

Class XII : Biology Practical : Terms I & II : 2021-2022 : Marks 15 (Each Term).

1. Any One major Experiment	5
[Procedure-2, Observation -2, Inference-1]	
Or,	
Any One Minor Experiment	5
[Procedure-2, Observation-1, Correlation -1, Inference-1]	
2. Spot Identification (Any two).....	2.5 x2=5
Correct Identification – 1 -	(For each) -
Characters (3 Nos) – 1.5	(For each) -
3. Practical Note Book	3
4. Viva Voice	2
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Total – 15	

Major Experiments :

- 1. To Study the Pollen Germination on a slide & Draw a labelled diagram of it.**
[Preparation-2 ; Drawing and Labelling – $[1\frac{1}{2} + 1\frac{1}{2} = 3]$]
- 2. To Prepare a temporary mount of onion root tip to study Mitosis & draw any one phase of it.**
[Slide preparation-2 ; Drawing and labelling – $[1\frac{1}{2} + 1\frac{1}{2} = 3]$].
- 3. To Show the effect of two different temperature on the activity of salivary amylase on starch.**
[Procedure -2; Observation-2; Inference-1= 5].

Minor Experiments :

- 1. - To collect & study soil from at least two different sites and study them for pH and water holding capacity. Correlate data so obtained with the kind of plants found in them [2+2+1=5].**
- 2. To collect water from two different bodies and to study them for pH, clarity and presence of any living organism in them [2+2+1=5]..**
- 3. Identification (Any Two) 2.5x2 =5**
Slides – Endamoeba, Plasmodium,
Specimen – Ascaris, Opuntia, Fish (any), waterhyacinth, Any insect pollinated floweres.

NB : Either Major or Minor experiment may be choosen for Term I & Term II, other Questions remains same.

Class XII : Chemistry Practical : Term I (Half Yearly) : 2021-2022 : Marks 15

Sl. No.	Items	Marks
01.	Organic Analysis	5
02.	Salt Analysis (Anion detection)	5
03.	Viva	2
04.	Laboratory note book	3
Total		15

A. Tests for the functional groups present in organic compounds :

Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups.

B. Qualitative analysis

Determination of one anion in a given salt.

Anions: $[\text{CO}_3]^{2-}$, S^{2-} , $[\text{SO}_3]^{2-}$, $[\text{SO}_4]^{2-}$, $[\text{NO}_2]^-$, Cl^- , Br^- , I^- , $[\text{PO}_4]^{3-}$, $[\text{C}_2\text{O}_4]^{2-}$, CH_3COO^- .

(Note : Insoluble salts are excluded)

C. Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given food stuffs.

Class XII : Chemistry Practical : Term II (Board Final) : 2022 : Marks 15

Sl. No.	Items	Marks
01.	Volumetric Analysis	5
02.	Salt Analysis (Cation detection)	5
03.	Viva	2
04.	Laboratory note book	3
Total		15

A. Determination of concentration/ molarity of KMnO_4 solution by titrating it against a standard solution of :

i) Oxalic acid, -

ii) Ferrous Ammonium Sulphate -

(Standard Solution will be Supplied)

B. Salt analysis

Determination of one cation in a given salt.

Cations : Pb^{2+} , Cu^{2+} , Al^{3+} , Fe^{3+} , Mn^{2+} , Ni^{2+} , Zn^{2+} , Co^{2+} , Ca^{2+} , Sr^{2+} , Ba^{2+} , Mg^{2+} , $[\text{NH}_4]^+$

(Note : Insoluble salts are excluded)

Class XII : Geography Practical : Term 1 (Half Yearly) : 2021-2022 : Marks 15

1.Data its Source & Compilation -----7

Graphical construction of frequency distribution, tabulation, histogram & frequency polygon

2.GraphicalConstruction of data : Pie Diagram-----3

3. Practical Note Book-----3

4. Viva-voce-----2

Class XII : Geography Practical : Term I1 (Board Final) : 2021-2022 : Marks 15

1. Measures ofCentral Tendency-----7

Mathematical calculation of mean, Median and Mode

2. Geographical construction of Data-----3

Bar diagram

3.Practical Note Book -----3

4. Viva-----2

Class XII : Physics Practical : Terms I & II : 2021-2022 : Marks 15

1. One Experiment [from given list]10 marks
2. Laboratory Note Book..... 3
3. Viva voce..... 2

Total15 [each Term]

List of Experiments (Physics) : Term I : 2021-22

1. To determine resistance per cm of a given wire by plotting a graph of potential difference vrs. Current. [Principle/ Working formula-2; circuit diagram-1; recording of data-2; graph-2; calculation, result, accuracy-1x3 : Total =10].
2. To find the resistance of a given wire using Metre Bridge. [Principle-2; circuit diagram-1; recording of data-3; calculation-2; results-1; accuracy-1; Total=10]].
3. To find the value of 'v' for different values of 'u' for a Concave mirror and to find its focal length. [Principle/ Working formula-2; recording of data-3; graph-2; calculation, result, accuracy-3x1 : Total =10]
4. To find the focal length of a Convex lens by plotting 'u' vrs. 'v' or '1/u' vrs. '1/v' graph. [Principle/ Working formula-2; recording of data-3; graph-2; calculation, result, accuracy-1x3 : Total =10].

List of Experiments (Physics) : Term II(Board Final) : 2022

1. Verify the laws of combination (Series or, Parallel) of resistance using a Metre Bridge. [Principle/ Working formula-1; circuit diagram 1; recording of data-4; calculation- 2; result-1 ; accuracy-1 : Total =10].
2. To determine the resistance of a galvanometer by Half Deflection method and find its Figure of Merit. [Principle/ Working formula-2; circuit diagram 1; recording of data-3; calculation- 2; result-1 ; accuracy-1 : Total =10].
3. To determine the angle of minimum deviation of a given prism by plotting a graph between Angle of incidence vrs. Angle of deviation. [Principle/ Working formula-1; drawing 3; recording of data-2; graph 2; result-1 ; accuracy-1 : Total =10].
4. To determine refractive index of a glass slab using a Travelling Microscope. [Principle/ Working formula-1; ray diagram 1; determination of V.C.(Vernier constant)-1; recording of data-3; calculation- 2; result-1 ; accuracy-1 : Total =10].

Class XII : Psychology Practical : Term 1 (Half Yearly) : 2021-2022 : Marks 15

Students shall be required to undertake one assignment on Adjustment (including topics like definition,, types, measurement etc. of a OP adjustment along with maladjustment).

within 500 words

Marks Distribution :

I.Details of Adjustment with introduction and Conclusion ---10

1. Definition ----- 2

2. Types ----- -2

3. measurement ----- 2

4. maladjustment ----- 4

II.Records & Viva-----5

5. File-----3

6.Viva-----2

Class XII : Psychology Practical : Term II (Board Final) : 2022 : Marks 15

Students shall be required to conduct a test on – I Measurement of Adjustment pattern using Bell Adjustment inventory : 10 Marks.

1. Problem – 01

2. Basic Concept – 02

3. Preliminaries – Nil

4. Materials Required – 01

5. Procedure – 01

6. Instruction to the subject – 01

7. Precautions – Nil

8. Data and Result – 02

9. Discussion and Conclusion – 02

II Practical File – 03 marks

III Viva – 02 marks

Class XII : Statistics Practical : Term I (Half yearly) Examination: 2021-22

1. Scatter diagram.
2. Correlation coefficient and Linear Regression.
3. Spearman's Rank Correlation coefficient (without tie).

Marks Distribution of Practical Examination

Full Marks: 15, Time: 2 Hours

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|------------------------------|----------|
| 1. Experiments (5 + 5) | 10 Marks |
| 2. Practical Note Book (PNB) | 3 |
| 3. Viva voce | 2 |

Class XII :Statistics Practical : Term II (Board Final) Examination : 2022

1. Applications and Fitting of Binomial Distributions.
2. Applications and Fitting of Poisson Distributions.
3. Large sample tests of a single mean, single proportion and difference of two proportions.
4. Exact tests of hypotheses under normal set-up for a single mean, difference of two means.

Marks Distribution of Board Final Practical Examination

Full Marks: 15 : Time: 2 h

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| 1. Experiments (5 + 5) | 10 Marks |
| 2. Practical Note Book | 3 |
| 3. Viva voce | 2 |