
FUNDAMENTAL OF SCIENCE LABORATORY – IRC 8

Semester - 1

FUNDAMENTAL OF SCIENCE LABORATORY – IRC 8A:

(Credits: Theory-01 + Practical 02)

Marks: ~~75~~⁵⁰ (ESE: 3 Hrs) = 75

Pass Marks: Th (ESE) = ~~30~~²⁰

Instruction to Question Setter for

End Semester Examination (ESE 75 marks):

There will be two group of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

Course Content:

Unit-I Elementary knowledge of Chemistry

Unit-II Safe Handling of Chemicals and Gases

1. Chemical Spills
2. Guidelines for Mercury Waste Management & Disposal
3. Guidelines for Handling of Ethidium Bromide
4. Guidelines for Bis-acrylamide
5. Guidelines for Phenol/ Chloroform
6. Compressed Gas Safety
7. Safe Handling of Cryogenic liquids
8. Handling of Dry Ice
9. Guidelines for Imaging Stations

Unit-III Specialty Laboratories

1. Working with Radioactive Materials
2. Laser Lab

Unit-IV Emergency Response

1. Fires
 2. Accident Reporting
 3. Emergency Contact numbers
 4. Committees
-

FUNDAMENTAL OF SCIENCE LABORATORY - IRC 8A LAB:Marks: Pr (ESE: 3Hrs) ~~25~~ **50**Pass Marks: Pr (ESE) ~~10~~ **20***Instruction to Question Setter for*End Semester Examination (ESE):

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment/Activities = ~~15~~ **40** marks
Practical record notebook = 05 marks
Viva-voce = 05 marks

PRACTICALS:**60 Lectures****Laboratory Instruments Chemistry**

Safe Handling, Cleaning and storage of common apparatus.

1. Test tube, Beakers, Erlenmeyer flask, Volumetric flask, graduated cylinder, Pipette, Graduated pipette, Disposable pipette, Burette, Burette clamp. Funnel, Buchner Funnel, Buchner funnel vacuum filtration setup,
 2. Clamp, Test tube holder, Bunsen burner, Petri dish, Glass rod, Graduated Dropper Tongs, Utility clamp, Spot test plate, Tripod for Bunsen burner, Wash bottle, Spatula, Round-bottom flasks, Glass Condenser, Filter paper Separatory funnel, Filtering flask, etc
-