

Practical Syllabus for Class XII (Non-Medical & Medical) 2023-24

Physics

Sec-A

1. To find the resistance of a given wire using meter bridge and hence determine the specific resistance of its material.
2. To determine the resistivity of two or three wires by plotting a graph for potential difference verses current.
3. To verify the laws of combination (series/parallel) of resistance using meter bridge.
4. To convert the given galvanometer (of known resistance the figure of merit) into an ammeter of (0-3A) range and to verify the same.
5. To determine the frequency of the a.c. mains with a sonometer.
6. To determine the resistance of galvanometer by half deflection method and to find its figure of merit.

Sec-B

7. To find the focal length of a convex mirror, using a convex lens.
8. To find the value of v for different values of u in case of concave mirror and to find its focal length.
9. a) To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
10. b) To determine the refractive index of (glass) slab using a travelling microscope.
11. To find the focal length of a convex lens by plotting graph between u and v or between $1/u$ and $1/v$.
12. To study the I-V characteristics curve of a p-n Junction diode in forward bias and reverse bias.
13. To find the focal length of a concave lens, using convex lens.
14. To find the refractive index of a liquid using convex lens and plane mirror.
15. To find the refractive index of a liquid using concave lens and plane mirror.

Chemistry

1. Surface chemistry (any one).
2. Chemical kinetics (All).
3. Thermo chemistry (Enthalpy of neutralization of HCl and NaOH)
4. Electrochemistry.
5. Chromatography (All).
6. Preparation of Inorganic compounds (Ferrous Ammonium sulphate).
7. Preparation of organic compounds (any one).
8. Test for functional group.
9. Test for carbohydrate, fat, protein.
10. Volumetric Analysis.
11. Inorganic Analysis.

Physical Education

1. .Fitness tests administration
2. Procedure for Asanas, Benefits and contradictions for any two Asanas for each lifestyle disease.
3. Procedure for administering senior citizen fitness test for 5 elderly family members.
4. Any one game of your choice out of the following list with labelled diagram of the field and equipment.
(Rules, Terminologies and skills)
 - Athletics
 - Basket Ball
 - Cricket
 - Hockey
 - Football
 - Volley Ball
 - Hand Ball
 - Badminton
 - Kabaddi
 - Kho-Kho

Biology

List of Experiments

Section-A

- A1. Study of Pollengermination on a slide.
- A2 Study the plant population density by quadrat method.
- A3 Study the plant population frequency by quadrat method.
- A4 Isolate DNA from available plant material such as spinach, green pea seeds, papaya etc.
- A5. To prepare a temporary mount of onion root tip of study mitosis.

Section-B

- B1. Study of flower adapted to pollination by different agencies (Wind, insect)
- B2. Pollen germination on stigma though permanent slide on scanning electron micrograph.
- B3. Study the identify stage of gamete development i.e. T.S. testis and T.S. ovary through permanent slides.
- B4. To study meiosis in onion bud cell or grasshopper testis through permanent slides.
- B5. Study of T.S. of blastula through permanent slides.
- B6. Mendelian inheritance using seeds of different color/sizes of any plant.
- B7. To study prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood group, ear lobes, widows peak and colour blindness.
- B8. Exercise on controlled pollination emasculation, tagging and baggaing
- B9. To identify common disease causing organisms likes Ascaris, Entameoba, Plasmodium, Ringworm through permanent slides or specimens. Comment on symptoms of diseases that they cause.
- B10. Model specimen showing symbiotic association in root modules of leguminous plant cuscuta on host, lichens.
- B11. Flash card models showing example of Homologs and analogous organs.