared to the present machine scenarios?
64. What is the problem that the machine overcomes?
65. What is the impact of the proposed solution?
66. What is the feasibility of this machine?
67. How much power does this machine consume?
68. How does the machine contribute to the Indian economy?
69. What are the present scenarios of the rubber farming?
70. What position does India stand in the world in the field of rubber production?
71. Who is the largest producer of rubber?
72. Who is the largest consumer of rubber?
73. What are the benefits of the project to the society?
74. What is the basic scientific/engineering/design concept involved in the project?
75. What is the total budget of the project?
76. What is the total budget in installing the setup?
77. How many rubber trees can be grown in an acre?
78. What is the profit for an acre in a year?
79. What is the financial status of the rubber marketers?
80. What is the amount of latex produced from a tree?
81. What is the labour charge for a tree?
82. What is the preferable time for tapping?
83. What is the approximate initial investment required?
84. What is the maintenance cost?
85. What kind of land is required for rubber cultivation?
86. Which is the season to get more yield?
87. What is a stimulant?
88. What is overflow of latex?
89. What is underflow of latex?
90. How is overflow of latex overcome?
91. How underflow of latex is overcome?
92. How much time does a plantation require to start yielding the latex/
93. What are the height requirements of the tree to start tapping?
94. What are the girth requirements of the tree to start tapping?
95. What is the procedure of tapping manually?
96. What are the difficulties faced while tapping manually?
97. How can it be overcome by the tapping machine?
98. What are the different types of tapping?
99. What factors are considered under maintenance?
100. How can we increase the yield of the rubber?



ELECTROSTATIC PRECIPITATOR

1. What is ESP?
1. How it is constructed?
2. What is the principle of working?
3. What is corona discharge?
4. What are advantages of ESP?
5. What are the disadvantages of ESP?
6. What is the use of high voltage dc power supply?
7. What are the components used?
8. Is it possible to implement in large scale?
9. How it is used for the first-time corona discharge to remove particles from an aerosol?
10. Name different types of ESP's?
11. What is the disadvantage of dc power supply?
12. What is the use of earthing?
13. Define particle charging?
14. What are the different types based on method of charging?
15. What are the different types based on temperature of operation?
16. What are the different types based on particle removal from collection surfaces?
17. What is AC?
18. What is DC?
19. What is use of AC?
20. What is use of DC?
21. What is earthing?
22. What is the use of electrodes?
23. Explain the effect of temperature on ESP's?
24. Explain the procedure of implementation of ESP in industries?
25. What are effects of ESP on environment?
26. Define ionization?
27. What is fly back transformer?
28. Define current?
29. What is the SI unit of current?
30. Define voltage?
31. What is the SI unit of voltage?
32. Define electrostatics?
33. What is transformer?
34. What is resistor?
35. What is resistance?
36. Mention SI unit of resistance?
37. What is electronics?
38. How to convert AC to DC?
39. What is multiplier?
40. Mention the types of transformer?
41. What is the use of fly back transformer?
42. What is electrode?
43. What is cathode?
44. What is anode?
45. What is electron?
46. What is neutron?
47. Why smoke will not come out from aluminium foil?



48. What are the methods for providing earthing?
49. What is the use of multiplier in this experiment?
50. What is proton?
51. What is diode?
52. Mention the application of diode?
53. What is energy?
54. How do we define energy?
55. What is the unit of energy?
56. What are the types of energy?
57. What is rectifier?
58. Define efficiency of rectifier?
59. Define ripple factor of rectifier?
60. Name the element which is good conductor?
61. What is precipitator?
62. What is precipitant?
63. What is diffusion?
64. What is osmosis?
65. What is smoke?
66. What is fog?
67. What is smog?
68. Why we can't use AC in this experiment?
69. Which is more dangerous either AC or DC?
70. What are active sources?
71. What are passive sources?
72. What is capacitor?
73. What is capacitance?
74. What is unit of capacitance?
75. Why aluminium foil is used?
76. What constitutes the smoke?
77. What are the gases absorbed by ESP?
78. What is meant by back corona?
79. What are the features of ESP?
80. Define wet type ESP?
81. Define dry type ESP?
82. What is benefit of ESP on the environment?
83. What are gaseous pollutants removed by ESP?
84. Is it possible to use AC in this experiment?
85. Why we need very high DC voltage in this experiment?
86. What is electrostatics?
87. What are pollutants?
88. Define pollution?
89. What is meant by air pollution?
90. How it is controlled?
91. Mention the causes for air pollution?
92. What are the different types of pollutants?
93. What are the different types of pollution?
94. How these pollutions are controlled?
95. What is meant by water pollution?
96. What is meant by noise pollution?
97. What is meant by soil pollution?
98. What is the role of human beings in pollution of environment?
99. ESP can control air pollution?



REGENERATIVE BRAKING SYSTEM

1. What is meant by regenerative braking system?
2. During regenerative braking which are the energy conversion takes place?
3. What are the factors effecting the regenerative braking in a vehicle?
4. What are properties of a regenerative braking system?
5. What is the need for regenerative braking system?
6. What is percentage of energy dissipated in metropolitan city due to frequent braking?
7. What are the advantages of regenerative braking system?
8. What are the disadvantages of regenerative braking system?
9. What is the required vehicle performance of regenerative braking system?
10. Where the frequent use of regenerative braking system is taking place?
11. Why the regenerative braking system could not be placed in IC engines?
12. What are the additional equipment need to store and convert the regenerative braking system?
13. Which are the manufacturers involved regenerative braking system?
14. What are the types of regenerative braking system?
15. Which are application fields of regenerative braking system?
16. What is the principle of regenerative braking system?
17. What are the apparatus used in regenerative braking system model?
18. What are the experimental effects of regenerative braking system?
19. What is the aim of the regenerative braking system?
20. Smart what are the factors should be provided to automate regenerative braking system?
21. What are the effects of regenerative braking system?
22. What is the efficiency level increased if the regenerative braking system is taken into account in the vehicle?
23. Is regenerative braking system being efficient? if efficient give reason
24. On which basis does the regenerative braking system based?
25. Can regenerative braking system be applicable for lower RPM vehicles?
26. What is meant by brake power?
27. What are the types of braking power?
28. Which are the types of braking systems available?
29. What is meant by indicated power?
30. What is the formula to find the brake power?
31. What is the formula to find indicated power?
32. Define brake thermal efficiency?
33. What is the definition of friction power?
34. What is the difference between brake power and indicated power?
35. What is Morse test?
36. What is the intention behind the carrying the Morse test?
37. How indicated power is measured in engine?
38. What is the formula to find the brake thermal efficiency?
39. What is meant by brake mean effective pressure?
40. What is the formula to find the brake mean effective pressure?
41. What is meant by brake specific fuel consumption?



42. What is brake thermal efficiency and indicated thermal efficiency?
43. What is the formula to find the brake power in 4 stroke-engines?
44. What is indicated mean effective pressure?
45. What is meant by friction power?
46. What is the formula to find the friction power?
47. What is mean effective pressure of an engine?
48. What are the types of mean effective pressure?
49. What is meant by indicated pressure?
50. What is the difference between IP and MEP
51. What do you mean by regenerative braking system?
52. On which year this theory came into existence?
53. What are parts it involves?
54. Does the efficiency level increases by using regenerative braking system?
55. What are the applications of regenerative braking system?
56. What is the function of bearing?
57. What is the function of ammeter?
58. How does this system work?
59. Can we store the power developed by the system?
60. What is battery?
61. Why battery is used?
62. Is this project innovative?
63. What components do this system consists?
64. What are the drawbacks of this system?
65. Which material does the brake drum made up of?
66. Why friction lining is used?
67. Why the aluminium brake drum is used?
68. Is this system eco-friendly?
69. Where did you get the idea from?
70. Which material is used as friction lining?
71. Why rubber tires are used as friction lining?
72. On which principle this system works?
73. What should be the minimum range of speed to generate the power?
74. For what reason you select this project?
75. Is this system portable?
76. On which principle does the geared motor works?
77. What is welding?
78. For what purpose welding is used?
79. Is this model already exists?
80. Why geared motor is used?
81. What are the limitations of regenerative braking system?
82. What are the electronic components used in this projects?
83. What is the rpm of geared motor?
84. What is a linking mechanism?
85. What is the use of linking mechanisms?
86. What is the use of shaft?
87. Can we use dynamo instead of using geared motor?
88. Which material is used in linking mechanisms?
89. What do you mean by braking power?
90. What do mean by indicated power?
91. Can this project used for long time period?
92. Is it possible to replace rubber tires by any other material?
93. Which material is used to weld this model?
94. How different is it from different brake?
95. What is the difference between normal brake and regenerative brake?



96. Why is it better than normal brakes?
97. Is there any place where we can apply this method?
98. What is the alternative method if regenerative braking system fails?
99. What is fabrication?
100. What are the disadvantages of regenerative braking system?



NANO ENGINEERED WATER

1. What is the aim of our project?
2. What are bacteria?
3. What is the size of bacteria?
4. What are the different measurements used?
5. What is carbon?
6. The Amount of carbon nano particles which can be used for 1m^3 of volume cube?
7. What is ion?
8. What is filtration?
9. Why water should be filtered?
10. What are impurities/ pollutants?
11. What are the impurities present in water?
12. What filter do?
13. Why pure water is required?
14. What are inorganic impurities?
15. What are the inorganic impurities present in water?
16. What is parameter?
17. What are nutrients?
18. What is room temperature?
19. What is semi-permeable?
20. What is Bio-chemical Oxygen Demand?
21. What is Chemical Oxygen Demand?
22. Why oxygen is present in the parameter BOD and COD?
23. Why HNO_3 is not considered?
24. Why NO_2 is dangerous to human?
25. Why HNO_3 is stored in brown bottle?
26. Why weak acid are not considered for BOD test?
27. Why BOD and COD is conducted?
28. Why oxygen required for organic and inorganic?
29. What is grey water?
30. What is dark water?
31. What are Nano particles?
32. Why are we considering Nano-particles?
33. What are Carbon Nano Tubes?
34. What are different types of CNT's?
35. Why carbon as Nano particle?
36. Why is it difficult to develop Single Walled CNTs?
37. Why Multi Walled CNT's are commonly produced?
38. Which are the different metal oxides used?
39. How to bind the carbon?
40. What are the binding material used in CNT and name them?
41. What is membrane?
42. What is semi permeable membrane?
43. Why we add acid?
44. What are the different acids used in oxidizing in BOD and COD?
45. What is the function and application of semi-permeable membrane?
46. How to prepare CNT's?
47. What is doping?
48. What is preliminary treatment?
49. What is procedure for preliminary treatment?
50. What are the parameters of water?
51. What are the different tests for water?
52. What is ppm?
53. What is barometer?
54. What is mineral water?
55. What is distilled water?
56. What is demand?
57. What happens if impurities are more?



58. What are ill effects of fluorides?
59. Which are the diseases caused if impurities are more?
60. What happens if iodine is added in water?
61. What is salt water?
62. What is by product?
63. What is fraction distillation?
64. What is thermal decomposition?
65. Why we are doing this project?
66. Why river water?
67. What is RO?
68. What is desalination?
69. Why BOD is more in domestic?
70. Why COD is more in industrial waste?
71. What are semi-conductors?
72. Why silicon is used in electronics?
73. What are heavy metals?
74. What impurities we have to remove from milk industries waste?
75. Why mercury is used in thermometer?
76. Can we see the Nano particle by naked eye?
77. What are the diseases caused due to water?
78. The Reaction formation of rust(Fe_2O_3)
79. What is the importance of the project?
80. What are the steps involved in water filtration?
81. Which are the different wastes produced by industries?
82. Which are the industries producing waste?
83. Where all the waste will generate?
84. Which are the waste which are difficult to remove are?
85. What are organic solvents?
86. How many times the Nano is less than the microscope?
87. The difference between the RO and Nanotechnology?
88. What is micro?
89. What are the different sources used in water filter?
90. What are the parameters of drinking water?
91. What is the range of different parameters for drinking water and others?
92. What is BIS specification?
93. Why preliminary treatment is done?
94. How many parameters are there for testing drinking water?
95. Why HNO_3 is not used in oxidizing?
96. What are organic impurities present in water?
97. Where the semi-conductors are used?
98. Which are the industries where removal of waste is difficult?
99. What is the cost of the project?
100. What is the use of our project to the society?



WIRELESS SENSOR NETWORK (WSN) FOR WATER POLLUTION IN LAKES AND RIVERS

1. What causes pollution?
2. Which of the following substances is harmful to water?
3. What type of water pollution can occur when sulphur-dioxide gets into the Earth's atmosphere?
4. What can happen to fish when there isn't enough oxygen in the water?
5. How can you help prevent water pollution?
6. Around how much of the Earth's water is fresh water?
7. How is water pollution detected?
8. What can water pollution cause?
9. What is the order decided by a processor or the CPU of a controller to execute an instruction?
10. How are micro controllers classified on the basis of internal bus width?
11. How is the performance and the computer capability affected by increasing its internal bus width?
12. Abbreviate CISC and RISC?
13. Give the names of the buses present in a controller for transferring data from one place to another?
14. What is the file extension that is loaded in a microcontroller for executing any instruction?
15. What are the most appropriate criterion for choosing the right micro controller of our choice?
16. Why micro controllers are not called general purpose devices?
17. How many types of architectures are available, for designing a device that is able to work on its own?
18. Which architecture is followed by general purpose microprocessors?
19. What are the effects of water pollution for young generation?
20. What are the measures to prevent pollution?
21. Which IC will be used?
22. What principle is used in ADC?
23. What is simulation?
24. What principle is used in proposed project?
25. Which software is used?
26. How many pins are utilised?
27. What is GSM module?
28. What is function of GSM module?
29. What is analog signal?
30. How will analog signal get converted to digital signal?
31. Is the Arduino microcontroller?
32. What are the different types of microcontrollers?
33. How microcontrollers work?
34. Where will be microcontroller used?
35. Give some examples of microcontrollers.
36. What is Arduino?
37. What language does the Arduino use?
38. What is zigbee?
39. What is turbidity?
40. What is conductivity?
41. What is PH?
42. What is memory?
43. What is digital signal?
44. How does the Arduino work?
45. What is physical range of Zigbee?
46. What is international standard of zigbee?
47. What is the difference between zigbee and Bluetooth?



48. How will zigbee work?
49. What are the applications of zigbee?
50. How can be GSM module differentiated?
51. What are the tasks performed by GSM module?
52. What is AT command?
53. Which part of AT is given as command to GSM module?
54. What are the types of GSM module?
55. Is Arduino based on C or C++?
56. What is Arduino uno?
57. How many digital and analog inputs are present in Arduino uno?
58. What is frequency of quartz crystal present in Arduino uno?
59. How do you code Arduino?
60. What is the ATmega328?
61. How can the Arduino uno be powered?
62. What is the dc current per I/O pin?
63. What is ph range of acidic water?
64. What is ph range for basic water?
65. What is threshold limit for contaminant water?
66. Why water pollution is bad?
67. What are the types of water pollution?
68. How will water pollution effect environment?
69. How to prevent water pollution from industries?
70. How does rain water get polluted?
71. Which architecture provides separate buses for program and data memory?
72. Is an assembly language a high level language?
73. What is difference between microprocessor and microcontroller?
74. What are the various types of memories used in microcontroller/microprocessor?
75. What is meant by Flip-flop?
76. Which register usually store the output generated by ALU in several arithmetic and logical operations?
77. Which operations are performed by stack pointer during its incremental phase?
78. What kind of instructions usually affects the program counter?
79. How does the processor respond to an occurrence of the interrupt?
80. What is programming language?
81. What is assembly level language?
82. What is high level language?
83. How does processor respond to an occurrence of interrupts?
84. What kind of instructions usually affects the program counter?
85. What is water pollution?
86. What is difference between surface water and ground-water?
87. What is fresh water?
88. What are the sources of water?
89. What does ground water consists of?
90. What are the sources of water pollution?
91. How does air pollution affect water pollution?
92. How does fertilizer affect water pollution?
93. How does death of person affect water pollution?
94. How does heat affect water pollution?
95. In India how much rechargeable ground water resource are available?
96. How many quantity of surface water per year is available?



97. Mention some of the water prevention acts.
98. How to monitor water quality?
99. What are the total usable water resources of the country?
100. Of the usable water resources what is the share of surface water and ground water?



HYBRID ADSORPTION COOLING

1. What is adsorption?
2. What is refrigeration?
3. What is air conditioning?
4. Difference between adsorption and refrigeration?
5. What is ice making?
6. What are the cooling requirements?
7. What is vapor compression system?
8. What is vapor absorption system?
9. What is vapor adsorption system?
10. What is evaporator?
11. What is condenser?
12. What is an adsorber?
13. What is a pump?
14. What are pressure gauges?
15. What is silica gel?
16. What is silica bed?
17. What is thermocouple?
18. What is boiling temperature of water?
19. What is the freezing temperature of water?
20. What is refrigerant?
21. What is COP?
22. What are the types of adsorptions?
23. Why are copper tubes used?
24. What is vapor compression cycle?
25. How much electricity does the system consume?
26. What is the power of the motor?
27. What is the double bed?
28. What are differences between single bed and double bed?
29. What is the heat source?
30. What are the temperature considerations?
31. What is vacuum pump?
32. What is zeolite?
33. How is it maintained?
34. What is the probable life of this system?
35. What is corrosion?
36. What are heat exchangers?
37. What is a collector?
38. What are the types of heat exchangers?
39. What are the types of collectors?
40. What is photovoltaic cell?
41. What is adsorbate?
42. What is the conversion efficiency?
43. What is heat inherent?
44. How to select the adsorbent?
45. What is thermal stability?
46. What is abrasion resistance?
47. What is capacity if adsorption?
48. What is desorption?
49. What is Van Der Waals force?
50. What is valence force?
51. What are molecules?
52. What are surface molecules?
53. What is activated carbon?
54. What is solar heating system?
55. What is oil contamination?
56. What is an impellor?
57. What is deionized water?
58. What are valves?
59. What are coupling?
60. What is a refrigerant flask?
61. What are bypass valves?



62. What are the types of flow?
63. What is the effect of adsorption timing?
64. What is cooling effect?
65. What are the advantages of this system?
66. What are the limitations of this system?
67. What is Ashrae?
68. Why is adsorber surface black in color?
69. What is power?
70. What is the difference between HCFC and CFC?
71. What is condenser?
72. What is mechanical compressor?
73. What is intercooler?
74. What is expansion valve?
75. What is heat storage?
76. What is rate of cooling tower?
77. What is auxiliary heating?
78. What is adsorption chiller?
79. What is a fluid?
80. What are the types of pumps?
81. What is regenerative heater?
82. What is moisture?
83. What is dehumidification?
84. Which are the desiccant materials?
85. What is ambient temperature?
86. What is generator?
87. What is a prototype?
88. Which are the renewable energy sources?
89. Which are the non-renewable energy sources?
90. What is domestic application of hybrid adsorption system?
91. What is the amount of cooling effect achieved?
92. How does adsorbent bed regenerate?
93. Why is the dryness of adsorbent bed necessary?
94. What is an evacuated tube?
95. What is a circulating pump?
96. What is the storage capacity of the tank?
97. How does pressure gauge work?
98. How does a sunshine recorder work?
99. What is the fabrication process for this system?
100. What is a sorption chamber?



WIND LENS

1. What is Energy?
2. What are the types of Energy?
3. What is the SI unit of Energy?
4. State the law of conservation of Energy?
5. What is the source of Energy?
6. What is Renewable energy?
7. What are the types of Renewable energy?
8. Which Renewable energy is most economic?
9. What is Non-Renewable energy?
10. What are the types of Non-Renewable energy?
11. Which Non-Renewable energy is most economic?
12. What are the Advantages of Renewable energy?
13. What are the Disadvantages of Renewable energy?
14. What are the Advantages of Non-Renewable energy?
15. What are the Disadvantages of Non-Renewable energy?
16. What is Voltage?
17. What is current?
18. What is resistor?
19. What is Ohm's law?
20. What is capacitance?
21. What is capacitor?
22. What is inductor?
23. What is inductance?
24. What is conductor?
25. What is conductance?
26. What is the unit of resistor?
27. What is the unit of inductor?
28. What is the unit of capacitor?
29. What is the voltage usually supplied to houses?
30. What is Electricity?
31. How can we produce electricity?
32. What is hydroelectric power plant?
33. How is electricity produced in hydroelectric plant?
34. What is thermal power plant?
35. How is electricity produced in thermal power plant?
36. What is Nuclear power plant?
37. How is electricity produced in nuclear power plant?
38. What is geothermal energy?
39. How can we produce electricity from geothermal energy?
40. What is a motor?
41. What are the different parts of motor?
42. What is rotor?
43. What is stator?
44. What is a shaft?
45. What are windings?
46. What kind of wire is used to make windings?
47. What are different kinds of wire?
48. What are the different kinds of motor?
49. What kind of motor do we use in our home?
50. What do you mean by characteristics of motor?
51. How fast does motor run?
52. What are the different methods to control a motor?
53. What materials are used to make motor?
54. What do you mean by rating of a motor?
55. What is single phase supply?
56. What is three phase supply?
57. What kind of supply do we get in our home?
58. Why don't we get DC supply to our home?
59. What is the weight of a motor?
60. What is torque?
61. What is generator?



62. Can all type of motor act as generator?
63. What are the kinds of generators?
64. What is electrical grid?
65. What is wind turbine?
66. How electricity is generated in wind turbine?
67. What are the types of wind turbine?
68. What are the advantages of wind turbine?
69. What are the disadvantages of wind turbine?
70. What is wind power density?
71. What is betz's law?
72. What is value of betz's limit?
73. What is the maximum theoretical output of wind turbine?
74. What are the components of wind turbine?
75. What is gear box?
76. What is the use of gear box in wind turbine?
77. Why 3 blade wind turbine is most popular?
78. Name some of specification to design wind turbine blade?
79. Which material is used in wind blades?
80. What is yaw mechanism?
81. What is anemometer?
82. What is NREL class?
83. How NREL class depends on WPD?
84. Name some popular software for wind turbine simulation?
85. What is global investment on wind energy in 2017?
86. What is Wind lens?
87. What is brim?
88. What is diffuser?
89. What is the Principle of wind lens?
90. What is the Mechanism of wind lens?
91. What are Wind Lens Advantages?
92. What is wind Lens Disadvantages?
93. What are all the On-going Projects on wind lens?
94. What are the Future Plans on wind lens?
95. What are all the Components used in prototype of wind lens?
96. What is the theoretical increase in power generation in wind lens?
97. What is the practical percentage increase in case of wind lens?
98. Which material is used to make wind diffuser?
99. What is the maximum power generated by wind energy in India?
100. Whether wind diffuser can be installed to present wind turbine?



ADVANCED CONTROL OF INDUCTION MOTOR

1. Who invented induction motor?
2. What is an induction motor?
3. Why it is so important to control motors?
4. What are the uses of motor?
5. How do motor works?
6. Who is Michael Faraday?
7. What are the laws of Faraday?
8. What are the applications of motors?
9. What are the different parts of motor?
10. What is rotor?
11. What is stator?
12. What is a shaft?
13. What are windings?
14. What kind of wire used to make windings?
15. What is different kind of wire?
16. What are the different kinds of motor?
17. What kind of motor do we use in our home?
18. What do you mean by characteristics of motor?
19. How fast does motor run?
20. What are the different methods to control a motor?
21. What materials are used to make motor?
22. What do you mean by rating of a motor?
23. What is single phase supply?
24. What is three phase supply?
25. What kind of supply do we get in our home?
26. Why don't we get DC supply to our home?
27. What is the weight of a motor?
28. What is torque?
29. What is generator?
30. Can all type of motor act as generator?
31. What are the other kinds of generators?
32. In What kind of environment can a motor run?
33. Why heat is produced in a motor?
34. What happens if heat is produced in motor?
35. How does it affect the performance of motor?
36. How to overcome heat produced In motor?
37. What are the methods to reduce heat produced in motor?
38. Does heat produced changes the speed of motor?
39. What is the research on motors?
40. What are the different failures in motor?
41. What are causes of failures?
42. How to overcome this failure?
43. Are there any precautions to ensure while starting a motor?
44. What precautions to be taken while running a motor?
45. How to protect motor from environmental conditions?
46. How to ensure safe usage of motor?
47. Who manufactures motors in India?
48. How much importance is motor in industries?
49. How to protect motor from rusting?
50. What is the life span of a motor?
51. What is software?
52. Why software's are used?
53. In which field software's are used?
54. What is programming?
55. To what extinct software help in our daily use?
56. Who creates the software's?
57. What is Node Red
58. Why is it useful in this project?



59. What is Internet of things?
60. What are the applications of IOT?
61. What is the importance of IOT?
62. Where is this internet of things used in our daily lives?
63. Why is smart phone used in this project?
64. How is command sent to motor using smartphone?
65. How Android application is developed?
66. What is MATLAB?
67. Why is MATLAB used?
68. Who uses MATLAB?
69. What is simulation?
70. How do you simulate a motor in MATLAB?
71. What is micro controller?
72. What is an Arduino?
73. How Arduino is useful in this project?
74. Which language is used for developing the software?
75. What is control system?
76. What are sensors?
77. What kind of sensors is used in this project?
78. How data is sent or received?
79. What is a server?
80. What is a protocol?
81. What are different ways to send information to server?
82. What is machine learning?
83. What is algorithm?
84. What are the applications of machine learning?
85. How does it prediction information?
86. How to train a computer with machine learning?
87. What is Neural Networks?
88. What are the advantages of using machine learning?
89. What is the research on machine learning?
90. Why is machine learning gaining so much importance now a day?
91. What is Power Electronics?
92. What are the applications of Power Electronics?
93. Why Power electronics circuits are used in this project?
94. Where can this project be implemented?
95. How does this project help farmers?
96. How much does it cost for doing this project?
97. Is this project easy to handle?
98. What are the steps involved in project?
99. Is the project Innovative?
100. What are the disadvantages of this project?



DRIVER EYE

1. What is the aim of this project?
2. What is meant by the traffic sign boards?
3. What is the Need of signboards?
4. Which Types of signboard we are using?
5. How accidents can be avoided using signboards?
6. How we are identifying the signboard?
7. Which all Hardware part needed to detect the signboard?
8. Difference between microprocessor and microcontroller?
9. what are the uses of microprocessor?
10. what are the uses of microcontroller?
11. Which microcontroller we are using?
12. What are the specifications of our microcontroller?
13. What is arduino?
14. For what this pin are using?
15. What is AC?
16. What is DC?
17. How to convert AC to DC?
18. What will be the input voltage?
19. What will be the output voltage?
20. What is image processing?
21. Algorithm used for image processing?
22. Which software we are using for image processing?
23. What are steps for image processing?
24. What is called RGB?
25. What is convolution?
26. What is bridge rectifier?
27. What are the uses of bridge rectifier?
28. What is sift algorithm?
29. What is surf algorithm?
30. Difference between sift and surf algorithm?
31. What is octave?
32. What is Gaussian filter?
33. Necessity of Feature detection?
34. What is the need of features?
35. How we selecting the features?
36. Need of blurring the image?
37. Formula for blurring an image?
38. What is DOG?
39. What is laplacian Gaussian?
40. What is keypoint?
41. What is DOH?
42. What is baud rate?
43. What is the difference between serial and parallel communication?
44. How RGB image is converted into Black & White image?
45. What is normalization?
46. What is database?
47. How we compare the captured image with the database?
48. If more than one image in the database is matched with the captured image how we detect the correct one?
49. How many feature points for an image?
50. What is edge detection?
51. What is image acquisition?
52. What is DAC?
53. Need of voltage regulator?
54. What is integral image?
55. Steps for Feature Matching?
56. What is image sampling?
57. What is quantization?
58. What is dynamic range?



59. What is image enhancement?
60. What is compression?
61. What is JPEG?
62. What is open source hardware?
63. Advantages of arduino?
64. What is the arduino language?
65. Which IC is used for arduino?
66. What is thresholding?
67. What is MatLab?
- 68.** Explain MatLab API?
69. What are the types of loops does Matlab provides?
70. Which all are the operators that MatLab allows?
71. What is a matrix?
72. What is the order of a matrix?
73. What is a vector?
74. Why is this process 'digital image processing'? What is digital about it?
75. What are the types of array?
76. What is multidimensional array?
77. Can Multi-dimensional arrays supported in MATLAB?
78. Explain MatLab applications?
79. What is pixel?
80. What is first order and second order operators?
81. From where we are getting the alert sound?
82. What is meant by Built-in functions?
83. What are uses of Command Window in MatLab?
84. What is meant by variables?
85. What is debugging?
86. What is the use of flush out command in Matlab?
87. Which is the smallest unit of image?
88. How we are controlling the speed in the vehicle?
89. For what the tts command is used?
90. What is called delay?
91. What is the extension of the matlab file?
92. How we can identify the change in the speed?
93. Whether we can use this project in all kinds of vehicles?
94. Where the camera is placed?
95. How the project helps in the traffic management?
96. Is there any project similar to this?
97. Is the cost of this device is higher than the existing device?
98. What is an LCD display?
99. What are the limitations of this project?
100. Does the output result in the LCD display?



MOVABLE ROAD DIVIDER FOR ORGANISED VEHICULAR TRAFFIC CONTROL WITH MONITORING OVER IOT

1. What is traffic?
2. What is a sensor?
3. What is IR Sensor?
4. List few things what u observes on road?
5. List few heavy vehicles on road which you observe?
6. What do know about road divider?
7. Name the different colours of traffic lights and what do they mean?
8. Why do we use traffic lights?
9. What is crystal?
10. Why crystal oscillator is used?
11. Why capacitor is used in crystal oscillator?
12. What is dc motors?
13. What is the principle behind working of dc motor?
14. What is "IOT"?
15. What are the uses of "IOT"?
16. What is embedded system?
17. What are the uses of H-bridge?
18. What is H-BRIDGE?
19. What is a diode?
20. What is the symbol of Schottky Diode?
21. Write about the working of schottky diode?
22. Applications of schottky diode?
23. What is a microcontroller?
24. List some input output devices?
25. What is the aim of our project?
26. To solve a problem, we are making our project? What is that problem?
27. What is a LCD display?
28. What is the role of a power supply section in a circuit?
29. What is AT89S52?
30. Why should we save fuel for better environment and health?
31. What is engineering?
32. What is resistor?
33. What are the uses of a resistor?
34. What is a relay?
35. Applications of relay?
36. What is the function of the relay?
37. What are the advantages of movable road divider?
38. In what kind of business purpose it can be used for?
39. What are the benefits of this project?
40. What is the general statistics of road accident in India?
41. To reduce road accident what can be done?
42. Give one very important use of organized traffic control?
43. India is having second largest road. Justify?
44. What is technology?
45. What are the active components?
46. Give few examples of active components?
47. Give Explanation and Example for active components?
48. What is Passive Components?
49. Is there any other Components do we need learn?
50. Give Explanation and Example for passive components?
51. What do you mean by traffic?
52. Which electronic thing can sense?
53. Define IR Sensor?
54. List few things what u observes on road?



55. List few heavy vehicles on road?
56. Why a road divider is required?
57. Name the different colours of traffic 58. What is the use of traffic lights?
59. Define crystal?
60. Why oscillator is used?
61. Why capacitor is used with oscillator?
62. What do you know about dc motors?
63. What is the principle behind working of dc motor?
64. What is "IOT"?
65. What are the uses of "IOT"?
67. What are the uses of H-bridge?
68. Draw the basic circuit of H-BRIDGE?
69. Explain the working of H Bridge?
70. What is the main function of a diode?
71. What is the symbol of Schottky Diode?
72. Write about the working of schottky diode?
73. Applications of schottky diode?
74. What is a microcontroller?
75. List some input output devices?
76. What is the goal of our project?
77. Where exactly our project can be made use of?
78. Say few words on a LCD display?
79. Explain the need of power supply in any electronic circuit?
80. What is the part no of the microcontroller, which is made use in our project?
81. Is saving fuel important if yes why?
82. Define engineering?
83. Define resistor?
84. What are the uses of a resistor?
85. Define a relay?
86. Applications of relay?
87. What is the function of the relay?
88. What are the advantages of movable road divider?
89. In what kind of business purpose it can be used for?
90. What are the advantages of this project?
91. What is the general statistics of road accident in India?
92. Suggest some idea to reduce road accident?
93. Give one very important application of organized traffic control?
94. India is having second largest road. Justify?
95. What is technology?
96. What is the active component?
97. Give few examples of active components?
98. Give Explanation and Example for active components?
99. Define Passive Components?
100. Give few examples of passive components?



BIOWASTE INTO ACTIVATED CHARCOAL

1. What is charcoal?
2. What is activated charcoal?
3. What are types of activated charcoal?
4. What is powdered activated charcoal?
5. What is granular activated charcoal?
6. What is difference between granular and powered activated charcoal?
7. How efficient activated charcoal than charcoal?
8. What is main property of charcoal is used for application?
9. What is absorption?
10. What is adsorption?
11. What is desorption?
12. What is difference between absorption and adsorption?
13. What is difference between adsorption and de-adsorption?
14. What is difference between absorption and de-adsorption?
15. What is mechanism of adsorption in activated charcoal?
16. What are the applications of activated charcoal?
17. What does the activated charcoal removes from the waste water?
18. What are two mechanisms in preparing activated charcoal?
19. Explain the physical mechanism of preparing of activated charcoal?
20. Explain the chemical mechanism of preparing of activated charcoal?
21. What are the properties of charcoal?
22. What is porosity of charcoal?
23. How influence the conductivity and density on charcoal?
24. Define pyrolysis?
25. Define deodorization?
26. Define decolourisation?
27. Define waste water treatment?
28. Why there is need of waste water management?
29. Name some techniques or method for waste water treatment?
30. What are super capacitors?
31. Name one application of activated charcoal in medicinal use?
32. Explain the applications of activated charcoal in industrial use?
33. Explain the applications of activated charcoal in environmental use?
34. Explain the applications of activated charcoal in agricultural use?
35. What is role of activated charcoal in the recrystallization?
36. How does charcoal make water clean?
37. What is the effect of impurities on melting point?
38. How does carbon remove odour?
39. What is carbon filtration?
40. How does adsorption occur?
41. What is adsorption chromatography?
42. What are techniques to study adsorption?
43. Why it is known as the universal absorbent?
44. Explain the adsorption in solids?
45. Explain the adsorption in liquids?
46. Is the adsorption is spontaneous reaction? Explain how?
47. Define the physisorption?
48. How influence the temperature on physisorption?



49. Define the chemisorption?
50. How does the temperature effects on chemisorption?
51. Does the surface area and pressure affect the adsorption?
52. Why does the activated charcoal used in aquarium fish tank as pneumatic biochemical activated charcoal?
53. Does the activated charcoal used in reverse osmosis water filter?
54. What are the side effects of activated charcoal powder?
55. How activated charcoal used in gas purification?
56. What is waste?
57. What are the types of waste?
58. What is biodegradable waste?
59. What is non-biodegradable waste?
60. What is bio-waste?
61. What is the resources recovery from waste?
62. What are the bio-wastes used in our project?
63. Which chemical is used in preparation of our project?
64. What is the method used to prepare activated charcoal?
65. What is eco-friendly?
66. What is pollutant? Give some examples.
67. What is procedure used in preparing activated charcoal?
68. What is the adhesion?
69. Does metal react with activated charcoal?
70. What are forms of carbon?
71. What is amorphous carbon?
72. What is crystalline carbon?
73. Give some examples for amorphous carbon?
74. Give some examples for crystalline carbon?
75. Difference between amorphous and crystalline carbon?
76. Define allotropes?
77. Name some allotropes of carbon?
78. What is chemical formula of activated charcoal?
79. What are the chemical names of activated charcoal?
80. What is molecular weight of charcoal?
81. What is principle behind conversion of bio-waste into activated charcoal?
82. Does the preparation of activated charcoal helps to entrepreneur?
83. What is glycerine?
84. How glycerine is produced?
85. What are the applications of glycerine?
86. Does activated charcoal will converts crude glycerine into pure glycerine?
87. What are the improvements needed to produce the activated charcoal?
88. What does activated charcoal do?
89. What is the form of activated charcoal?
90. Does activated charcoal is absorbent or adsorbent?
91. Is there any potential effect of activated charcoal on cancer?
92. Is it safe activated charcoal is used in capsules?
93. How long does activated charcoal last?
94. Explain the conformation test for activated charcoal?
95. Can activated charcoal is retain adsorption properties when it is submerged in liquid?
96. What is briquette charcoal?
97. Difference between briquette charcoal and activated charcoal?
98. How long activated charcoals stay in the system?
99. What is charge present on activated charcoal?
100. How activated charcoal does trap the pollutants substances?



BOREWELL CHILD RESCUE ROBOT

1. What should we do with you people?
2. Should we do or explain or do both in in this project?
3. What are the names of other team members?
4. What's your college name?
5. What are you studying?
6. Which year you're studying?
7. What is Anveshana?
8. What is the use of Anveshana?
9. How did you know about Anveshana?
10. What is the use for us in joining with you?
11. What is your project name?
12. Is it a human robot?
13. How it works?
14. How did you arise with this idea?
15. How long will it take to do this project?
16. How are we going to do all these?
17. Did you do the design?
18. We should ask our parents to join in this project?
19. We have exams what to do?
20. When is Anveshana event?
21. How projects are selected for Anveshana?
22. Why did you select our school?
23. Why have you selected me for this work?
24. Should we pay money for this project?
25. What should explain about project?
26. Explain us about the project?
27. Why have titled the project like this?
28. What do you mean by body of the robot?
29. What all are there in body?
30. What the cost of this project?
31. What type of mechanisms are used in this robot system?
32. What is arduino?
33. What is raspberry pi?
34. What is the use of these boards?
35. How does that board controls the whole system?
36. How cameras are being used in this system?
37. How much mega pixel camera?
38. Can't we use the camera of mobile phones?
39. How do babies fall in borewell?
40. How will others know that baby has fell into borewell?
41. How do our rescue teams save the baby that has fell into the borewell hole?
42. Why do people leave borewell hole open?
43. How will the rescue team will find at what depth the baby is there in the hole?
44. Why their method is not working?
45. How will they rescue if the baby inside hole is full of rocks?
46. Will the baby get enough oxygen to breath?
47. What will the surrounding pressure in borewell hole?
48. Baby will get fear by seeing the dark?
49. How to rescue if the baby falls upside down?
50. In the borewell holes i have seen are very small and how do the babies fall into it?
51. What are inches?
52. Are there borewell holes of 12 inches?
53. How to convert inches to centimetres?
54. What happens if the baby doesn't cry after falling into borewell hole?
55. The method used by rescue team at present, is it not costly?



56. Is that method safe to save the child?
57. How much time is taken by rescue team to save the baby?
58. How did you design this robot?
59. What software you have used?
60. Do all designers use solid works software?
61. What are different software's available?
62. Can u teach us designing?
63. What all projects you have done?
64. Your parents won't scold if you stay in college at night times?
65. What games are there in your laptop?
66. What motor is used in this system?
67. What is dc motor?
68. What battery is used?
69. Can tell us about various types of batteries?
70. What is bearing?
71. Why do we need bearing?
72. What are friction losses?
73. What is spur gear?
74. What are the different types of gears?
75. Why are we using ropes here?
76. What are fasteners?
77. What are the different bearings?
78. What are control switches?
79. Why those are used?
80. How control switches are used?
81. How safe is our robot system?
82. How much time do we need to save the baby?
83. What is total weight of our system?
84. Is the system fully automatic?
85. Can everyone operate the robot?

86. Why the state or national rescue teams haven't upgraded to this system?
87. What we will do in Anveshana event?
88. Will they ask us questions?
89. How many days is the event?
90. Where is the location of the event?
91. When are we supposed to work with your team?
92. How to explain to the guests at the event?
93. Is it possible to save the baby which is at 300ft/
94. How to install or carry the setup to location?
95. What was your percentage of sslc?
96. What do we do if there are no borewell holes?
97. Why your team is doing?
98. Instead of this you could have brought awareness among people to close the borewell holes?
99. When we will able to see the working model?
100. Can we take a group selfie?



SEMI-AUTOMATED HONEY EXTRACTOR MACHINE

1. What do you mean by semi?
2. What do you mean by automated?
3. Different methods of honey extraction?
4. What is honey?
5. What is the principle involved?
6. What is centrifugal force?
7. What is centrifuge?
8. What is force?
9. What is the SI unit of force?
10. How honey is produced?
11. How bee's produce honey?
12. What are the uses of honey?
13. What is the chemical composition of honey?
14. What are the types of honey bee?
15. What is honey comb?
16. What kind of environment is required for honey production?
17. What is honey extraction machine?
18. What is semi-automated honey extraction machine?
19. What do you mean by machine?
20. How should honey stored at home?
21. Does honey ever go bad or spoil?
22. What is the amount of water content in honey?
23. Why does honey sometimes look like it is whitish and hard?
24. How many years honey can be stored?
25. How long does a honey bee live?
26. How many bee's live in a hive?
27. What is hive?
28. Do all honey bees make honey?
29. How many flowers does it take to make honey?
30. How many types honey is there?
31. What is queen bee?
32. What is worker bee?
33. What are drones?
34. Where do honey bees live?
35. How honey bee sips nectar?
36. What is life cycle of honey bee?
37. How do honey bees make the honey bee?
38. How much honey does hive produce?
39. What is the artificial method of producing honey?
40. How many honey comb frames are present in a box?
41. How much honey do you get from one frame?
42. How far apart should the hives bees from each other?
43. How close to the house can I put my hives?
44. What happens to the bees during winter?
45. What are the different types of honey extraction machine?
46. What do you mean by manual honey extraction?
47. Is squeezing is suitable for honey extraction?
48. What are problems associated in manual honey extraction?
49. Difference between manual and semi-automated honey extractor?
50. What is the speed required for honey extraction?
51. What is speed?
52. What is SI unit speed?
53. Different parts of semi-automated honey extractor?
54. What is motor?
55. What are the different types of motor?
56. What is AC?



57. What is DC?
58. What is gear?
59. What are the different types of gear?
60. Which motor is used in semi-automated honey extractor?
61. What is torque?
62. What is the SI unit of torque?
63. How a motor is driven?
64. What is power?
65. What is the unit of power?
66. What is battery?
67. What is the range of battery?
68. What are the different types of battery?
69. Which type of battery is used in semi-automated honey extractor?
70. How battery is charged?
71. Which gear is used in manual honey extraction machine?
72. Which material is used to manufacture a gear?
73. What is bevel gear?
74. What is driver gear?
75. What is driven gear?
76. What is shaft?
77. How motor is connected to shaft?
78. What is coupling?
79. What are the different types of coupling?
80. Which type of coupling is used in our machine?
81. How different components of a machine are joined?
82. What is welding?
83. What are the different types of welding?
84. Different types of shaft?
85. Which material is used to manufacture a shaft?
86. How honey is collected in our machine?
87. What is drum?
88. Which material is used for the drum?
89. What is the standard size for the drum?
90. What is frame?
91. How many frame holders is used in our machine?
92. What is frame holder?
93. How many labours required to operate a machine?
94. Does a skilled operator is required to operate a machine?
95. What are the advantages of semi-automated honey extractor?
96. What are the disadvantages of semi-automated honey extractor?
97. How testing is done?
98. How honey is purified after extraction of honey?
99. What is filter?
100. Is the machine user friendly?
101. Can this project can be done in large scale?



MAGLEV TRAIN

1. What you mean by Maglev train?
2. Who invented Maglev train?
3. On which year, this theory came into existence?
4. What are parts it involves?
5. What is the efficiency of the maglev train?
6. What is the function of magnet?
7. What are the applications of Maglev?
8. What is the function of Transformers?
9. What is the function of battery?
10. How does this technology works?
11. Why do I need D C power supply?
12. What is battery?
13. Why battery is used?
14. Is this project is innovative?
15. What all components this model consist?
16. What are the drawbacks of this model?
17. Which material does the Transformer is made up of?
18. Why copper wire is used?
19. Why the Aluminum plate is used?
20. Is this model is eco-friendly?
21. Where did you get the idea from?
22. What is Transformer?
23. Why copper wire is used?
24. On which principle this model works?
25. What is the temperature range in device?
26. For what reason you select this project?
27. Is this model is portable?
28. On which principle does Transformer work?
29. What is welding?
30. For what purpose welding is used?
31. Is this model already exists?
32. Why magnet is used?
33. What are the limitations of the maglev train?
34. What are the electronic components used in the project?
35. Which microcontroller is used in this project?
36. What is a microcontroller?
37. What is the use of microcontroller?
38. What is the use of LED?
39. What is a relay?
40. What is the use of relay?
41. How does a relay work?
42. Which programming language is used to program PIC microcontroller
43. Which transistor is used in this project?
44. What is the use of transistor?
45. What happens when RESET button is pressed?
46. Why potentiometer is used?
47. Which voltage regulator is used?
48. What is the use of Voltage regulator?
49. What are capacitors?
50. What is the use of capacitor?
51. Which power supply is used in the project?
52. Why reset button is used?
53. What is the function of RELAY?
54. What is PCB?
55. RAM capacity of the PIC used?
56. ROM capacity of the PIC?
57. Current gain of the transistor?
58. What is the use of resistor?
59. Why Display is used?



60. What is the use of diodes?
61. Which diode is used in this project?
62. What is the maximum input voltage and current to the PIC Microcontroller?
63. Which is software used in programming PIC microcontroller?
64. Can this project be used for long term applications?
65. What is the output voltage PIC microcontroller?
66. Is it possible to replace magnet by any other material?
67. Why soldering is used in this model?
68. Why regulator is used?
69. Why copper winding is used?
70. How different is it from conventional train?
71. Which is more power efficient?
72. Why it is better than conventional trains?
73. What is the maximum speed it can have?
74. Is there any other method rather than levitation?
75. What happens if tyres are used in place of levitation?
76. Why levitation occurs?
77. Why guide ways are used?
78. How lift and thrust are created?
79. Does this train run smoothly?
80. What amount of power is required?
81. Who gave an idea for frictionless trains?
82. Which all countries have maglev trains?
83. Who are the Indians reviewed literature?
84. Does maglev require any fossil fuels?
85. What is the maintenance cost of maglev train?
86. What is the alternative method if track system fails?
87. How the model is assembled?
88. What is fabrication?
89. Can tracks be laid underground?
90. What happens if water comes in contact with Transformer?
91. What are the safety measures taken to overcome the above problem?
92. Can it be fabricated to water resistant?
93. Can AC current be used?
94. What happens if A C current is used?
95. Do the maglev trains require less energy?
96. What are the additional features can be installed?
97. Which are the other means of controlling the system?
98. Can we replace the Microcontroller?
99. Does it work on renewable source of energy?
100. List the disadvantages of maglev train?



DESIGN OF EMBROIDERY STAND

1. what is embroidery?
2. what is Running stitch?
3. what is stem stitch?
4. Embroidery work in Kashmir is called as?
5. Embroidery work in Bihar is called as?
6. Embroidery work in Bengal is called as?
7. Embroidery work in Himachal Pradesh is called as?
8. Embroidery work in Karnataka is called as?
9. Embroidery work in Uttar Pradesh is called as?
10. Embroidery work in Orissa is called as?
11. Embroidery work in Punjab is called as?
12. Embroidery work in Rajasthan is called as?
13. What are the commonly used stitches in Indian embroidered textiles?
14. Embroidery, also been called “_____ with needle”
15. Name the famous shawls of Kashmir.
16. Name the instrument which is used in Gujarat embroidery.
17. What is Chikkan-kari and from which part of country it is popular
18. Where can we find embroidery in northern parts of India?
19. The basic stitch used in Sujani is _____ stitch.
20. _____ is appliqué style embroidery practiced in Orissa.
21. The motif used in Phulkari to ward off evil eye is called _____
22. In Parsi embroidery _____ knots are used to create a texture on the fabric.
23. The interlace stitch used in Gujarat embroidery is called _____
24. The embroidery style from Kutch is practiced by the _____ of shoemakers
25. Traditionally the _____ was used as a cover for food prasad offered to gods and goddesses.
26. The base material for Parsi embroidery is _____ fabric.
27. The basic stitch used in Parsi embroidery is?
28. The Parsi embroidery is done on _____ and _____
29. The three types of stitches used in chikankari are?
30. The fabric to be embroidered is first stretched on a rectangular wooden frame supported on two tripods called ?
31. The two embroidery styles under Zardozi are?.
32. Four basic stitches used in Kasuti embroidery are?
33. _____ is an embroidery style that originated in West Bengal
34. _____ or embroidered quilts were made on the arrival of a newborn.
35. _____ appliquéd textiles were initially made to decorate the idols in Lord Jagannath temple of Puri, orissa.
36. A garment is a product
37. The study of man and his measurement is called
38. _____ is known as "King of Fibres"
39. ----- is the process required to convert materials (Input) into complete products(Output)
40. ----- is the application of computer technology to the development of a garment to the point of production.
41. ----- is the process of drawing or printing pattern pieces or markers on paper so that they can be reviewed or cut.



42. Expand SPI _____
43. ----- class is formed by two or more pieces of fabric joined by overlapping at the needle.
44. Cutting devices controlled by electronic microchips -----
45. White colour thread is used commonly in _____ embroidery.
46. Gavanthi stitch is used in _____ embroidery.
47. Jaisalmer Applique work is famous in _____ state
48. _____ is a type of silk fibre.
49. Pashmina is a type of _____ fibre.
50. Moti Bharat is _____ work.
51. 'Bagh' means _____
52. 'Ergonomics' is related to human _____ & _____
53. In ergonomics, the most frequently used components are arranged in _____
54. If natural light is used as the principal means of illumination at workspace, windows area needs to be equal to _____ percent of floor area.
55. The working area should be illuminated _____ their surroundings.
56. The safe exposure limits for noise levels for 08 hours of working/day is _____
57. The people can carry out continuous task without fatigue if the energy requirement for the task is less than _____
58. For longer seating, the most comfort position for the leg is when knee is bent at about _____ degree.
59. The state of the worker by which the capacity and willingness for doing work is reduced is called _____
60. The basic definition of Ergonomics is?
61. If you notice tingling, soreness or stiffness in your hands and wrists while working you should: _____
62. What all can contribute to Carpal Tunnel Syndrome?
63. Engineering controls involve:
64. When is the most cost-effective time to consider ergonomics?
65. What are ergonomic risk factors?
66. Ergonomic conditions are commonly caused by:
67. What are the recommended ergonomic assessment tools?
68. The technique most known for its use of a stop watch is:
69. Therbligs are most closely related to:
70. A standard time is equal to the normal time adjusted for the _____
71. OSHA is concerned with _____
72. Macro-ergonomics is an approach to ergonomics that emphasizes
73. What is one way to reduce stress among the employees within the workplace?
74. In the age of high technology, what is the key to the most significant and enduring productivity improvement?
75. Learners retain most from which type of instruction?
76. M. Selye's three stages of the human stress response are _____
77. A pathological, and therefore generally undesirable, human reaction to psychological, social, occupational, or environmental stimuli is _____
78. The best policy regarding stress is to _____
79. Which of the following is an early safety program based on the "Three E's of Safety"?
80. What is the most common cause of work injuries?



81. Which part(s) of the body is most frequently injured, according to the NSC (National Safety Council)?
82. Which professional field is concerned with motion and the processes whereby other energy forms are converted into motion?
83. Who are the most likely candidates to work as safety engineers?
84. Productivity is a measure of:
85. The father of anthropometry is _____
86. Cartilage, tendons, joints, ligaments and connective tissues together made up of system known as _____
87. Musculoskeletal disorders are a result of an injury to the _____
88. A sprain is an injury to the _____
89. A strain is an injury to the _____
90. The degree to which a joint is able to move is referred to as _____
91. Which movement, measured by Goniometry, is the upward or backward movement of a body part?
92. the downward movement of the body part is _____
93. You're at risk of an MSD if you: _____
94. Neutral position is?
95. MSD risk factors include _____
96. What is MSD?
97. What is Anthropometry?
98. Do you understand what MSDs are and the signs and symptoms of MSDs? if so list them.
99. MSD's can be grouped as _____
100. What is 20/20/20 rule?



ADVANCED CANE FOR BLIND

1. What is a cane?
2. What is sensor?
3. What is ultrasonic sensor?
4. How does ultrasonic sensor work?
5. Why we use ultrasonic sensor?
6. What is the range of ultrasonic sensor?
7. What is the current does ultrasonic sensor needs to start working?
8. What is the working frequency of ultrasonic sensor?
9. Which signals ultrasonic sensor sends?
10. How the distance is calculated using ultrasonic sensor?
11. What is water sensor?
12. How does water sensor work?
13. What is working voltage of water sensor?
14. What is working current of water sensor?
15. What is working temperature of water sensor?
16. What is PIR sensor?
17. How does PIR sensor work?
18. What is IR?
19. What is the difference between ultrasonic sensor and PIR sensor?
20. What is Arduino Uno?
21. How does Arduino Uno work?
22. What is LDR?
23. How does LDR works?
24. What is photocell?
25. What is phototransistor?
26. What is photodiode?
27. What is wavelength?
28. What is semiconductor?
29. How photocell constructed?
30. What is the principle of JDR?
31. What is a photocell?
32. What is GSM?
33. How does GSM work?
34. What are elements of GSM?
35. What is mobile station?
36. What is GPRS?
37. How does GPRS work?
38. What is GPS?
39. How does GPS work?
40. What is BSS?
41. What is OSS?
42. What is SS?
43. What is VLR?
44. What is AUC?
45. What is HLR?
46. What is MSC?
47. What is EIR?
48. What is BSC?
49. What is bandwidth?
50. What is frequency?
51. What is modulation?
52. What is modulator?
53. What is channel separator?
54. What is LED?
55. How does LED works?
56. What is anode?
57. What is cathode?
58. What is electroluminescence?



RAILWAY ACCIDENT CONTROL BY RADAR PHOTO ELECTRIC TECHNOLOGIES

1. Why only railway sector is chosen, why not road ways or airways?
2. Who invented trains?
3. Who is the inventor of 'railways as a mode of communication'?
4. Who started railways in India?
5. Which is the first train launched in India?
6. When did the first steam power railway journey take place?
7. What is the weight of first train carrier?
8. Among different types of trains, which train can be used to implement the project?
9. When did Indian railways founded?
10. Where does Indian railway head quarter is situated?
11. How many railway zones are there in Indian?
12. How many types of trains can be seen in world and in India?
13. Which organization of railways helpful for the future plans of Indian railways?
14. How much money has been invested for the future plans of Indian railways?
15. Why accident control concept is focused in the model?
16. How many types of tracks can be seen now a day?
17. Why railways are called as the cheapest mode of transportation?
18. What are railway tracks?
19. What is Radar?
20. Why RADAR technology is used in the model?
21. How Does a Radar Works?
22. What is RADAR stands for?
23. What is Radar Gun?
24. What is the principle of RADAR?
25. How long does it take a train to come to a complete stop?
26. What is the maximum speed of the train in India?
27. How far away can Radar detect things?
28. What is Radar signal?
29. How does a Radar sensor work?
30. What is the difference between Sonar and Radar?
31. What is Sensor?
32. What is Radar Signal Processing?
33. What is Antenna?
34. What is Doppler Effect?
35. Do ultrasonic waves audible to humans?
36. Why in the demo experiment ultrasonic waves are used?
37. What is the position of Indian railways in the world railways?
38. For the practical version of the model which waves can be used?
39. In concerned to practical scenario, how many meter sensitivity can be seen in the trains for accident control?
40. In the model which board is used as a working board?
41. What is the wavelength and frequency of the radio waves?
42. How long does it take to get results from a Doppler test?
43. What is the difference between Ultrasonic sensors and Radar?
44. What are some examples of the Doppler Effect?
45. What are Radio waves?
46. With respect to practical scenario, ultrasonic waves are



sound waves and radio waves are EM waves. Basically, which their properties differ how can we connect both of those?

47. Which effect is used in the experiment?
48. Why do we use Doppler Effect in the model?
49. What are some common uses of the Radio Waves?
50. What is Microwaves?
51. Can ultrasonic sound be heard by humans?
52. What is the range of ultrasonic waves?
53. How do you use an ultrasonic sensor?
54. How does an ultrasonic motion detector work?
55. How does a Doppler ultrasound work?
56. How does a ultrasonic sensors works?
57. What is the use of ultrasonic sensors?
58. What is the principle of ultrasonic sensors?
59. What are ultrasonic sensors?
60. How does an ultrasonic distance finder work?
61. Through which device the program written in the computer can be damped to the Arduino board?
62. How many digital pins are there in the Arduino board?
63. What is the function of microcontroller in the Arduino board?
64. How many power pins are present in the Arduino board?
65. Why does the marketing cost be further minimized?
66. How many analog pins are there in the Arduino board?
67. What is the function of RADAR GUN?
68. Why should we use Arduino?
69. Which microcontroller is used in Arduino?
70. Who invented the Arduino?
71. What is the use of Arduino Uno?
72. What are the features of Arduino?
73. Which language does the Arduino use?

74. Why Arduino is better than another microcontroller?
75. What does the Radar measures?
76. How does an ultrasonic distance sensor work?
77. What is ultrasonic distance finder?
78. What is ultrasonic technology?
79. Is ultrasonic sound harmful to humans?
80. What does the bouncing of waves mean?
81. What is the term of bouncing of waves of an object?
82. How we control the train speed?
83. What is Radar range sensor?
84. How far away can you feel a train vibration?
85. Can it have implemented in electronic trains?
86. Does this project have multiple applications?
87. What is the main impact for deaccelerating the train?
88. Which microcontroller is used to convert pulse to power?
89. Does this project possible to detect the flaws in the railway track?
90. Which is the fastest and slowest train in India?
91. What is the function of Radar?
92. What are the functions of antenna?
93. What is Radar detector?
94. Who is the railway minister of India?
95. What is the use of ultrasonic distance finder in Arduino board?
96. Which software is used in damping of program in Arduino?
97. Name the wave used in ultrasonic distance finder?
98. Name the wave used in prototype?
99. Name the wave used in real-time model?
100. Why this project is chosen in Anveshana?



SMART SPECS FOR BLIND

1. Who is the founder of AGASTYA foundation?
2. What are the objectives of AGASTYA foundation?
3. Why AGASTYA foundation conducts the exhibitions and inspires camps?
4. How the work of the foundations does stands as a opportunity source for school as well as college students?
5. What's the motto behind conducting the workshops which includes the training of school children?
6. How the workshops conducted by the foundation do helps to develop the responsibility?
7. What are the functionality development-oriented fields of work by the foundation?
8. What are the supports provided by the AGASTYA foundation?
9. How does Anveshana program helps in building innovative skills and thinking ability?
10. How does Anveshana program helps the working coordination in groups?
11. What is an OCR software?
12. How do I OCR a PDF file?
13. How does OCR software work?
14. Which is the best OCR software?
15. How do I get OCR software?
16. What is an example of OCR?
17. How do you make a PDF OCR?
18. How do I OCR multiple PDF files?
19. How does OCR software work?
20. What is a Tesseract OCR?
21. What is OCR software by IRIS 14.0?
22. What is the meaning of OCR?
23. How can we convert image to text?
24. How do you make a PDF searchable?
25. What is an OCR?
26. What is the difference between OCR OMR and MICR?
27. What is an OCR in fitness?
28. Where can OCR be used?
29. What is the meaning of Tesseract?
30. What is Ocropus?
31. What is the fifth dimension?
32. Is 4d possible?
33. What is in the 7th dimension?
34. What is the 6 dimensions?
35. What is an electrical OCR?
36. What is the abbreviation for OCR?
37. How can you treat blindness?
38. What are the symptoms of blindness?
39. What can cause sudden blindness?
40. What does it look like through a blind person's eyes?
41. Is Blind curable?
42. What are the signs of going blind?
43. Why am I losing my eyesight in one eye?
44. Can eye floaters cause you to go blind?
45. Why my eyesight is getting worse?
46. How do you prevent vision loss?
47. Do I floaters go away on their own?
48. What can be done about eye floaters?
49. Can vitamins help with floaters?
50. When eye floaters are serious?
51. How long does it take for a floater in the eye to go away?
52. Can eye floaters be dangerous?
53. Can eye floaters be corrected or cured?



54. Can floaters be a sign of a brain tumor?
55. How do you treat eye floaters?
56. What is the most common cause of blindness in the world?
57. What causes sudden loss of vision in one eye?
58. Is Blind curable?
59. Can a blind person get an eye transplant and see again?
60. Can a blind person ever see?
61. Do blind people see black or nothing?
62. Can a blind person see in their dreams?
63. Do blind people see black or white?
64. How do blind people walk around?
65. Can a deaf person hear in their dreams?
66. What is avoidable blindness?
67. Who leading cause of blindness?
68. What is the leading cause of preventable blindness in the world?
69. What is the most common cause of blindness in the world?
70. What vitamin deficiency can lead to blindness?
71. What are the advantages of golden rice?
72. What vitamins are good for your eyes?
73. Which is the best vitamin for eyes?
74. What is the best supplement for eye health?
75. Can eye supplements improve vision?
76. What foods improve eyesight?
77. How do you ruin your eyesight?
78. What is not good for your eyes?
79. How do you treat a blind person?
80. How do you walk with a blind person?
81. What does it look like through a blind person's eyes?
82. How do you communicate with a blind person?
83. How do you communicate with someone who is deaf and blind?
84. How can a blind person read?
85. How do people who are blind use Braille to read?
86. How many dots are there in the Braille system?
87. Is it easy to learn Braille?
88. Is it faster to read Braille?
89. How do blind people dream?
90. Do some blind people drive?
91. Is it illegal to drive with one eye?
92. Can someone who is blind cry?
93. What does a blind man see?
94. Can crying hurt your eyes?
95. How many blind people are there in India?
96. Which country has the largest blind population?
97. What is the aid provided for blind in India?
98. Who are optometrists?
99. What qualification is needed to become optometrist?
100. How are donated Eyes stored and used in replacement surgeries?



STRENGTH OF DIELECTRICS

1. What is dielectric?
2. What is liquid dielectric?
3. What are the applications of liquid dielectrics?
4. What is a transformer?
5. What are the purposes of oil in the transformers?
6. What are the advantages of edible oil?
7. Why we need oil in the transformers?
8. Why edible oil is better than the mineral oil?
9. What is the breakdown strength in the transformer?
10. Why breakdown strength is required in transformer oil?
11. What is viscosity test?
12. Why viscosity of the transformer oil is required for the transformer?
13. What is flash point?
14. What is fire point?
15. Why flash point and fire point tests are performed on transformer oil?
16. What is the difference between edible oil and mineral oil?
17. How transformer oil acts as an insulator?
18. How transformer oil helps to cool the transformer?
19. How we can save investing money on transformer oil?
20. Why breakdown occurs in transformer?
21. What are the procedures to find breakdown strength?
22. What are the ways to find flash and fire point of transformer oil?
23. What is the procedure to find viscosity of transformer oil?
24. What are the types of dielectrics?
25. What is aging of transformer oil?
26. How aging of transformer oil is measured?
27. What are the best properties of edible oil compared to mineral oil?
28. Why biodegradability of transformer oil is needed?
29. What are the main sources required to manufacture edible oil?
30. What are the main sources required to manufacture transformer oil?
31. What are the types of edible oils?
32. Why we prefer electrodes to conduct breakdown test?
33. What is the decision we have obtained by studying this entire test on liquid dielectrics?
34. What is compatibility of transformer oil?
35. Which transformer oil has more viscosity?
36. Which transformer oil has more breakdown strength?
37. Which transformer oil has more flash and fire point?
38. What are the lubricity conditions in both edible and mineral oil?
39. Why we use transformer for high voltage applications?
40. Why transformer is called as heart of electrical supply system?
41. What is the cost comparison between edible oil and mineral oil?
42. Why transformer oil breakdowns for very high voltage?
43. Why viscosity of edible oil is more when compared to mineral oil?
44. Why breakdown strength is more in edible oil?
45. Why flash and fire points are more in edible oil?
46. Why fire point is more when compared to flash point?
47. Why we use distilled water to conduct viscosity test?
48. What is an average value of voltage to be set to conduct viscosity test?



49. Why we use transformer oil in high voltage capacitor?
50. Why we use transformer oil in circuit breakers?
51. What is the necessity of transformer oil in high voltage capacitor?
52. How much oil an average transformer will consume?
53. How much cost we can save by using edible oil instead of mineral oil?
54. What is the cost difference between edible oil and mineral oil per litre in market?
55. Why edible oil's cost is less when compared to mineral oil?
56. Which transformer oil has more specific resistance?
57. Apart from transformer application, where we use mineral oil?
58. Which oil is the best alternative solution for mineral oil?
59. What is the rate of density of transformer oil?
60. Why we use silica gel in transformer?
61. How liquid dielectrics serve as a medium for heat transfer?
62. What is the synthetic material used in transformer oil?
63. Why Linear Alkyl Benzene (LAB) material used in transformer oil?
64. Why we pause the test for 2 minutes after breakdown of transformer oil?
65. Why we clean the viscometer tube with oil which is going to use in viscosity test?
66. What is the formula to find out viscosity?
67. Why viscosity of mineral oil is less as compared to edible oil?
68. Why breakdown strength is less in mineral oil when compared to edible oil?
69. Why flash and fire points of mineral oil is less when compared to edible oil?
70. What are the safety precautions to safeguard the transformer?
71. Why conservator is required for transformer?
72. What is the function of breather for transformer oil?
73. How oil level is indicated in the transformer?
74. Why viscosity test needs time in terms of seconds?
75. Why time in seconds is multiplied with "constant value" for viscosity of transformer oil?
76. How constant value is obtained for viscosity formula?
77. What is the function of bulb used for doing viscosity test?
78. What are the factors to be considered for mineral oil when it is used in transformer?
79. What are the factors to be considered for edible oil when it is used in transformer?
80. Which oil has less cost? Either edible or mineral oil?
81. Which oil has more breakdown strength? Edible or mineral oil?
82. Why palm oil has more breakdown strength when compared to sunflower oil?
83. Which oil has more viscosity compared to vegetable oil and edible oil?
84. Which oil has more flash and fire points compared to vegetable oil and edible oil?
85. What are the properties of palm oil?
86. What are the properties of sunflower oil?
87. What are the comparisons between palm oil and sunflower oil?
88. How transformer uses oil as a coolant as well as insulating medium?
89. How we fill oil to the transformer?



90. Why transformers will get heated up when stepping up or stepping down of voltage?
91. Why transformers are rated in KVA or MVA?
92. What will happen to bulb if it is absent in viscosity test?
93. How windings are insulated in transformer?
94. Which types of insulating materials are used in transformer?
95. What will happen if insulation is not provided in the transformer?
96. How eddy current losses can be eliminated from transformer?
97. How efficiency of a transformer is calculated?
98. How regulation can be determined in transformer?
99. How the electrodes are cleaned before filling the test vessel?
100. What are the results we obtained from these tests?
Which oil is better to use for high voltage applications in transformer on priority and property basis?



LEADING STICK

1. What is the purpose of creating a smart guiding stick?
2. What materials have you used to make this project?
3. What made you choose this idea as your project?
4. How much time did you take to complete this project?
5. What new things did learn while making this project?
6. What problems did you encounter while making this project?
7. How does your invention improve on the present situation?
8. What is new about this project?
9. What made you name this project as “smart guiding stick”?
10. What does artificial intelligence contribute for the better functioning of the stick?
11. Where and when the idea of invention was first conceived?
12. Has your invention been tested in real life on visually impaired people?
13. What are sensors?
14. How many sensors are in there in total?
15. What are the atmospheric sensors?
16. What are ultrasonic sensors?
17. The detection of an obstacle can be done within what range?
18. What is Arduino compiler?
19. What are the proportions of the stick?
20. What is compiler?
21. What is the mode of power supply?
22. How have you collaborated artificial intelligence?
23. Are the obstacles predefined in the stick’s memory?
24. It being an electronic walking stick, does it need to be charged?
25. What is the warrantee of the battery?
26. Is there any connection made to other parts of the body except the hand?
27. How are the messages conveyed to the user?
28. How are the irregularities on surface identified by the leading stick?
29. How have you programmed the sensors?
30. How user friendly is the leading stick?
31. What is GPS and GSM?
32. How does Arduino compiler benefit the working of the leading stick?
33. Is the stick water resistant?
34. If yes, can it also detect the depth of the water body in the rainy season? (refer ques 33)
35. Have you made use of STEM education?
36. Are there any chances of the stick being worn out due to continuous walking?
37. What are the attributes of the stick?
38. What is the capacity of the capacitor?
39. How much resistance is offered by the resistors?
40. How many attempts have you made before arriving at the final project?
41. What are the features of the leading stick?
42. Can the leading stick detect an object which is approaching from behind?
43. Can the leading stick be afforded by everyone?
44. Can the object which is not in contact with the surface but can cause obstructions to the user be detected by the stick?
45. What kind of damages can the device possibly incur?



46. How does it warn the user against an object coming at a great speed?
47. How fast is the message conveyed to the user after the detection of the object?
48. Can the leading stick detect multiple obstacles coming in its way?
49. In the case of misplacements, how can the device be found by the user?
50. Does this leading stick notify the user even when the power supply is **nearly** drained?
51. What kind material is used to make the base of the leading stick?
52. Why did you choose to make a smart guiding stick instead of any other projects?
53. Why did you choose wood as your base material for the stick?
54. What are the demerits of using ultra sonic sensors?
55. What are the limitations of using atmospheric sensors?
56. Can the device withstand severe climatic conditions?
57. Mention the connection of the components of the walking stick.
58. Can any alternate components be used in order to reduce the cost of the device?
59. Can the device resist rain?
60. How does the vocal guide work?
61. What are the drawbacks of the vocal guide used in device?
62. Is there any possibility of the user being misled by the stick?
63. What are the short coming of the project?
64. What are the merits of this project?
65. There are approximately 15 million visually impaired people in India, what are you planning to do for them?
66. What is frequency of the ultrasonic device used in this?
67. What is the role of the controller in the project?
68. What improvements do you think you could make in this project?
69. Can the stick detect any object pulls out without warning?
70. Can Braille letters be used to facilitate the smoother functioning of the stick?
71. What kind of damages can the device possibly cause to the user?
72. Will there be sufficient time for the user to retaliate after the message has been conveyed?
73. Where is the vocal guide connected to the body?
74. Does the stick provide any additional facilities for the people with hearing impairment?
75. Describe the framework of the leading cane.
76. Are infrared sensors used in the stick?
77. How can the stick navigate the blind?
78. Is there is any mechanism to identify that accident has occurred?
79. What is the strength of the stick?
80. Is there any device to detect electric field near to the stick to prevent the user from getting electric shocks?
81. Will the device be able to send the message if network connection problem persists?
82. Is there any device to detect magnetic field near to the stick?
83. If yes, is it going to affect the working of the stick?(refer ques 82)



84. How can it distinguish between moving object and stationary object?
85. Have you patented the design?
86. What is the total cost of the project?
87. Is it certified by the medical council?
88. Are there any prospects for overseas market?
89. Whether the facility of the multiple language translation is available or not?
90. Whether the device is available in the market already or is this new product?
91. What is the aim of this project, commercial or social work?
92. Is it worth using for partially blind people?
93. Is it child friendly?
94. Is there any protective measure to protect it from children, such as child lock facility?
95. Is the device easily portable?
96. Is there any protective case?
97. Is there any provision for determining rigid or soft obstacles?
98. What are the provisions for slippery surface risks?
99. Is there any power backup option?
100. Can the length of the stick be varied?



SMART FUEL GAUGE

1. What is fuel gauge?
2. What is a microcontroller?
3. What is a battery?
4. Where is the fuel gauge used?
5. What is the objective of the project?
6. What is the working principle of microcontroller?
7. What are the criteria for choosing a microcontroller?
8. What does the microcontroller includes?
9. What are the applications of microcontroller?
10. What is the specification of the microcontroller?
11. How are the pins configured in the microcontroller?
12. How many pin IC is the microcontroller?
13. What is a flow meter?
14. How the fuel is measured using flow meter?
15. What is the working principle used in the flow meter?
16. What is Hall Effect?
17. What are Hall sensors?
18. What are the applications of flow meter?
19. What is a diode?
20. What is a transformer?
21. What are step-up transformer?
22. What are step-down transformer?
23. What are capacitors?
24. What are resistors?
25. What is voltage?
26. How much voltage is used for the power supply?
27. What are rectifiers?
28. What is a pulse?
29. How is the flow rate measured?
30. What is LCD display?
31. What is the use of LCD display?
32. What are the pin configurations of the display?
33. What is the full form of LCD?
34. What is LCD?
35. What is the matrix measurement of the LCD display?
36. What is microwave LED?
37. What are embedded controllers?
38. What is RAM?
39. What is ROM?
40. What is EEPROM?
41. What is meant by ALU operation?
42. What is meant by CPU operation?
43. What is an A/D convertor?
44. What is modulation?
45. What is pulse width modulation?
46. What is DAC?
47. What is ADC?
48. What is DFT?
49. What is FFT?
50. What is CMOS?
51. What is the operating voltage of the microcontroller used?



52. What is VCC?
53. What is GND?
54. How a microcontroller is built?
55. What kind of role is played by microcontroller in this project?
56. How microcontroller is related to this project?
57. How a microcontroller is programmed?
58. How microcontroller is implemented in this project?
59. What are the parts of microcontroller?
60. What is a core in microcontroller?
61. What are the peripherals of microcontroller?
62. What are the special features of microcontroller?
63. What is CPU?
64. What are LCD drivers?
65. What are comparators?
66. What are timers?
67. What are interrupt controllers?
68. Mention some of the applications of microcontroller?
69. Describe the internal structures of microcontroller?
70. Why flowmeter is used?
71. What is the role of flowmeter?
72. How this flowmeter is connected in the project?
73. How flowmeter works?
74. How does flowmeter detects the amount of fuel?
75. Why flowmeter is important?
76. What is density?
77. With what units the amount of fuel is displayed on LCD?
78. What are components used inside the battery?
79. Explain the working of this project?
80. How it is implemented to vehicles?
81. What is the cost of this project?
82. How big the project is?
83. Whether it is a new project or modified one?
84. Where this project can be used?
85. What is the necessity of this project?
86. How petrol attendants cheat customers?
87. How this project is beneficial for consumers?
88. To which population is this project beneficial?
89. For how long this project can be used?
90. What are the required fuel specification?
91. On what basis this project has been built?
92. What made us to build this project?
93. What is the size of this project?
94. Whether we can measure fuels other than petrol using this project?
95. Where it is implemented inside a vehicle?
96. How it is connected to a vehicle?
97. Whether this project is currently used in automobiles?
98. Tell us about the future implementation?
99. What are the business plans?
100. Why is it called “Smart fuel gauge”?



DIGITAL BRAILLE AUDIO LEARNING DEVICE

1. What is braille?
2. What is embedded system?
3. Define braille cell?
4. What is servomotor?
5. Name the mechanism used in servomotor?
6. What is LCD?
7. Full form of FPGA?
8. What is text to speech convertor?
9. What is the program used in this project?
10. What is arduino?
11. What is regulated DC?
12. What is transistor?
13. What is npn transistor?
14. What is pnp transistor?
15. What is ADC?
16. What is DAC?
17. What is Resistor?
18. What is capacitor?
19. What is inductor?
20. What is resonance?
21. What is EMIC text to speech convertor?
22. Name the EMIC text to speech convertor used in this project?
23. What is jumpers?
24. What is rotary actuators?
25. What is Microcontroller?
26. What is arduino Uno?
27. What is voltage regulator?
28. What is load regulation?
29. What is minimum load regulation?
30. What is source/line regulation?
31. What is output impedance?
32. What is ripple rejection?
33. What is SRAM?
34. What is EPROM?
35. What is the Operating voltage of microcontroller?
36. What is the Operating voltage of arduino board?
37. What is the Operating current of arduino board?
38. What is the flash memory of speech convertor used?
39. What is RAM?
40. What is USB?
41. What is automatic power switch?
42. What is flash memory?
43. What is instruction register in board?
44. What is ALU?
45. What is I/O lines?
46. What is interrupt unit in board?
47. What is SPI unit function?
48. What is watchdog timer?
49. What is comparator?
50. What is analog comparator?
51. What is digital comparator?
52. How many pins are there in Arduino Uno?
53. What is reference voltage?
54. What is sampling rate?
55. What is random access mode?
56. What is tape mode?
57. What is signal storage?
58. What is voice quality?
59. What is sampling rate range of APR9600?



60. Name the feedback used in servomotors?
61. For what function this feedback used?
62. What is potentiometer?
63. What is DC motor?
64. How many servomotors are used in this project?
65. What is torque?
66. What is firmware?
67. What is IDE?
68. What is the function of port register in Uno board?
69. What is DDRD means?
70. What is servo write?
71. What is delay function?
72. What is setup function?
73. What is microphone?
74. What is integrated AGC?
75. Define sampling theorem.
76. What is anti-aliasing filter?
77. What is oscillator?
78. What is power jack of arduino board?
79. What is booting?
80. What is sketches means regard to board?
81. What are the toolbar present in arduino tool window?
82. Clock speed of arduino is?
83. How many pins can act as i/o pins in arduino Uno?
84. Microcontrollers are programmed using which languages?
85. What is sample and hold circuit?
86. What is integrator?
87. What is op-amp?
88. What is sampling frequency?
89. Define Shannon's sampling theorem?
90. What is bandwidth?
91. What is continuous time signal?
92. What is signal?
93. Name the two languages used for application purposes?
94. What are micro servomotors?
95. What is gear mechanism?
96. Define detector amplifier?
97. What is modulation?
98. What is pulse width modulation?
99. What is duty cycle?
100. What is the advantage of this project?

