



BOARD OF SCHOOL EDUCATION HARYANA

Syllabus and Chapter wise division of Marks (2026-27)

Class-12th

Subject: Plumbing (NSQF)

Code: PLM 985

General Instructions:

1. There will be an Annual Examination based on the entire syllabus.
2. The Annual Examination will be of 60/2=30 marks, Practical Examination will be of 50 marks and 20 marks weightage shall be for Internal Assessment.
3. For Practical Examination:
 - i) Two experiments of 10 marks each.
 - ii) One activity of 15 marks.
 - iii) Practical record of 10 marks.
 - iv) Viva-voce of 15 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 (Class room 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 Marks
Above 80% to 85%	- 02 Marks
Above 85% to 90%	- 03 Marks
Above 90% to 95%	- 04 Marks
Above 95% to -	- 05 Marks



Course Structure (2026-27)

Class- 12th

Subject: Plumbing (NSQF)

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Unit. No.	Vocation Skill Unit Name	Unit Marks
	Sensor Based Fixtures	15
	Advance Pipe Fittings	15
	Standard Operating Procedures (SOPs) in Plumbing	12
	Working Effectively with others	08
Unit. No.	Employability Skill Units	Unit Marks
1.	Communication Skills	2
2.	Self-Management Skills	2
3.	Information and Communication Technology Skills	2
4.	Entrepreneurship Skills	2
5.	Green Skills	2
Total		60/2=30
Practical Examination		50
Internal Assessment		20
Grand Total		100



Employability Skill

Unit 1: Communication Skills

Session 1: Active Listening

Session 2: Parts of Speech

Session 3: Writing Sentences

Unit 2: Self-Management Skills

Session 1: Motivation and Positive Attitude

Session 2: Result Orientation

Session 3: Self - Awareness

Unit 3: Information and Communication Technology Skills

Session 1: Getting Started with Spreadsheet

Session 2: Performing Basic Operations in a Spreadsheet

Session 3: Working with data and Formatting text

Session 4: Advanced features in spreadsheet

Session 5: Presentation Software

Session 6: Opening, closing, saving and printing a presentation

Session 7: Working with slides and Text in a Presentation

Session 8: Advanced features in Presentation

Unit 4: Entrepreneurship Skills

Session 1: Entrepreneurship and Entrepreneur

Session 2: Barriers to Entrepreneurship

Session 3: Entrepreneurial attitudes

Session 4: Entrepreneurial competencies

Unit 5: Green Skills

Session 1: Green Jobs

Session 2: Importance of Green jobs



Month wise NSQF Syllabus Teaching Plan (2026-27)

Class- 12th

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Code: PLM985

Month	Subject- Content	Teaching Periods	Revision Periods	Practical Work
April	Vocational Skill: Unit –I (Sensor Based Fixtures)	13	05	05
	Introduction to Sensors and its application	01	-	-
	Basic Components of a Sensor based Plumbing System	02	01	-
	Solenoid valve, battery box, battery, and its application	02	01	01
	Installation and replacement of battery in sensor-based faucet	02	01	02
	Selection of any sensor-based fixtures	02	01	01
	Concept of Sensor based faucet and its types	02	01	01
	Employability Skill: Unit –I (Communication Skills)			
	Active Listening	01	-	-
	Parts of Speech	01	-	-
May	Vocational Skill: Unit –I (Sensor Based Fixtures)	10	05	06
	Sensor based faucet (Installation and repair)	02	01	02
	Installation of Infrared Sensor Faucet	02	01	01
	Installation and Repair of a Sensor-based Urinal	02	01	02
	Repairing process of the sensor-based urinal and its application	02	01	01
	Employability Skill: Unit –I (Communication Skills)			
	Writing Sentences	02	01	-
June	During Summer Vacation Home Work/Project			
	Report Writing on Roles and Responsibilities of a plumbing technician in modern plumbing system which includes qualification, daily tasks, safety responsibilities, equipment used.			
	Draw the line diagram of solenoid valve, battery box, battery and label it.			
	Prepare a worksheet of 20 MCQ on plumbing tools, equipment's, safety procedures of using tools and equipment's.			



	Visit a nearby plumbing site (with supervision) and prepare a brief report on the following points: - Placement of pipes according to the site map observed. Checking of fitting joints Precautionary signs and safety equipment seen. (If physical visit is not possible, watch a virtual field visit video and summarize your observation)			
	Create a chart showing 10 tools used by plumber. Name, image/sketch, use, safety tip (Eg. Combination plier, safety harness, pipe wrench)			
	Draw a safety poster for plumbing titled: "Work Safe, Stay safe- plumber Safety First" Use creative slogans, symbols and at least 5 safety rules.			
July	Vocational Skill: Unit –I (Sensor Based Fixtures)	13	05	07
	Sensor based Cistern (Installation and repair)	02	01	01
	Installation of inbuilt Sensor based cistern	02	01	01
	Troubleshooting of Sensor based cistern	02	01	01
	Sensor based Shower (Installation and repair)	02	01	02
	Installation procedure and repair of the sensor-based shower	02	01	02
	Employability Skill: Unit –II (Self-Management Skills)			
	Motivation and Positive Attitude	01	-	-
	Result Orientation	01	-	-
	Self - Awareness	01	-	-
August	Vocational Skill: Unit-II (Advance Pipe Fittings)	10	03	03
	Advance Pipe Fittings in Residential units	02	01	01
	Service and House Sewer Connections	02	01	01
	Drinking water connection	02	01	01
	Employability Skill: Unit –III (Information and Communication Technology Skills)			
	Getting Started with Spreadsheet	01		
	Performing Basic Operations in a Spreadsheet	01	-	-
	Working with data and Formatting text	01	-	-
	Advanced features in spreadsheet	01		
September	Vocational Skill: Unit-II (Advance Pipe Fittings)	12	06	04
	Rainwater harvesting filter column	02	01	02



	Solar water heater and its installation	02	01	02
	Advantages and Limitations of Solar water heater	01	01	-
	Vocational Skill: Unit-III (Standard Operating Procedures (SOPs) in Plumbing)			
	Key Characteristics of SOP	01	01	-
	Objectives of SOP	01	01	-
	Common SOPs in Plumbing Sector	01	01	-
	Employability Skill: Unit –III (Information and Communication Technology Skills)			
	Presentation Software	01		
	Opening, closing , saving and printing a presentation	01	-	-
	Working with slides and Text in a Presentation	01	-	-
	Advanced features in Presentation	01		
	Half Yearly Exam			
October	Vocational Skill: Unit-III (Standard Operating Procedures (SOPs) in Plumbing)	08	03	04
	SOP to be followed during installation of Pipes and Fittings	02	01	02
	Applications of Occupational Health and Safety (OHS) Practices	02	01	-
	Awareness of Occupational Health and Safety (OHS)	02	01	-
	Activities	-	-	02
	Employability Skill: Unit –IV (Entrepreneurship Skills)			
	Entrepreneurship and Entrepreneur	01		
	Barriers to Entrepreneurship	01		
November	Vocational Skill: Unit-III (Standard Operating Procedures (SOPs) in Plumbing)	09	05	08
	General introduction of Tools & Equipment	02	01	02
	Fire Sprinklers in Workplace & Installation	02	02	02
	SOP to be followed during installation of Pipes and Fittings	02	02	02
	Activities	01	-	-
	Employability Skill: Unit –IV (Entrepreneurship Skills)			
	Entrepreneurial attitudes	01	-	-
	Entrepreneurial competencies	01	-	-
December	Vocational Skill: Unit-IV (Working Effectively with others)	07	04	-



	Team Management	01	01	-
	Team Work	01	01	-
	Resolving Disputes	01	01	-
	Conflict	01	01	-
	Activities	01	-	
	Employability Skill: Unit –V (Green Skills)			
	Green Jobs	01	-	-
	Importance of Green jobs	01	-	-
January	Vocational Skill: Unit-IV (Working Effectively with others)	08	06	-
	Team Working Skills	01	01	-
	Maintaining Good Relationship with Colleagues	01	01	-
	Daily Log Reports	01	01	-
	Activities	01	01	-
	Revision and doubt session	04	-	-
February	Vocational Skill: Unit-IV (Working Effectively with others)	07	-	-
	Incident Reports	01	-	-
	Activities	02	-	-
	Revision and doubt session	04	-	-
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.
- The NCERT textbook present information in boxes the book. These help students to get conceptual clarity. However, the information in these boxes would not be assessed in the year-end examination.



Class- 12th

Subject: Plumbing (NSQF)
Time 2 Hours 30 Minutes

Code: PLM 985

Competencies	Total
Knowledge	40%
Understanding	30%
Application	20%
Skill	10%
Total	100%

Type of Question	Marks	Number	Description	Total Marks
Objective Type Question	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 Type Question	5	3	Internal option will be given in Essay Type question.	15
Total		30		60