No.: UHF/EVS/3-63/2024/-2356 Department of Environmental Science -cum-Work Centre IGNOU Dr. YS Parmar University of Horticulture & Forestry, Nauni-173 230, Distt. Solan (H.P.)

Proposed schedule for conducting practical Examination for the course MEVL 011, Lab course-1, Environmental Science w.e.f <u>18th March, 2024 to 31st March 2024</u> (First Batch)

Venue: Department of Environmental Science, Dr YSP UHF, Nauni, Solan

| Davi | HF, Nauni, Solan | Hand on | | |
|------|------------------|--|--------------------|--|
| Day | Date | Practical exercise | Theory | Hand on Exercises/ Lab Practical |
| 1 | 18/03/2024 | ✓ Determination of minimum size of the quadrat by 'species-area-curve' method | | |
| 2 | 19/03/2024 | ✓ Determination of frequency of species by line transect method and point frame method ✓ Determination of Relative Density, Frequency and Abundance of different species present in community | | |
| 3 | 20/03/2024 | and calculation of IVI ✓ Measures of central tendency, dispersion, skewness and kurtosis | | |
| | | ✓ Correlation and regression analysis; analysis of variance | | |
| 4 | 21/03/2024 | ✓ Determination of standing crop and biomass in Terrestrial ecosystem | Morning Session | Evening Session |
| 5 | 22/03/2024 | ✓ Study on the abiotic and biotic components of an aquatic ecosystem | (9:30 am -1:30 pm) | (2:00 -6:00 pm) |
| 6 | 23/03/2024 | ✓ Estimation of net primary productivity by harvest method in grassland ecosystem | | |
| 7 | 24/03/2024 | ✓ Estimation of net primary productivity using light and dark bottle method in aquatic ecosystem | | |
| 8 | 25/03/2024 | ✓ Estimation of biodiversity indices✓ Weather monitoring and data analysis | | |
| 9 | 26/03/2024 | ✓ Study on soil profile and physical characteristics of soil | | |
| 10 | 27/03/2024 | ✓ Determination of soil organic carbon | | |
| 11 | 28/03/2024 | ✓ Determination of available Nitrogen in soil | | |
| 12 | 29/03/2024 | ✓ Preparation of climatic maps and diagram ✓ Identification of Igneous, Sedimentary and Metamorphic rocks | | |
| 13 | 30/03/2024 | ✓ Determination of soil moisture content | | |
| 14 | 31/03/2024 | ✓ Determination of soil pH and electrical conductivity ✓ Preparation of station based wind rose | | |
| | | ✓ Arial photographs interpretations | | |

Proposed schedule for conducting practical Examination for the course MEVL 012, Lab course-2, Environmental Science w.e.f 1st April, 2024 to 14th April, 2024

(First Batch)

Venue: Department of Environmental Science, Dr YSP UHF, Nauni, Solan

| Day | Date | Practical Exercise | Theory | Hand on Exercises/ Lab Practical |
|-----|------------|--|--------------------|--|
| 1 | 01/04/2024 | ✓ Determination of Electrical Conductance of a Water Sample | | |
| 2 | 02/04/2024 | ✓ Determination of pH of a Water Sample | | |
| 3 | 03/04/2024 | ✓ Determination of Turbidity in Water | | |
| 4 | 04/04/2024 | ✓ Determination of Total Solids and Total Dissolved Solids in Water ✓ Determination of Hardness in Water Sample | | |
| 5 | 05/04/2024 | ✓ Determination of Biological Oxygen Demand in Water | | |
| 6 | 06/04/2024 | ✓ Determination of Dissolved Oxygen in Water | | |
| 7 | 07/04/2024 | ✓ Determination of Chemical Oxygen Demand in Water | | |
| 8 | 08/04/2024 | ✓ Determination of Chloride in Water Samples | Morning Session | Evening Session |
| | | ✓ Determination of Residual Chlorine in Water | (9:30 am -1:30 pm) | (2:00 -6:00 pm) |
| 9 | 09/04/2024 | ✓ Determination of Sulphates in Water | | |
| 10 | 10/04/2024 | ✓ Determination of Phosphate in Water | | |
| 11 | 11/04/2024 | ✓ Determination of Nitrate Nitrogen in water sample | | |
| 12 | 12/04/2024 | ✓ Determination of Nitrite Nitrogen in water sample | | |
| 13 | 13/04/2024 | ✓ Determination of Fluoride in Water | | |
| 14 | 14/04/2024 | ✓ Determination of Oil and Grease in Water | | |

Proposed schedule for conducting practical Examination for the course MEVL 013, Lab course-3, Environmental Science w.e.f 15th April, 2024 to 28th April, 2024 (*First Batch*)

Venue: Department of Environmental Science, Dr YSP UHF, Nauni, Solan

| Day | Date | Practical exercise | Theory | Hand on |
|-----|------------|---|--------------------|--------------------------|
| Day | Date | Practical exercise | meory | Exercises/ Lab Practical |
| 1 | 15/04/2024 | ✓ Determination of Suspended Particulate Matter (SPM) in Ambient Air Using High Air Sampler (HVS) ✓ Isolation and Enumeration of Air Borne Microorganisms by All Glass Impinger Technique | | |
| 2 | 16/04/2024 | ✓ Determination of Sodium and Potassium in Water Using Flame Photometer | | |
| 3 | 17/04/2024 | ✓ Determination of Trace Metals in Environmental Samples using Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) | | |
| 4 | 18/04/2024 | ✓ Composting of Biodegradable Waste and determination of compost quality ✓ Determination of Biogas Production from Organic Waste by Liquid Displacement Method | | |
| 5 | 19/04/2024 | ✓ Determination of Pesticides in Environmental Samples Using Gas Chromatography | Morning Session | Evening Session |
| | | ✓ Separation of Amino Acids by Thin Liquid Chromatography | (9:30 am -1:30 pm) | (2:00 -6:00 pm) |
| 6 | 20/04/2024 | ✓ Determination of Effect of Industrial Effluents on Seed Germination and Seedling Growth of Rice and Wheat ✓ Determination of Alcoholic fermentation from Grape Juice by Saccharomyces cerevisiae | | |
| 7 | 21/04/2024 | ✓ Sterilization, Media Preparation and Isolation of Pure Culture ✓ Determination of Gram Staining of Bacterial Sample | | |
| 8 | 22/04/2024 | ✓ Isolation and Characterization of Bacteria from Soil Samples ✓ Isolation and Characterization of Actinomycetes from Soil Samples | | |
| 9 | 23/04/2024 | ✓ Isolation of Pure Culture by Streak Plate Method, Pour Plate Method and Spread Plate Method | | |
| 10 | 24/04/2024 | ✓ Isolation and Characterization of Fungi from Soil Samples | | |
| 11 | 25/04/2024 | ✓ Determination of Metabolic Activities of Bacteria through Biochemical Tests | | |
| 12 | 26/04/2024 | ✓ Determination of Biological Activity of Soil by Dehydrogenase Assay | | |
| 13 | 27/04/2024 | ✓ Isolation of Bio-Surfactant Producing Bacteria from Environmental Samples | | |
| 14 | 28/04/2024 | ✓ Detection of Coliform in Water Samples by Membrane Filter Technique | | |