

Comprehensive
**LABORATORY MANUAL IN
BIOLOGY**

Completely
Revised
New Edition
in
4-colour



**CLASS
XII**

Comprehensive Biology Lab Manual Class 12 Ncert

Arihant Experts



Comprehensive Biology Lab Manual Class 12 Ncert:

Comprehensive Biology Activities Vol.I XI Dr. J. P. Sharma,2010 **Annual Report** India. Department of Information Technology,2010 Practical/Laboratory Manual Biology Class XII based on NCERT guidelines by Dr. Sunita Bhagia & Megha Bansal Dr. Sunita Bhagia ,Megha Bansal,2020-06-22

A List of Experiments

1 Study pollen germination on a slide

2 Collect and study soil from at least two different sites and study them for texture moisture content pH and water holding capacity

Correlate with the kinds of plants found in them

3 Collect water from two different water bodies around you and study them for pH clarity and presence of any living organism

4 Study the presence of suspended particulate matter in air at two widely different sites

5 Study the plant population density by quadrat method

6 Study the plant population frequency by quadrat method

7 Prepare a temporary mount of onion root tip to study mitosis

8 Study the effect of different temperatures and three different pH on the activity of salivary amylase on starch

9 Isolate DNA from available plant material such as spinach green pea seeds papaya etc

B Study observation of the following

Spotting

1 Flowers adapted to pollination by different agencies wind insects birds

2 Pollen germination on stigma through a permanent slide

3 Identification of stages of gamete development i e T S of testis and T S of ovary through permanent slides from grasshopper mice

4 Meiosis in onion bud cell or grasshopper testis through permanent slides

5 T S of blastula through permanent slides

Mammalian

6 Mendelian inheritance using seeds of different colour sizes of any plant

7 Prepare pedigree charts of any one of the genetic traits such as rolling of tongue blood groups ear lobes widow s peak and colour blindness

8 Controlled pollination emasculation tagging and bagging

9 Common disease causing organisms like Ascaris Entamoeba Plasmodium any fungus causing ringworm through permanent slides or specimens

Comment on symptoms of diseases that they cause

10 Two plants and two animals model virtual images found in xeric conditions

Comment upon their morphological adaptations

11 Two plants and two animals models virtual images found in aquatic conditions

Comment

Content

EXPERIMENTS

1 To study pollen germination on slide

2 To study the texture moisture content pH and waterHolding Capacity of soils collected from different sites

3 To collect water from different water bodies and study them for pH Clarity and presence of living organisms

4 To study the presence of suspended particulate matter in air at different sites

5 To study plant population density by quadrat method

6 To study plant population frequency by quadrat method

7 To study various stages of mitosis in root tip of onion by preparing slide in acetocarmine

8 To study effect of different temperature and three different pH onthe activity of salivary amylase

9 To study the isolation of DNA from available plant material such as spinach green pea seeds papaya etc

SPOTTING

1 Pollination in flowers

2 Pollen germination

3 Slides of mammal tissues

4 Meiosis cell division

5 T S of Blastula

6 Mendel s inheritance laws

7 Pedigree chart

8 Controlled pollination

9 Common disease causing organisms

10 Xerophytic adaptation

11 Aquatic adaptation

Comprehensive Biology XII , **Comprehensive Laboratory Manual in Biology XII** Dr. J. P. Sharma,2011-04-01 NCERT Biology Practical/Lab Manual/Project Class 12 Dr. Sunita Bhagiya, ,Megha

Bansal,2024-09-29 EXPERIMENTS 1 To study pollen germination on slide 2 To study plant population density by quadrat method 3 To study plant population frequency by quadrat method 4 To study various stages of mitosis in root tip of onion by preparing slide in acetocarmine 5 To study the isolation of DNA from available plant material such as spinach green pea seeds papaya etc SPOTTING 1 Pollination in flowers 2 Pollen germination 3 Slides of mammal tissues 4 Meiosis cell division 5 T S of Blastula 6 Mendel s inheritance laws 7 Pedigree chart 8 Controlled pollination 9 Common disease causing organisms 10 Symbolic Association in root nodules 11 Homologous and analogous organs PROJECTS 1 To study the different means of pollination 2 To study infectious diseases of humans 3 To study birth rate and death rate In your village or town 4 To study genetic disorders 5 To study malaria causes and disorders 6 To study causes symptoms and diagnosis of cancer 7 To study causes symptoms and diagnosis of AIDS 8 To study the applications and importance of Biotechnology 9 At the time of COVID 19 what kind of problems did your acquaintance have to face when he got covid 10 To study DRUG ABUSE 11 Name the medicinal drugs which are banned all over the world 12 Describe the response of biotic factors to abiotic factors in the environment 13 Biodiversity and Conservation Practices in Indian Culture 14 What has been the effect on pollution control after covid 15 To study Management of sewage and waste materials 16 To study the role of micro organisms in human welfare 17 To study about harmful micro organisms VIVA VOCE FOR PRACTICE **EduGorilla's CBSE Class 12th**

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