

**List and Links of the virtual experiments to be performed by the students of
 B.Sc.-I (Semester-I)**

Sr. No.	Experiment	Link	Note
1	Use the screw gauge; To measure the diameter of the given lead shot. To measure the diameter of a given wire and find its volume. To measure the thickness of a given glass plate and find its volume. To measure the volume of an irregular lamina.	http://amrita.olabs.edu.in/?sub=1&brch=5&sim=156&cnt=1	You can directly access this experiment from the given link
2	Use the Vernier Calipers. To measure the diameter of a small spherical / cylindrical body. To measure the length, width and height of the given rectangular block. To measure the internal diameter and depth of a given beaker/calorimeter and hence find its volume.	http://amrita.olabs.edu.in/?sub=1&brch=5&sim=16&cnt=1	You can directly access this experiment from the given link
3	To find the Young's modulus of the given material bar by non-uniform bending using pin and microscope method.	https://vlab.amrita.edu/?sub=1&brch=280&sim=1509&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
4	To determine: The acceleration g of gravity using a compound pendulum.	https://vlab.amrita.edu/?sub=1&brch=280&sim=210&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
5	To determine g, the acceleration of gravity at a particular location using Kater's Pendulum	https://vlab.amrita.edu/?sub=1&brch=280&sim=518&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
6	To determine the moment of inertia of the given disc using Torsion pendulum, with identical masses	https://vlab.amrita.edu/?sub=1&brch=280&sim=194&cnt=4	You have to register first to Amrita Virtual Lab to access this expt.
7	To determine the rigidity modulus of the material of a given cylindrical rod through telescope and scale method.	https://vlab.amrita.edu/?sub=1&brch=280&sim=602&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
8	To find the velocity of sound waves in a given rod with Kundt's tube apparatus.	https://vlab.amrita.edu/?sub=1&brch=201&sim=853&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
9	To determine the rigidity modulus of the suspension wire using torsion pendulum.	https://vlab.amrita.edu/?sub=1&brch=280&sim=1518&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
10	To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.	http://amrita.olabs.edu.in/?sub=1&brch=5&sim=225&cnt=4	You have to register first to Amrita Virtual Lab to access this expt.

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Sr. No.	Experiment	Link	Note
11	To determine the angular acceleration α and torque τ of flywheel.	https://vlab.amrita.edu/?sub=1&brch=74&sim=1517&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
12	To determine the surface tension of a liquid by capillary rise method.	http://amrita.olabs.edu.in/?sub=1&brch=5&sim=224&cnt=554	You have to register first to Amrita Virtual Lab to access this expt.

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List and Links of the virtual experiments to be performed by the students of
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Sr. No.	Experiment	Link	Note
01	To determine unknown resistance using Carry Foster bridge.	https://vlab.amrita.edu/?sub=1&brc h=192&sim=346&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
02	To determine the coefficient of thermal conductivity of a bad conductor using Lee's disc apparatus.	https://vlab.amrita.edu/?sub=1&brc h=194&sim=353&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
03	Verification of Thevenin's Theorem	https://vlab.amrita.edu/?sub=1&brc h=75&sim=313&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
04	Verification of Norton's Theorem	https://vlab.amrita.edu/?sub=1&brc h=75&sim=312&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
05	Verification of Kirchhoff's Laws	https://vlab.amrita.edu/?sub=1&brc h=75&sim=217&cnt=4	You have to register first to Amrita Virtual Lab to access this expt.
06	1. To study the variation in current and voltage in a series LCR circuit 2. To find the resonant frequency of the circuit.	https://vlab.amrita.edu/?sub=1&brc h=75&sim=330&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
07	To measure the internal resistance of a given primary cell using potentiometer	http://amrita.olabs.edu.in/?sub=1&brch=6&sim=147&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
08	To design Series RL circuit and find out the current flowing through each component.	https://vlab.amrita.edu/?sub=1&brc h=75&sim=332&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
09	To design Series RC circuit and find out the current flowing through each component	https://vlab.amrita.edu/?sub=1&brc h=75&sim=328&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
10	To compare the emf's of two given primary cells using a potentiometer	http://amrita.olabs.edu.in/?sub=1&brch=6&sim=231&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
11	To verify the laws of resistances in series and parallel.	http://amrita.olabs.edu.in/?sub=1&brch=6&sim=150&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.

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List and Links of the virtual experiments to be performed by the students of
B.Sc.-II (Semester-III)

Sr. No.	Experiment	Link	Note
01	a) To determine the Hall voltage developed across the sample material. b) To calculate the Hall coefficient and the carrier concentration of the sample material.	https://vlab.amrita.edu/?sub=1&brch=282&sim=879&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
02	To draw the static current-voltage (IV) characteristics of a junction diode.	https://vlab.amrita.edu/?sub=1&brch=282&sim=1522&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
03	To study Half Wave Rectification	http://vlabs.iitkgp.ac.in/be/exp6/index.html	You directly access this expt. from the given link
04	To study Full Wave Rectification	http://vlabs.iitkgp.ac.in/be/exp7/index.html	You directly access this expt. from the given link
05	To study common emitter characteristics of transistor	http://vlabs.iitkgp.ac.in/be/exp11/index.html	You directly access this expt. from the given link
06	To study common base characteristics of transistor	http://vlabs.iitkgp.ac.in/be/exp12/index.html	You directly access this expt. from the given link
07	Study of basic properties of Operational Amplifier: Inverting and Non-Inverting Amplifiers	http://vlabs.iitkgp.ac.in/be/index.html	You directly access this expt. from the given link.
08	Study of Differentiator and Integrator using Operational Amplifier	http://vlabs.iitkgp.ac.in/be/exp18/index.html	You directly access this expt. from the given link
09	To study Zener Diode-Voltage Regulator	http://vlabs.iitkgp.ac.in/be/exp18/index.html	You directly access this expt. from the given link
10	To study the variation of magnetic field with distance along the axis of a circular coil carrying current.	https://vlab.amrita.edu/?sub=1&brch=192&sim=972&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.

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**List and Links of the virtual experiments to be performed by the students of
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Sr. No.	Experiment	Link	Note
01	1 Frequency of AC mains by using Sono-meter.	http://amrita.olabs.edu.in/?sub=1&brch=6&sim=151&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
02	a) To set up and observe Newton's rings. b) To determine the wavelength of the given source	https://vlab.amrita.edu/?sub=1&brch=189&sim=335&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
03	a) To set up and observe Newton's rings. b) Find the refractive index of given liquid.	https://vlab.amrita.edu/?sub=1&brch=189&sim=1520&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
04	To verify the Brewster's law and to find the Brewster's angle.	https://vlab.amrita.edu/?sub=1&brch=189&sim=333&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
05	To determine the refractive index of the material of a prism.	https://vlab.amrita.edu/?sub=1&brch=281&sim=1513&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
06	To determine the dispersive power of prism.	https://vlab.amrita.edu/?sub=1&brch=281&sim=851&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
07	To determine the number of lines per millimeter of the grating using the green line of the mercury spectrum.	https://vlab.amrita.edu/?sub=1&brch=281&sim=334&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
08	To calculate the wavelength of the other prominent lines of mercury by normal incidence method using grating	https://vlab.amrita.edu/?sub=1&brch=281&sim=334&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
09	Measurement of high resistance by the method of leakage of a condenser	https://bopiitk.vlabs.ac.in/exp/condenserleakage-method/	You directly access this expt. from the given link
10	To measure the specific rotation of cane sugar using Polari-meter	https://bopiitk.vlabs.ac.in/exp/canesugarrotation/procedure.html	You directly access this expt. from the given link
11	Aim is to find the inductance of a coil using Anderson's Bridge	https://vlab.amrita.edu/?sub=1&brch=192&sim=859&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.

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**List and Links of the virtual experiments to be performed by the students of
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Sr. No.	Experiment	Link	Note
01	To construct a Colpitts oscillator and to measure its output frequency.	https://vlab.amrita.edu/?sub=1&brch=201&sim=1142&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
02	To design and construct a Hartley oscillator and to measure its output frequency.	https://vlab.amrita.edu/?sub=1&brch=201&sim=1137&cnt=1	You have to register first to Amrita Virtual Lab to access this expt
03	To design and construct a Wein bridge oscillator and to measure its output frequency	http://vlabs.iitb.ac.in/vlab/electrical/exp7/index.html	You directly access this expt. from the given link
04	To study the I-V Characteristics of LEDs	http://vlabs.iitb.ac.in/vlab/electrical/exp12/index.html	You directly access this expt. from the given link
05	Determination of Planck's constant using LED	https://vlab.amrita.edu/?sub=1&brch=195&sim=547&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
06	a) To experimentally demonstrate the concept of Millikan's oil drop experiment. b) To find the terminal velocity of the drop. c) To find the charge on a drop.	https://vlab.amrita.edu/?sub=1&brch=195&sim=357&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
07	Design and setup an astable multivibrator and calculate the time period and duty cycle of the output waveform.	https://vlab.amrita.edu/?sub=1&brch=201&sim=1167&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
08	To study Frequency response of Common Emitter Amplifier	http://vlabs.iitkgp.ac.in/be/exp13/index.html	You directly access this expt. from the given link
09	To study the emission spectra of Hydrogen, Neon and mercury vapors.	https://vlab.amrita.edu/?sub=1&brch=195&sim=359&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
10	Any two experiments from Amrita Virtual Lab	https://vlab.amrita.edu/?sub=1	You have to register first to Amrita Virtual Lab to access this expt.

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**List and Links of the virtual experiments to be performed by the students of
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Sr. No.	Experiment	Link	Note
1	To Determine Energy Band Gap of Semiconductor	https://bopiitk.vlabs.ac.in/exp/energy-band-gap/index.html	You directly access this expt. from the given link
2	To plot the characteristics of thermistor and hence find the temperature coefficient of resistance.	https://vlab.amrita.edu/?sub=1&brch=282&sim=1511&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
3	To study various crystals structures.	https://vlab.amrita.edu/?sub=1&brch=282&sim=370&cnt=1	You directly access this expt. from the given link
4	To study the phenomena of magnetic hysteresis and calculate the retentivity, coercivity and saturation magnetization of a material	https://vlab.amrita.edu/?sub=1&brch=282&sim=1507&cnt=1	You directly access this expt. from the given link
5	To determine the resistivity of semiconductors by Four probe Method.	https://vlab.amrita.edu/?sub=1&brch=282&sim=1512&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
6	To construct a Zener diode voltage regulator and measure its line and load regulation.	https://vlab.amrita.edu/?sub=1&brch=282&sim=1207&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
7	To verify the relation between thermo emf of a thermo couple and temperature difference between two hot junctions.	https://vlab.amrita.edu/?sub=1&brch=194&sim=351&cnt=1	You have to register first to Amrita Virtual Lab to access this expt.
8.	Determination of Planck's Constant by Photocell	https://vlab.amrita.edu/?sub=1&brch=195&sim=547&cnt=4	You have to register first to Amrita Virtual Lab to access this expt.