

BOARD OF SCHOOL EDUCATION HARYANA

Syllabus and Chapter wise division of Marks (2024-25)

Class: 9th

Subject: Agriculture

Code: 029

General Instructions:

1. There will be an Annual Examination based on the entire syllabus.
2. The Annual Examination will be of 60 marks, Practical Examination will be of 20 marks and 20 marks weightage shall be for Internal Assessment.
3. For Practical Examination:
 - i) Two experiments of 6 marks each.
 - ii) One activity of 3 marks.
 - iii) Practical record of 2 marks.
 - iv) Viva-voce of 3 marks.

4. For Internal Assessment:

There will be Periodic Assessment that would include:

- i) For 6 marks- Three SAT exams will be conducted and will have a weightage of 06 marks towards the final Internal Assessment.
- ii) For 2 marks- One half yearly exam will be conducted and will have a weightage of 02 marks towards the final Internal Assessment.
- iii) For 2 marks- Subject teacher will assess and give maximum 02 marks for CRP (Classroom participation).
- iv) For 5 marks- A project work to be done by students and will have a weightage of 05 marks towards the final Internal Assessment.
- v) For 5 marks- Attendance of student will be awarded 05 marks as:

75% to 80% - 01 mark

Above 80% to 85% - 02 marks

Above 85% to 90% - 03 marks

Above 90% to 95% - 04 marks

Above 95% to 100% - 05 marks

Course Structure (2024-25)

Class: 9th

Subject: Agriculture

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Sr. no.	Chapter	Marks
1	Introduction to Agriculture	6
2	Climatology	9
3	Soils	12
4	Manure and fertilizers	11
5	Plant life	10
6	Fruit crops	12
Total		60
Practical Examination		20
Internal assessment		20
Grand Total		100

Chapter 1: Introduction to Agriculture

Definition of Agriculture & Scope, Branches of Agriculture, Definition of Agronomy, Types of farming, Various Revolution, Major crop production states in India / State.

Introduction to field preparation – Climate, climacteric elements, tillage, puddling, zero tillage, levelling, ploughing, Sowing methods.

Chapter 2: Climatology

Earth atmosphere- its composition; Atmospheric weather variables; Atmospheric pressure, its variation with height; Wind, types of wind, daily and seasonal variation of wind speed; Atmospheric temperature, temperature inversion, daily and seasonal variations of temperature, Atmospheric humidity, formation of dew, fog, mist, frost, cloud; Precipitation, process of precipitation, types of precipitation such as rain, snow, sleet and hail.

Chapter 3: Soils

Definition of soil and difference between soil and land. Soil formation processes and factors affecting soil formation genesis. Major soils of India. Soil physical properties soil-texture, structure, density and porosity. Soil reaction- pH, soil acidity and alkalinity. Soil organic matter and its influence on soil properties. Definition of soil fertility and productivity, Essential plant nutrient; criteria of essentiality, role and deficiency symptoms of essential plant nutrients. Factors affecting nutrient availability to plants. Soil testing and critical levels of different nutrients in soil. Fertilizer recommendations to different crops.

Chapter 4: Manure and fertilizers

Introduction and importance of organic manures, characteristics of organic manures (Farmyard manure, vermicompost, poultry manure, press mud, biogas slurry and green manure). Chemical fertilizers, properties of major nitrogenous, phosphatic, potassic fertilizers, secondary and micronutrient fertilizers. Methods of fertilizer application under rainfed and irrigated conditions.

Chapter 5: Plant life

Brief description about plant morphology and modifications; functions of different parts of flowering plants: Root, stem, leaf, inflorescence-cymose and racemose, flower, fruit and seed.

Chapter 6: Fruit crops

Fruit tree- importance of fruits and irrigation & fertilization requirements for growing, layout of orchard; cultivation of mango, guava, grapes, citrus, berry and peaches, important pests and diseases of fruit and their control.

Practicals:

1. Visit of Agrometeorological observatory and exposure of instruments and weather data recording.
2. Identification and demonstration of different types of soil.
3. Determination of pH and EC of soil.
4. Demonstration of deficiency symptoms of major plant nutrients.
5. Identification and demonstration of different manures.
6. Identification and demonstration of different fertilizers.
7. Study of structure and form of root, stem, leaf and flower.
8. Identification of different fruit trees and fruits.
9. Demonstration of grafting, budding, layering and cutting.

Month wise Syllabus Teaching Plan (2024-25)

Class: 9th

Subject: Agriculture

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Month	Subject- content	Teaching Periods	Revision Periods	Practical work
April	<p>Chapter 1: Introduction to Agriculture Definition of Agriculture & Scope, Branches of Agriculture, Definition of Agronomy, Types of farming, Various Revolution, Major crop production states in India / State .</p>	10	06	
May	<p>Chapter 1: Introduction to Agriculture Introduction to field preparation – Climate , climacteric elements , tillage , puddling , zero tillage , levelling , ploughing , Sowing methods</p> <p>Practical :- Create a small nursery in our school for do all practice.</p>	15	06	02
June	Summer vacation (Project Work & Assignments)			

<p>July</p>	<p>Chapter 2: Climatology</p> <p>Practical: Visit of Agrometeorological observatory and exposure of instruments and weather data recording.</p>	<p>10</p>	<p>8</p>	<p>2</p>
<p>August</p>	<p>Chapter 3 : Soils</p> <p>Definition of soil and difference between soil and land. Soil formation processes and factors affecting soil formation genesis. Major soils of India. Soil physical properties soil- texture, structure, density and porosity. Soil reaction- pH, soil acidity and alkalinity. Soil organic matter and its influence on soil properties.</p> <p>Practical:</p> <p>Identification and demonstration of different types of soil.</p> <p>Determination of pH and EC of soil.</p>	<p>15</p>	<p>5</p>	<p>1</p> <p>1</p>

<p>September</p>	<p>Chapter 3: Soils</p> <p>Definition of soil fertility and productivity,</p> <p>Essential plant nutrient; criteria of essentiality, Role and deficiency symptoms of essential plant nutrients. Factors affecting nutrient availability to plants.</p> <p>Soil testing and critical levels of different nutrients in soil.</p> <p>Fertilizer recommendations to different crops.</p> <p>Half Yearly Exam</p>	<p>10</p>	<p>5</p>	
<p>October</p>	<p>Chapter 4: Manure and fertilizers</p> <p>Practical:</p> <p>Demonstration of deficiency symptoms of major plant nutrients.</p> <p>Identification and demonstration of different manures.</p> <p>Identification and demonstration of different fertilizers.</p>	<p>18</p>	<p>2</p>	<p>1</p> <p>1</p> <p>1</p>

November	Chapter 5: Plant life Practical: Study of structure and form of root, stem, leaf and flower.	15	5	4
December	Chapter 6: Fruit crops Fruit tree- importance of fruits and irrigation and fertilization requirements for growing, layout of orchard; cultivation of mango Practical: Identification of different fruit trees and fruits.	15	5	3
January	Chapter 6: Fruit crops Cultivation of guava, grapes, citrus, berry and peaches, important pests and diseases of fruit and their control. Practical: Demonstration of grafting, budding, layering and cutting.	15	5	4
February	Revision Annual Practical Exam		10	
March	Annual Examination			

Note: Subject teachers are advised to direct the students to prepare notebook of the Terminology/ Definitional words used in the chapters for enhancement of vocabulary or clarity of the concept.

Question Paper Design (2024-25)

Class: 9th

Subject: Agriculture

Code: 029

Time :- 2:30 hours

Type of Question	Marks	Number	Description	Total Marks
Objective Questions	1	15	6 Multiple Choice Questions, 3 Fill in the Blanks Questions, 3 One Word Answer Type Questions, 3 Assertion-Reason Questions	15
Very Short Answer Type Question	2	6	Internal choice will be given in any 2 questions	12
Short Answer Type Question	3	6	Internal choice will be given in any 2 questions	18
Essay Answer Type Question	5	3	Internal options will be given in all the questions	15
Total		30		60