Subject Code	Subject Name	List of Experiment	V-Lab
	**Virtual Lab Mapping for B. Tech in Information Technology – 2nd Semester**		
ES-CS 291	Programming For Problem Solving Lab	1.Numerical Representation 2.Beauty of Numbers 3.More on Numbers 4.Factorials 5.String Operations 6.Recursion 7.Advanced Arithmetic 8.Searching and Sorting	http://ps-iiith.vlabs.ac.in/
BS-CH291	Chemistry-I Laboratory	Expt.1: Determination of Critical Micelle Concentration (CMC) of a Surfactant Expt.2:Demonstration of pH Effect on Fluorescence Excitation and Emission Spectra of a Fluorophore Expt.3:Demonstration of Solvent Effects on Fluorescence Spectra of a Fluorophore Expt.4: Instrumentation and working principles of solutions infra red (IR) spectroscopy Expt.5: Conductometric titration for determination of strength of given HCl solution Expt. 6: pH metric titration for the determination of strength of given HCl solution Expt. 7: Thin layer chromatography	http://www.vlab.co.in/broad-area-chemical-sciences

ES-ME291	Engineering Graphics & Design Lab	According to the content of virtual lab	http://vlabs.iitb.ac.in/vlabs-dev/labs/mit_bootcamp/egraphics _lab/labs/index.php
HM-HU291	Language Laboratory	1. Teaching the students the basic pronunciation skill using the modules available in this app. 2. Practice of regular usage of English language in various situations. Teaching the way of conversation in various situations with appropriate approach. 4.Online presentation 5. Online interview	https://play.google.com/store/ap ps/details?id=uk.co.bbc.learnin gen glish

ES TT 491	Numerical Method Lab	1.Roots of Equation: Bracketing Methods 2, Roots of Equation: Open Methods 3. Simultaneous Equation: Gauss Elimination Method 4.Simultaneous Equation: Gauss Seidel Method 5.Single Integration 6.Double Integration 7.Lagrange's Interpolation 8.Newton Forward Interpolation 9.Straight Line curve fitting 10.Second order curve fitting 11.First Order ordinary Differential equation 12.Second Order ordinary Differential equation 13.Finite difference method: Elliptical equation 14.Finite difference method: Parabolic equation	http://vlabs.iitb.ac.in/vlabs-dev/labs/numerical_lab/labs/explist.php
ES TT 492	Digital Electronics & Microprocessor Lab	1. To implement Half adder by using basic and universal gates. 2. To implement Study of Binary to Gray code converter by using basic and universal gates. 3. 1 Bit Full Adder using Multiplexer 4. To implement Half adder by using basic and universal gates 5. To implement 3-bit Up Counter 6. To implement Study of Ripple Counter by using basic and universal gates	http://vlabs.iitb.ac.in/vlabs-dev/vlab_bootcamp/bootcamp /cool_developers/index.html

		7. To implement 1 Bit Full Adder using Multiplexer 8. To implement Study of Parallel Binary Adder by using basic and universal gates	

		1. Write a Program Using 8085 & Verify for :
		   a. Addition of Two 8-Bit Numbers.
		   b. Addition of Two 16-Bit Numbers. (With Carry)
		2. Write a Program Using 8085 & Verify for :
		   a. Subtraction of Two 8-Bit Numbers. (Display Of Borrow)
		   b. Subtraction of Two 16-Bit Numbers. (Display Of Borrow)
		3. Write a Program Using 8085 & Test for Typical Data:
		   a. Multiplication of Two 8-Bit Numbers By Bit Rotation Method
		   b. Division of Two 8-Bit Numbers by Repeated Subtraction Method
		4. Write a Program Using 8085 for Finding Square-Root of a Number & Verify.
		5. Write a Program to Move a Block of Data Using 8085 & Verify.
		6. Write a Program to Arrange Number in Ascending Order Using 8085 & Verify.
		7. Write a Program to Check Number of 1's and 0's in Given Number Using 8085 & Verify. e
		8. Write a Program to Find GCD Of Two Numbers Using 8085 & Verify.
		9. Write a Program to Find LCM Of Two Numbers Using 8085 & Verify.
		10. Write a Program to Add 'N' Two Digit BCD Numbers Using 8085 & Verify.
			http://vlabs.iitb.ac.in/vlabs-dev/labs_local/microprocessor /labs/explist.php