

LABORATORY MANUAL

Class XII

PHYSICS



Ncert Lab Manual Class 12

Career Point Kota



Ncert Lab Manual Class 12:

CBSE MCQs Chapterwise For Term I & II, Class 12, Mathematics Career Point Kota, 2021-10-12 Strictly as per the new term wise syllabus for Board Examinations to be held in the academic session 2021 22 for class 12 Multiple Choice Questions based on new typologies introduced by the board Stand Alone MCQs MCQs based on Assertion Reason Case based MCQs Include Questions from CBSE official Question Bank released in April 2021 Answer key with Explanations Sample Paper on the latest pattern of Term 1 exam **CBSE Class 12th Maths (10 Most likely Question Papers with Solution)**

By Career Point Kota Career Point Kota, 2020-07-28 The CBSE has made certain changes in the assessment structure from the session 2019 20 onwards In the new scheme of examination CCE and term system has been replaced with the Internal Assessment Single Annual Exam by CBSE itself Single exam conducted by CBSE will carry 80 marks whereas 20 marks are left to the schools for internal assessment CBSE has issued detailed guidelines on how the internal marks will be divided among different activities From 2019 onwards there will be internal choices in board examinations with increased internal options in the question paper Considering this change now a student has to prepare accordingly for board examinations The new assessment format brought with it excitement as well as anxiety And to help them prepare and excel in their CBSE board examination Career Point Kota has developed a series of 10 Most Likely Question Papers with Solutions The Key Features of Most Likely Question Papers with Solutions Series New OBJECTIVE TYPE question in each paper Syllabus of CBSE 2019 20 Based on the latest CBSE Syllabus Pattern Mind map of each chapter is given to visualize and help acquire a better understanding Important terms facts formulae and quick revision tips are given Covers questions asked in previous year board exams Toppers Answer Sheet as released by CBSE to understand the scoring technique We hope this book will gratify students need for the new CBSE pattern board exam and smoothen their path to success We wish to utilize the opportunity to place on record our special thanks to all the members of the Content Development team for their efforts to create this wonderful book Oswaal CBSE Question Bank Class 12 Mathematics, Chapterwise and Topicwise Solved Papers For Board Exams 2025

Oswaal Editorial Board, 2024-01-23 Description of the product 100% Updated Syllabus Fully Solved Board Papers we have got you covered with the latest and 100% updated curriculum Crisp Revision with Topic wise Revision Notes Smart Mind Maps Mnemonics Extensive Practice with 3000 Questions Board Marking Scheme Answers to give you 3000 chances to become a champ Concept Clarity with 1000 Concepts 50 Concept Videos for you to learn the cool way with videos and mind blowing concepts NEP 2020 Compliance with Art Integration Competency Based Questions for you to be on the cutting edge of the coolest educational trends GURUKUL CBSE CHAPTER WISE BOARD QUESTIONS ANURAG SINGH, 2020-04-01 THIS BOOK CONSIST OF CBSE CHAPTER WISE BOARD QUESTIONS FROM 2008 2019

Oswaal CBSE Sample Question Papers Class 12 Mathematics (For 2024 Exam) Oswaal Editorial Board, 2023-08-03 Description of the product Fresh Relevant with 2024 CBSE SQP Fully Solved Analysed Score Boosting Insights with 500

Questions 1000 Concepts Insider Tips Techniques with On Tips Notes Mind Maps Mnemonics Exam Ready to Practice with 10 Highly Probable SQPs with Actual Board Answer sheets CBSE Class 12th Chemistry (10 Most Likely Question Papers with Solution) By Career Point Kota Career Point Kota, 2020-07-28 The CBSE has made certain changes in the assessment structure from the session 2019 20 onwards In the new scheme of examination CCE and term system has been replaced with the Internal Assessment Single Annual Exam by CBSE itself Single exam conducted by CBSE will carry 80 marks whereas 20 marks are left to the schools for internal assessment CBSE has issued detailed guidelines on how the internal marks will be divided among different activities From 2019 onwards there will be internal choices in board examinations with increased internal options in the question paper Considering this change now a student has to prepare accordingly for board examinations The new assessment format brought with it excitement as well as anxiety And to help them prepare and excel in their CBSE board examination Career Point Kota has developed a series of 10 Most Likely Question Papers with Solutions The Key Features of Most Likely Question Papers with Solutions Series New OBJECTIVE TYPE question in each paper Syllabus of CBSE 2019 20 Based on the latest CBSE Syllabus Pattern Mind map of each chapter is given to visualize and help acquire a better understanding Important terms facts formulae and quick revision tips are given Covers questions asked in previous year board exams Toppers Answer Sheet as released by CBSE to understand the scoring technique We hope this book will gratify students need for the new CBSE pattern board exam and smoothen their path to success We wish to utilize the opportunity to place on record our special thanks to all the members of the Content Development team for their efforts to create this wonderful book INNOVATIVE SCIENCE TEACHING RADHA MOHAN, 2007-02-07 Science teaching has recently evolved as a blend of conventional methods and modern aids owing to the changing needs and techniques of education This updated Third Edition aims to strike this balance between modern teaching methods and time tested theories All the existing chapters are suitably updated and new chapters on theories of learning teaching models and statistics are included in the text Checklists are provided to help teachers handpick appropriate material from the vast available resources The introductory chapter on statistics should help them interpret and analyze the test scores of their students THIS NEW EDITION FEATURES Four new chapters Statistics for Science Teacher Theories of Learning Models of Teaching and Constructivism in Science Education Updated e learning materials and website addresses relevant to science teaching and teachers Completely revised chapters and elaborate coverage of all aspects of modern teaching This edition of Innovative Science Teaching is designed for the undergraduate and postgraduate students of education specializing in science teaching It can also be used as reference by physical science teachers and teacher trainees *Practical/Laboratory Manual Chemistry Class XII based on NCERT guidelines by Dr. S. C. Rastogi, Er. Meera Goyal* Dr. S. C. Rastogi ,Er. Meera Goyal, 2020-06-22 A Surface Chemistry 1 To prepare colloidal solution sol of starch 2 To prepare a colloidal solution of egg albumin 3 To prepare colloidal solution of gum 4 To prepare colloidal solution of aluminium hydroxide $Al(OH)_3$ 5 To prepare

colloidal solution of ferric hydroxide Fe(OH)_3 6 To prepare colloidal solution of arsenious sulphide As_2S_3 7 To purify a freshly prepared sol by dialysis 8 To compare the effectiveness of different common oils Castor oil cotton seed oil coconut oil kerosene oil mustard oil in forming emulsions

Viva Voce B Chemical Kinetics 1 To study the effect of concentration on the rate of reaction between sodium thiosulphate and hydrochloric acid 2 To study the effect of temperature on the rate of reaction between sodium thiosulphate and hydrochloric acid 3 To study the rate of reaction of iodide ions with hydrogen peroxide at different concentrations of iodide ions 4 To study the rate of reaction between potassium iodate KIO_3 and sodium sulphite Na_2SO_3 using starch solution as indicator

Viva Voce C Thermochemistry 1 Determine the enthalpy of dissolution of copper sulphate $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ in water at Room temperature 2 To determine the enthalpy of neutralization of the reaction between HCl and NaOH 3 To determine enthalpy change during the interaction between acetone and chloroform

Viva Voce D Electrochemistry 1 To study the variation of cell potential in $\text{Zn}|\text{Zn}^{2+}||\text{Cu}^{2+}|\text{Cu}$ with change in concentration of electrolytes CuSO_4 or ZnSO_4 at room temperature

Viva Voce E Chromatography 1 To separate the coloured components pigment present in the given extract of leaves and flowers by ascending paper chromatography and find their R_f values 2 To separate the coloured components present in the mixture of red and blue inks by ascending paper chromatography and find their R_f values 3 To separate Co^{2+} and Ni^{2+} ions present in the given mixture by using ascending paper chromatography and determine their R_f values

Viva Voce F Preparation of Inorganic Compounds 1 Preparation of double salt of ferrous ammonium sulphate Mohr's salt from ferrous sulphate and ammonium sulphate 2 To prepare a pure sample of potash alum fitkari 3 Preparation of crystals of potassium ferric oxalate or potassium trioxalato ferrate III

Viva Voce G Preparation of Organic Compounds 1 Preparation of iodoform from ethyl alcohol or acetone 2 Preparation of acetanilide in laboratory 3 Preparation of *p*-Naphthol aniline dye 4 To prepare a pure sample of dibenzalacetone 5 To prepare a pure sample of *p*-nitro acetanilide

Viva Voce H Tests for the Functional Groups Present in Organic Compounds

Viva Voce I Study of Carbohydrates Fats and Proteins 1 To study simple reactions of carbohydrate 2 To study simple reactions of fats 3 To study simple reactions of proteins 4 To investigate presence of carbohydrates fats and proteins in food stuffs

Viva Voce J Volumetric Analysis 1 To prepare 250 ml of M/10 solution of oxalic acid 2 To prepare 250 ml of M/10 solution of ferrous ammonium sulphate 3 Prepare M/20 solution of oxalic acid with its help find out the molarity and strength of the given solution of potassium permanganate 4 Prepare M/20 solution of Mohr's salt using this solution determine the molarity and strength of potassium permanganate solution

Viva Voce K Qualitative Analysis

Viva Voce INVESTIGATORY PROJECTS 1 To study the presence of oxalate ions in guava fruit at different stages of ripening 2 To study the quantity of casein present in different samples of milk 3 Preparation of soyabean milk and its comparison with natural milk with respect to curd formation effect of temperature etc 4 To study the effect of potassium bisulphite as food preservative at various concentrations 5 To study the digestion of starch by salivary amylase and the effect of pH and temperature on it 6 To study and compare the rate of fermentation of the following materials wheat

flour gram flour potato juice and carrot juice 7 To extract essential oils present in saunf aniseed ajwain corum illaichi cardomom 8 To detect the presence of adulteration in fat oil and butter 9 To investigate the presence of NO₂ in brinjal

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

Practical/Laboratory Manual Chemistry Class XI based on NCERT guidelines by Dr. S. C. Rastogi & Er. Meera Goyal Dr. S. C. Rastogi , Er. Meera Goyal,2020-06-23 An Excellent Book in Accordance with the latest syllabus for Class 11 Prescribed

by CBSE NCERT and Adopted by Various State Education Boards

A Basic Laboratory Techniques

- 1 To cut a glass tube or glass rod
- 2 To bend the glass rod at an angle
- 3 To draw a glass jet from a glass tube
- 4 To bore a cork and fit a glass tube into it

B Characterisation and Purification of Chemical Substances

- 1 To determine the melting point of the given unknown organic compound and its identification simple laboratory technique
- 2 To determine the boiling point of a given liquid when available in small quantity simple laboratory method
- 3 To prepare crystals of pure potash alum $K_2SO_4 \cdot Al_2(SO_4)_3 \cdot 24H_2O$ from the given impure sample
- 4 To prepare the pure crystals of copper sulphate from the given crude sample
- 5 To prepare pure crystals of benzoic acid from a given impure sample

C Measurement of pH Values

- 1 To determine the pH value of vegetable juices fruit juices tap water and washing soda by using universal pH paper
- 2 To determine and compare the pH values of solutions of strong acid HCl and weak acid CH_3COOH of same concentration
- 3 To study the pH change in the titration of strong base Vs strong acid by using universal indicator paper
- 4 To study the pH change by common ion CH_3COO^- ion in case of weak acid CH_3COOH
- 5 To determine the change in pH value of weak base NH_4OH in presence of a common ion NH_4^+

D Chemical Equilibrium

- 1 To study the shift in equilibrium between ferric ions and thiocyanate ions by changing the concentrations of either of the ions
- 2 To study the shift in equilibrium between $Co(H_2O)_6^{2+}$ and Cl^- ions by changing the concentrations of either of the ions

E Quantitative Analysis

- 1 To prepare M 10 oxalic acid solution by direct weighing method
- 2 To prepare M 10 solution of sodium carbonate by direct weighing method
- 3 To determine the strength of given solution of sodium hydroxide by titrating it against N 10 or M 20 solution of oxalic acid
- 4 To determine the strength of a given solution of hydrochloric acid by titrating it against a standard N 10 or M 20 sodium carbonate solution

F Qualitative Analysis

- 1 Analysis of Anions
- 2 Analysis of Cations

G Detection of Elements in Organic Compounds

- 1 To detect the presence of nitrogen sulphur and halogens in a given organic compound by Lassaigne's test
- 2 To detect the presence of nitrogen sulphur and halogens in the given organic compound sample number by Lassaigne's test

INVESTIGATORY PROJECTS

A Checking of Bacterial Contamination in Water

- 1 To check the bacterial contamination in drinking water by testing sulphide ions

B Methods of Water Purification

- 1 To purify water from suspended impurities by using sedimentation
- 2 To purify water by boiling
- 3 To purify water by distillation method
- 4 To purify water by reverse osmosis technique
- 5 To purify water by GAC method
- 6 To purify water by bleach treatment
- 7 To purify water by oxidising agent
- 8 To purify water by ozone treatment method

C Water Analysis

- 1 To test the hardness of different water samples

D Foaming Capacity of Various Soaps

- 1 To compare the foaming capacity of different washing soaps
- 2 To study the effect of addition of sodium carbonate on foaming capacity of washing soap

E Tea Analysis

- 1 To study the acidity of different samples of tea leaves tea by using pH paper

F Analysis of Fruits and Vegetable Juices

- 1 To analyse the fruit and vegetable juices for the constituent present in them

G Rate of Evaporation

- 1 To study the rate of evaporation of different liquids

H Effect of Acids and Bases on Tensile Strength of Fibres

- 1 To compare the tensile strength of natural fibres and synthetic fibres
- 2 To study the effect of acids and bases on

tensile strength of different fibres Log Antilog Table *Complete Science Laboratory Manual CBSE For Class 10* Education Experts,2019-10 **Annual Report** India. Department of Information Technology,2010 **Complete Mathematics Laboratory Manual CBSE For Class 9** Education Experts,2019-10 Chemistry Lab Manual Class XII Follows the Latest CBSE Syllabus and Other State Board Following the CBSE Curriculum. Edugorilla Prep Experts,2022-07-05 Chemistry is all about conducting various experiments and having a deep study about them This deep analysis and study cannot solely be done with theories and practical experiments are necessary for better skill development of the students Considering this every year CBSE conducts the chemistry practicals in addition to the theory examinations This class 12 chemistry lab manual contains all the essential information that the students will require while commencing the practicals CBSE class 12th chemistry lab manual has been prepared strictly according to CBSE guidelines which follows the NCERT and other State Board curriculum All the experiments in this lab manual have been given in a simple lucid and interactive manner The theory given with each experiment gives complete knowledge of each term concept and definition in order to provide a compact knowledge to the students at one place Viva Voce questions are given with each experiment to test students understanding of related experiments Mr Kaushalesh Dwivedi is the author of this complete lab activity book for class 12 chemistry All the lab based experiments have well labeled diagrams which clearly demonstrate the details of the apparatus that are used the correct way of handling Laboratory apparatus and perform the experiments methodically The basic purpose of this lab manual is to provide the students with appropriate guidance so that they can easily understand carry out and document the experiments in the Science Laboratory The Lab Manual comes with practical lessons followed by Lab experiments after each chapter projects and Notebook for jotting down all the essential information The aim of this Science Lab Manual is to help class 12 students to prepare and understand the complex chemistry concepts through experimental approach by utilizing pedagogically enhanced content of the lab manual and with a compact knowledge base for improving their analytical experimental skills and learning abilities **Practical/Laboratory Manual Biology Class XI based on NCERT guidelines by Dr. Sunita Bhagia & Megha Bansal** Dr. Sunita Bhagia ,Megha Bansal,2020-06-23 An Excellent Book in Accordance with the latest syllabus for Class 11 Prescribed by CBSE NCERT and Adopted by Various State Education Boards

Introduction 1 Necessary equipments chemicals and other things for practical work 2 General Instructions for practical work 3 Special Instructions for practical note book Drawing and Recording 4 Special Instructions for spotting EXPERIMENTS 1 To study and describe the flowering plant belonging to family one from each of the families a Solanaceae b Fabaceae c Liliaceae 2 To prepare temporary slide of transverse section of dicot monocot stem dicot monocot root 3 To study osmosis by potato osmometer 4 To study of plasmolysis in epidermal peel of Tradescantial or Rhoeo leaf 5 To study the distribution of stomata on the upper and lower surface of a leaf 6 To compare the rate of transpiration in upper and lower surface of the leaf 7 To test the presence of sugars Glucose Sucrose and Starch proteins and fats and to detect their presence in suitable plant and

animal materials 8 To study the separation of plant pigments by paper chromatography 9 To study the rate of respiration in flower buds leaf tissue and germinating seeds 10A To test presence of urea in urine 10B To test presence of sugar in urine 10C To detect presence of albumin in urine 10D To test urine for presence of bile salt SPOTTING 1 Study of compound microscope 2 To study the plant specimen and identification with reasons Bacteria Oscillatoria Spirogyra Rhizopus Mushroom Yeast Liverwort Moss Fern Pine One Monocotyledonous plant One dicotyledonous plant and one Lichen 3 Study of animal specimens 1 Amoeba 2 Hydra 3 Fasciola Hepatica Liver fluke 4 Ascaris Lumbricoides 5 Hirudinaria Granulosa 6 Pheretima Posthuma 7 Palaemon 8 Bombyx Mori 9 Apis Indica Honeybee 10 Pila Globosa Snail 11 Asterias Starfish 12 Scoliodon Dogfish Shark 13 Labeo Rohita Rohu 14 Rana Tigrina Frog 15 Hemidactylus Lizard 16 Columba Livia Pigeon 17 Orytolagus Cuniculus Rabbit 4A To study the plant tissues Palisade cells Guard cells Parenchyma Collenchyma Sclerenchyma Xylem and Phloem through prepared slide 4B To study the animal tissue squamous epithelium muscles fibres through prepared slide 4C To study mammalian blood smear by temporary permanent slide 5 Study of mitosis in root tip of onion 6 Study of different modification in root stem and leaves 7 To study and identify different types of inflorescence Racemose and Cymose 8 To study imbibition in seed raisins 9 To demonstrate that anaerobic respiration take place in the absence of air 10 To study human skeleton and joints 11 To study the external features of cockroach with help of model or chart **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 **Practical/Laboratory Manual Chemistry Class - XI** Er. Meera Goyal, 2021-05-29 1 Basic Laboratory Techniques 1 To cut a glass tube or glass rod 2 To bend the glass rod at an angle 3 To

draw a glass jet from a glass tube 4 To bore a cork and fit a glass tube into it Viva Voce 2 Characterisation and Purification of Chemical Substances 1 To determine the melting point of the given unknown organic compound and its identification simple laboratory technique Viva Voce 2 To determine the boiling point of a given liquid when available in small quantity simple laboratory method Viva Voce 3 To prepare crystals of pure potash alum $K_2SO_4 \cdot Al_2(SO_4)_3 \cdot 24H_2O$ from the given impure sample 4 To prepare the pure crystals of copper sulphate from the given crude sample 5 To prepare pure crystals of benzoic acid from a given impure sample Viva Voce 3 Measurement of pH Values 1 To determine the pH value of vegetable juices fruit juices tap water and washing soda by using universal pH paper 2 To determine and compare the pH values of solutions of strong acid HCl and weak acid CH_3COOH of same concentration 3 To study the pH change in the titration of strong base Vs strong acid by using universal indicator paper 4 To study the pH change by common ion CH_3COO^- ion in case of weak acid CH_3COOH 5 To determine the change in pH value of weak base NH_4OH in presence of a common ion NH_4^+ Viva Voce 4 Chemical Equilibrium 1 To study the shift in equilibrium between ferric ions and thiocyanate ions by changing the concentrations of either of the ions 2 To study the shift in equilibrium between $Co(H_2O)_6^{2+}$ and Cl^- ions by changing the concentrations of either of the ions Viva Voce 5 Quantitative Analysis 1 To prepare M 10 oxalic acid solution by direct weighing method 2 To prepare M 10 solution of sodium carbonate by direct weighing method 3 To determine the strength of given solution of sodium hydroxide by titrating it against N 10 or M 20 solution of oxalic acid 4 To determine the strength of a given solution of hydrochloric acid by titrating it against a standard N 10 or M 20 sodium carbonate solution Viva Voce 6 Qualitative Analysis Analysis of Anions Analysis of Cations Viva Voce 7 Detection of Elements in Organic Compounds 1 To detect the presence of nitrogen sulphur and halogens in a given organic compound by Lassaigne's test 2 To detect the presence of nitrogen sulphur and halogens in the given organic compound sample number by Lassaigne's test Viva Voce INVESTIGATORY PROJECTS 1 Checking of Bacterial Contamination in Water 1 To check the bacterial contamination in drinking water by testing sulphide ions Viva Voce 2 Methods of Water Purification 1 To purify water from suspended impurities by using sedimentation 2 To purify water by boiling 3 To purify water by distillation method 4 To purify water by reverse osmosis technique 5 To purify water by GAC method 6 To purify water by bleach treatment 7 To purify water by oxidising agent 8 To purify water by ozone treatment method Viva Voce 3 Water Analysis 1 To test the hardness of different water samples Viva Voce 4 Foaming Capacity of Various Soaps 1 To compare the foaming capacity of different washing soaps 2 To study the effect of addition of sodium carbonate on foaming capacity of washing soap Viva Voce 5 Tea Analysis 1 To study the acidity of different samples of tea leaves tea by using pH paper Viva Voce 6 Analysis of Fruits and Vegetable Juices 1 To analysis the fruit and vegetable juices for the constituent present in them Viva Voce 7 Rate of Evaporation 1 To study the rate of evaporation of different liquids IViva Voce 8 Effect of Acids and Bases on Tensile Strength of Fibres 1 To compare the tensile strength of natural fibres and synthetic fibres 2 To study the effect of acids and bases on tensile strength of

different fibres Viva Voce *Practical/Laboratory Manual Chemistry Class XII based on NCERT guidelines* Dr. S. C. Rastogi, ,Er. Meera Goyal,2022-02-25 An Excellent Book in Accordance with the latest syllabus for class XII Prescribed by CBSE NCERT and Adopted by Various State Education Boards

A Surface Chemistry

- 1 To prepare colloidal solution of starch
- 2 To prepare a colloidal solution of egg albumin
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- 5 To prepare colloidal solution of ferric hydroxide Fe(OH)_3
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- 7 To purify a freshly prepared sol by dialysis
- 8 To compare the effectiveness of different common oils: Castor oil, cotton seed oil, coconut oil, kerosene oil, mustard oil in forming emulsions

Viva Voce

B Chemical Kinetics

- 1 To study the effect of concentration on the rate of reaction between sodium thiosulphate and hydrochloric acid
- 2 To study the effect of temperature on the rate of reaction between sodium thiosulphate and hydrochloric acid
- 3 To study the rate of reaction of iodide ions with hydrogen peroxide at different concentrations of iodide ions
- 4 To study the rate of reaction between potassium iodate KIO_3 and sodium sulphite Na_2SO_3 using starch solution as indicator

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C Thermochemistry

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Viva Voce

F Preparation of Inorganic Compounds

- 1 Preparation of double salt of ferrous ammonium sulphate (Mohr's salt) from ferrous sulphate and ammonium sulphate
- 2 To prepare a pure sample of potash alum (fitkari)
- 3 Preparation of crystals of potassium ferric oxalate or potassium trioxalate ferrate (III)

Viva Voce

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- 1 Preparation of iodoform from ethyl alcohol or acetone
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- 2 To prepare 250 ml of $\text{M}/10$ solution of ferrous ammonium sulphate
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K Qualitative Analysis

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INVESTIGATORY PROJECTS 1 To study the presence of oxalate ions in guava fruit at different stages of ripening 2 To study the quantity of caseine present in different samples of milk 3 Preparation of soyabean milk and its comparison with natural milk with respect to curd formation effect of temperature etc 4 To study the effect of potassium bisulphite as food preservative at various concentrations 5 To study the digestion of starch by salivary amylase and the effect of pH and temperature on it 6 To study and compare the rate of fermentation of the following materials wheat flour gram flour potato juice and carrot juice 7 To extract essential oils present in saunf aniseed ajwain corum illaichi cardomom 8 To detect the presence of adulteration in fat oil and butter 9 To investigate the presence of NO₂ in brinjal

Biology Lab Manual Class XII
As Per the Latest CBSE Syllabus and Other State Board Following the Curriculum of CBSE. Edugorilla Prep
Experts, 2022-07-05 The biology Lab Manual is prepared to provide the students with in depth knowledge about all the living elements in the universe through various experiments This complete lab activity book is written by Dr Priyanka Gupta which strictly follows the latest guidelines of CBSE and it includes the whole NCERT and State Board curriculum All the experiments in this Lab Manual have been given in a simple lucid and interactive manner The theory given with each experiment gives complete knowledge of each term concept and definition in order to provide a compact knowledge to the students at one place Viva voce questions are given with each experiment to test students understanding of related experiments All the lab based experiments have well labeled diagrams which clearly demonstrate the details of the apparatus that are used the correct way of handling laboratory apparatus and perform the experiments methodically The basic purpose of this biology Lab Manual is to provide the students with appropriate guidance so that they can easily understand carry out and document the experiments in the Science Laboratory The Lab Manual comes with practical lessons followed by Lab experiments after each chapter attached notebook available for jotting down all the essential information The aim of this CBSE pattern based biology Lab Manual is to help class 12 students to prepare and understand the complex Science concepts through experimental approach by utilizing pedagogically enhanced content of the Lab Manual and with a compact knowledge base for improving their analytical experimental skills and learning abilities **Lab Manual Science Class 09**
Neena Sinha, R.Rangarajan, Rajesh Kumar, These Lab Manuals provide complete information on all the experiments listed in the latest CBSE syllabus The various objectives materials required procedures inferences etc have been given in a step by step manner Carefully framed MCQs and short answers type questions given at the end of the experiments help the students prepare for viva voce

Eventually, you will extremely discover a new experience and capability by spending more cash. still when? complete you agree to that you require to acquire those all needs bearing in mind having significantly cash? Why dont you try to acquire something basic in the beginning? Thats something that will guide you to understand even more roughly speaking the globe, experience, some places, later history, amusement, and a lot more?

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