

PBL Problem Statements for FE Students 2018-19

Subject	Sr.No.	Problem statement
Applied Chemistry	1	Working Model on waste management
	2	Comparison of alkalinity of liquid soaps
Basic Electrical Engineering	3	Voltage generation by using Wind power
	4	Designing and construction of Earth Fault Relay for single phase power system
Applied Physics	5	To determine the time period of a spinner wheel using Laser and its interaction with a semiconducting sensor (LDR). [Output is displayed on a CRO]
	6	To determine the Young's modulus of a elastic material using the principle of variation in bandwidth of a wedge shaped film, illuminated by monochromatic light.
	7	Implement menu driven program for formulae based on Interference And Diffraction Of Light.
	8	Any working model using concept of ultrasonics and acoustics
Engineering Drawing	9	Design & Manufacture knuckle joint (Design using AutoCAD)
	10	Design & Manufacture cotter joint (Design using AutoCAD)

Applied Mathematics	11	<p>To determine the time required to empty the funnel with initial water level of 150 mm and with the dimensions shown in the figure.</p> <p>(Note : For dimensional figure contact respective subject teacher)</p>
	12	<p>Determine:</p> <p>(a) The appropriate equation for the instantaneous descending velocity of the paratrooper</p> <p>(b) The function of the descending velocity $v(t)$</p> <p>(c) The time required to land</p> <p>When an armed paratrooper with ammunitions weighing 146Kg jumped with initial velocity from an airplane at an attitude of 10,000 feet with negligible side wind.</p> <p>Assume the air resistance $R(t)$ the paratrooper encountered with is:</p> <p>$R(t) = c[V(t)]^2$ in which the coefficient $c = 15$.</p>
Structured Programing Approach	13	<p>Implement a Contacts Manager which will add contacts, remove contacts, edit contacts, search contacts and view all contacts. In this project students will learn file handling, how to write data, delete data & search data from file.</p>
	14	<p>Implement a Modern periodic table for storing name, symbol, atomic number, atomic weight of elements into a file. User can add elements and search for any element based on any one of the feature and display them.</p>