Details of Physics, Chemistry and Biology Practical of Class XI of 2022-23

1. Experiments will be done according to the given specific dates and Time
2. Students have to select any one batch each from day 1 and day 2.
3. The data sheet of each of the experiment will be given to the students
4. The questions of the Viva exam will be given to the students
5. All the practical classes will be organized under the guidance of Mr. Subhadip Ray.
6. The student has to keep the discipline in the lab and not to do any damage of the instruments of the lab. If any student makes any damage of any instrument of the lab, he/she will be penalized for that.

Batch Timings (Starting from 7th NOV 2022)

DAY 1		DAY 2
MONDAY BATCH 10.30AM-12PM: BIOLOGY 12PM-1.30PM: PHYSICS 2PM-3.30PM: CHEMISTRY **OR** **TUESDAY BATCH** 10.30AM-12PM: PHYSICS 12PM-1.30PM: CHEMISTRY 2PM-3.30PM: BIOLOGY		**THURSDAY BATCH 1** 10.30AM-12PM: BIOLOGY 12PM-1.30PM: PHYSICS 2PM-3.30PM: CHEMISTRY **OR** **FRIDAY BATCH** 10.30AM-12PM: PHYSICS 12PM-1.30PM: CHEMISTRY 2PM-3.30PM: BIOLOGY

Course Fees Details of Physics Practical of Class XI of 2022-23

One time Registration Fees: Rs. 100 [**Only for New Students**]

SUBJECTS	FOR DREAMZ STUDENTS [Onetime Payment]	FOR OUTER STUDENTS [Onetime Payment]
1 Subject [Phy/ Chem/ Bio]	3500	4000
2 Subjects	6500	7500
3 Subjects	9000	10500

Syllabus of Physics Practical of class XI

Exp 1. To find the length, breadth and height of a regular rectangular block by using vernier calipers and hence find its volume

Exp 2. To find the radius of a regular sphere by using vernier calipers and hence find its volume

Exp 3. To find the internal diameter and depth of a regular cylindrical object by using vernier calipers and hence find its volume

Exp 4. To find the diameter of a given wire by using screw gauge

Exp 5. To find the thickness of a given sheet by using screw gauge

Exp 6. To find the radius of curvature of a spherical convex surface by using the sphero-meter

Exp 7. To draw the graph between the normal reaction force and the friction force and hence to find the coefficient of friction between the block and the horizontal surface

Exp 8. To plot the 'l-T' and '$l-T^2$' graph of a simple pendulum and to find the effective length of a second's pendulum

Exp 9. To find the spring constant of a helical spring by plotting a graph between the load and the extension

Exp 10. To find the coefficient of viscosity of a given fluid of known density

Exp 11. To study the relationship between the temperature of a hot body and time by plotting a cooling curve.

Exp 12. To find the young's modulus of a given wire [Demonstration only]

Syllabus of Chemistry Practical of clss XI

Exp 1. To Determine TheConcentration and Strength of an NaOH Solution of Unknown Concentration Using a 0.1(M) Supplied HCl solution

Exp 2. To Determine The Concentration and Strength of an NaOH Solution of Unknown Concentration Using a 0.1(M) Supplied H2SO4 solution

Exp 3. To Determine The Concentration andStrength of an Na2CO3 Solution of Unknown Concentration Using a 0.1(M)Supplied HCl solution.

Exp 4. To determine the anion and one cation in a given salt by dry test tube heating.

Exp 5. To determine the anion and one cation in a given salt by flame test.

Exp 6. To determine the anion and one cation in a given salt by concentrated Sulphuric acid test.

Exp 7. To determine the anion and one cation in a given salt by dilute Sulphuric acid test.

Exp 8. To determine the anion and one cation in a given salt by KMnO4 test.

Exp 9. To determine the anion and one cation in a given salt by Borax bead test.

Syllabus of Biology Practical of class XI

Exp 1. To study and describe the given flowering plant (1. Petunia, 2. Lathyrus, 3. Asparagus, 4. Allium,) and display of whorls and anther and ovary to show number of chambers.

Exp 2. To prepare temporary stained glycerine mount of transverse section of dicot stem/monocot stem/dicot root/monocot root.

Exp 3. To demonstrate osmosis by potato osmometer.

Exp 4. To demonstrate plasmolysis and deplasmolysis in peels of Tradescantia/Rhoeo in hypotonic and hypertonic solutions using sodium chloride and potassium chloride.

Exp 5. To study the distribution of stomata on upper and lower surfaces of leaf and to calculate the stomatal index.

Exp 6. To test for glucose, sucrose, starch, proteins and fats and to show their presence in suitable plant and animal materials (e.g., wheat, potato, groundnunt, milk or other suitable materials).

Exp 7. To separate and study the plant pigments by paper chromatography.

Exp 8. (a) To test the presence of urea in urine.
(b) To detect the presence of sugar (glucose) in urine.
(c) To detect the presence of albumin in urine.
(d) To detect the presence of bile salts in urine.

Exp 9. To study the parts of a compound microscope, its proper use and maintenance.

Exp 10. Study of plant specimens and identification with reasons¬ Bacteria, Oscillatoria, Spirogyra, Rhizopus, Mushroom/ bracket fungi, Yeast, Liver wort, Moss, Fern, Pinus,
one monocotyledon, one dicotyledon and Lichens.

Exp 11. Study of characters of specimens and identification with reasons-Amoeba, Hydra, Liver fluke Ascaris, Leech, Earthworm, Prawn, Silkworm, Honey bee, Snail, Starfish, Shark, Rohu (fish), Frog, Calotes (lizard), Pigeon and Rabbit.

Exp 12. To study various stages of mitosis in animal cells (grasshopper) from permanent slide. ,

Exp 13. To identify and comment upon different types of inflorescence.

Exp 14. To Study and Identify Human Bones and Joints

- **Seats are limited in the Batch.**
- **No students will be admitted if the maximum number of seats is allotted in any batch**
- **No students will be allowed to attend the practical without taking the Admission in Lab Course**