**Karnataka Board Syllabus Class 12**

**Maths**

1. Relations and Functions
2. Inverse Trigonometric Functions
3. Matrices
4. Determinants
5. Continuity and Differentiability
6. Applications of Derivatives
7. Integrals
8. Applications of the Integrals
9. Differential Equations
10. Vectors
11. Three-dimensional Geometry
12. Linear Programming
13. Probability

**Accountancy Part 1**

Chapter 1: Accounting for Not-for-Profit Organisation

Chapter 2: Accounting for Partnership: Basic Concepts

Chapter 3: Reconstitution of a Partnership Firm – Admission 112 of a Partner

Chapter 4: Reconstitution of a Partnership Firm – 172 Retirement/Death of a Partner

Chapter 5: Dissolution of Partnership Firm

**Accountancy Part 2**

Chapter 1: Accounting for Share Capital

Chapter 2: Issue and Redemption of Debentures

Chapter 3: Financial Statements of a Company

Chapter 4: Analysis of Financial Statement

Chapter 5: Accounting Ratios

Chapter 6: Cash Flow Statement

**Physics Syllabus**

1. Electric Charges and Fields
2. Electrostatic Potential and Capacitance
3. Current Electricity
4. Moving Charges and Magnetism
5. Magnetism and Matter
6. Electromagnetic Induction
7. Alternating Current
8. Electromagnetic Waves

* Ray Optics and Optical Instruments
* Wave Optics
* Dual Nature of Radiation and Matter
* Atoms
* Nuclei
* Semiconductor Electronics

**Physics Syllabus (Practical)**

1. To determine resistance per unit length of a given wire by plotting a graph of potential

difference versus current.

2. To determine the resistance of a given wire using a metre bridge and hence determine the

resistivity of the material of the wire.

3. To compare the emf of two given primary cells (Daniel and Leclanche cells) using a

potentiometer.

4. To determine the internal resistance of a given primary cell using a potentiometer.

5. To determine the resistance of a galvanometer by half deflection method and to find its figure

of merit.

6. To convert the given galvanometer (of known resistance and figure of merit) into (i) an

ammeter of a desired range (say 0 to 30 mA) and (ii) a voltmeter of desired range (say 0 to 3

V) and verify the same.

7. To find the focal length of a convex lens by plotting graphs between u and v or between 1/u

and 1/v.

8. To find the focal length of a concave lens with the help of a convex lens.

9. To determine the angle of minimum deviation for a given glass prism by plotting a graph

between the angle of incidence and the angle of deviation.

10. To draw the I – V characteristic curves of a p-n Junction in forward bias and reverse bias.

**Chemistry Syllabus**

1. Solid State
2. Solutions
3. Electrochemistry
4. Chemical Kinetics
5. Surface chemistry
6. General Principles and Processes of Isolation of Elements
7. p-Block Elements
8. d and f Block Elements
9. Coordination Chemicals
10. Haloalkalenes and Haloarenes
11. Alcohols, Phenols, and Ethers
12. Aldehydes, Ketones and Carboxylic acids
13. Organic Compounds Containing Nitrogen
14. Biomolecules
15. Polymers
16. Chemistry in Everyday Life

**Chemistry Practical**

1) CHROMATOGRAPHY;

a) Separation of pigments present in the leaves (spinach) and flowers (Rose, marigold)

by paper chromatography and determination of Rf value of components.

b) Separation of the constituents of a mixture of inorganic compounds containing two

cations, Pb2+ and Cd2+ using chromatographic techniques.

2) TITRIMETRIC ANALYSIS ;

a) To determine the concentration / molarity of KMnO4 solution by titrating it against a

0.1 M standard solution of oxalic acid.

b) To determine the concentration / molarity of KMnO4 solution by titrating it against

standard solution of FAS.

3) SYSTEMATIC QUALITATIVE ANALYSIS ;

To detect one cation and one anion in the given salt

TESTS FOR FUNCTIONAL GROUPS IN ORGANIC COMPOUNDS ;

 Test for unsaturation

 Test for alcoholic group

 Test for phenolic group

 Test for aldehydes and ketones

 Test for carboxylic acid

 Test for amino group

5) PREPARATION OF INORGANIC–COMPOUNDS ;

a) To prepare double salts; FAS and potash alum.

b) To prepare potassium trioxalatoferrate (III)

6) TEST FOR CARBOHYDRATES, FATS AND PROTEINS ;

a) Test for carbohydrates

b) Test for oils and fats

c) Test for proteins

7) Reaction between KIO3 and Na2SO3 using starch solution as indicator. (Clock reaction)

8) Enthalpy of neutralization of strong acid (HCl) and strong base (NaOH)

9) Determination of enthalpy change during interaction between acetone and Chloroform.

10) Preparation of Acetanilide.

11) Preparation of Di-benzal acetone.

**Biology Syllabus**

1. Reproduction
2. Genetics and Evolution
3. Biology in Human Welfare
4. Biotechnology
5. Ecology

**Biology Practicals**

Exercise-1 To study the reproductive parts of commonly available flowers

Exercise-2 To calculate percentage of pollen germination

Exercise-3 To study study pollen tube growth on stigma

Exercise-4 To study the discrete stages of gametogenesis in mammalian testis and ovary

Exercise-5 To study and identify various stages of female gametophyte development in the ovary

of a flower

Exercise-6 Preparation and study of mitosis in onion root tips

Exercise-7 Study of stages of meiosis using permanent slides

Exercise-8 To study the blastula stage of embryonic development in mammal, with the help of

permanent slide, chart, model or photographs

Exercise-9 Preparation and analysis of pedigree charts

Exercise-10 Staining of nucleic acid by acetocarmine

Exercise-11 To identify common disease- causing organisms and the symptoms of the diseases

Exercise-12 To study the texture of soil samples

Exercise-13 To determine water holding capacity of soils

Exercise-14 To study the ecological adaptations in plants living in xeric and hydric conditions

Exercise-15 To study the adaptations in animals living in xeric and hydric conditions

Exercise-16 To determine the pH of different water and soil samples

Exercise-17 To study turbidity of water samples

Exercise-18 To analyse living organisms in water samples

Exercise-19 Study of homologous and analogous organs in plants and animals