DIPLOMA PROGRAMME IN AGRICULTURE TECHNOLOGY
(For the State of Haryana)

1. SALIENT FEATURES

1.	Name of the Programme	:	Diploma Programme in Agriculture Technology
2)	Duration of the Programme	:	Three years (Six Semesters)
3)	Entry Qualification	:	Matriculation or equivalent as prescribed by State Board of Technical Education, Haryana
4)	Intake	:	40/60 (or as prescribed by the Board)
5)	Pattern of the Programme	:	Semester Pattern
6)	Ratio between theory and Practice	:	38 : 62 (Approx.)

7) Industrial Training:

Six weeks of industrial training is included after IV semester during summer vacation. Internal assessment out of 50 marks and external assessment out of another 50 marks will be added in 5th semester. Total marks allotted to industrial training will be 100.

Distribution of Marks:

- Daily diary and reports of training - 50 Marks
- Viva Voce (External) - 50 Marks

8) Ecology and Environment:

As per Govt. of India directives, a subject on Environmental Education has been incorporated in the scheme.

9) Entrepreneurship Development:

A subject on Entrepreneurship Development and Management has been incorporated in the scheme.

10) Student Centred Activities:

A provision of 5-6 hrs per week has been made for organizing Student Centred Activities for overall personality development of students. Such activities will comprise of co–curricular activities like extension lectures, library studies, games, hobby clubs e.g. photography, painting, singing, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, Civil Defence/ Disaster Management activities etc**.**

2. EMPLOYMENT OPPORTUNITIES FOR A DIPLOMA HOLDER IN AGRICULTURE TECHNOLOGY

The following are the employment opportunities for diploma holders in Agricultural Technology :

Wage Employment Opportunities

- Department of Agriculture.
- Minor Irrigation and Tubewell Organization.
- Supervisor in command area Development.
- Soil and Conservation Department.
- Organization dealing with Renewable Sources of Energy Agro-Industries Corporation.
- Land Development Corporation.
- Seed Corporation and State Farms.
- Animal Feed Plant and Fertiliser Plant of Fertiliser Corporation of State.
- Junior Engineer in Ware Housing Corporations, Rice Mill, Seed Procession Plants, Flour Mills, Pulse Mill (Dal) etc.
- Research and Extension Department of Agriculture
- Organizations Manufacturing Agro Implements and Tractors.
- Instructor in teaching institutes.
- Sales and service representatives of irrigation equipment Agro implements and Tractors.
- Environmental conservation department.

Self Employment Opportunities

- Set up his small - scale industry for manufacturing and marketing of agriculture machinery/own farming enterprise.
- Tractor and farm machinery custom hiring centers (Agriculture service centre).
- Establishment of repair and maintenance centre, agro processing units.

3. COMPETENCY PROFILE OF A DIPLOMA HOLDER IN AGRICULTURAL TECHNOLOGY

A diploma holder in agricultural technology should have following competencies:

i) Familiarity with various operations carried out on the farms/in the field for raising the crops.

ii) Familiarity with various inputs of agriculture, their selection and procurement.

iii) Skill to perform various operations and learn packages of practices for different crops being grown in the season and area.

iv) Ability to prepare cost estimates for the production of crops.

v) Ability to install, maintain and carry out repair of farm equipment like tractors, combine harvester, electric motor, pumps, planter and digger, sprayer, sprinkler and underground pipeline, thresher, plant protection equipments and agro processing unit etc.

vi) Ability to select handle and operate post harvesting equipment.

vii) Development of entrepreneurship traits i.e. decision making, innovation, calculated risk taking ability management etc.

viii) Understanding of engineering principles and techniques required for solving problems of irrigation and drainage, land preparation and conservation.

ix) Knowledge of Renewable sources of energy.

x) Knowledge and skills regarding optimum use of water for maximum agricultural yield.

xi) Knowledge regarding soil erosion, factors effecting soil erosion and use of various erosion control practices for soil conservation.

xii) Demonstrate the use of Agro Implements/Agro processing Machinery to rural people

xiii) Ability to prepare, read and interpret Drawing

xiv) Knowledge regarding various pollutants, their impact and methods to control pollution

xv) Knowledge of basic science subjects which will serve as foundation for engineering and technology subjects.

xvi) Ability to demonstrate proper usage, care and handling of agricultural implements/ agro processing machinery.

xvii) Knowledge of different storage structures, farm structures and their environment control

xviii) Establishing his own unit industry/ manufacturing and marketing of products.

xix) Computer application in agricultural engineering and technology.

4. DERIVING CURRICULUM AREA FROM COMPETENCY PROFILE

Sr. No.	Competency	Curriculum Area
i)	Familiarity with various operations carried out on the farms/in the field for raising the crops	▪ Crop production
ii)	Familiarity with various inputs of agriculture, their selection and procurement.	▪ Crop production
iii)	Skill to perform various operations and learn packages of practices for different crops being grown in the season and area.	▪ Project Oriented Professional Training
iv)	Ability to prepare cost estimates for the production of crops.	▪ Crop production ▪ Farm machinery and implements
v)	Ability to install, maintain and carry out repair of farm equipment like tractors, combine harvester, electric motor, pumps, thresher, planter and digger, sprayer, sprinkler and underground pipeline, thresher, plant protection equipments and agro Processing units etc.	▪ Project Oriented Professional Training ▪ General Workshop Practice ▪ Farm Tractors ▪ Farm Machinery and Implements ▪ I.C. Engine ▪ Farm Irrigation Engineering ▪ Basic electrical and Electronics Engineering ▪ Manufacturing Technology
vi)	Ability to select handle and operate post harvesting equipment	▪ Post Harvest Technology ▪ Agro process Engineering
vii)	Development of entrepreneurship traits i.e. decision making, innovation, calculated risk taking ability, management etc.	▪ Entrepreneurship Development and Management
viii)	Understanding of engineering principles and techniques required for solving problems of irrigation and drainage, land preparation and conservation.	▪ Farm Irrigation Engineering ▪ Soil and water conservation
ix)	Knowledge of Renewable sources of energy	▪ Renewable Sources Energy

x)	Knowledge and skills regarding optimum use of water for maximum agricultural yield.	▪ Farm Irrigation Engineering ▪ Soil and water Conservation
xi)	Knowledge regarding soil erosion, factors affecting soil erosion and use of various erosion control practices for soil conservation	▪ Soil and water Conservation
xii)	Demonstrate the use of agricultural Implements/Agro processing Machinery to rural people	▪ Communication Skill
xiii)	Ability to prepare, read and interpret Drawing.	▪ Engineering Drawing ▪ CAD
xiv)	Knowledge regarding various pollutants, their impact and methods to control pollution	▪ Environmental Education
xv)	Knowledge of basic science subjects which will serve as foundation for Engineering Technology subjects.	▪ Applied Physics ▪ Applied Chemistry ▪ Applied Math ▪ Applied Mechanics ▪ Basics of I.T.
xvi)	Ability to demonstrate proper usage, care and handling of agricultural implements/ agro processing machinery.	▪ Farm Tractor ▪ Farm Machinery and Implement ▪ Farm Irrigation Engineering ▪ Agro Process Engineering
xvii)	Knowledge of different storage structures, farm structures and their environment control green houses.	▪ Post Harvest Technology
xviii)	Establishing his own unit industry/ manufacturing and marketing of products practical use of knowledge gained during the course.	▪ Project Oriented Professional Training
xix)	Computer application in Agriculture Engineering	▪ Basics of IT ▪ CAD ▪ Computer Applications in Agriculture Engineering

5. ABSTRACT OF CURRICULUM AREAS

a) General Subjects

1. English and Communication Skills
2. Employability Skills
3. Environmental Education
4. Entrepreneurship Development and Management
5. Basics of Information Technology

b) Applied Subjects

6. Applied Mechanics
7. Crop Production
8. Farm Irrigation Engineering
9. Soil and Water Conservation
10. Manufacturing Technology-I
11. Basics of Electrical and Electronics Engineering
12. Computer Applications in Agriculture Engineering
13. Farm Machinery and Implements - I
14. Renewable Sources of Energy
15. Post Harvest Technology
16. I.C. Engines
17. Employability Skills - I
18. Environmental Education
19. Farm Machinery and Implements
20. Farm Tractor
21. CAD
22. Agro Process Engineering
23. Project Oriented Professional Training

6. HORIZONTAL AND VERTICAL ORGANISATION OF THE SUBJECTS

Sr. No.	Subject	Distribution of time in various semesters					
		I	II	III	IV	V	VI
1.	Communication Skills	5	5	-	-	-	-
2.	Applied Mathematics	5	5	-	-	-	-
3.	Applied Physics	6	6	-	-	-	-
4.	Applied Chemistry	5	5	-	-	-	-
5.	Engineering Drawing	6	6	-	-	-	-
6.	General Workshop Practice	6	6	-	-	-	-
7.	Basics of Information Technology	4	-	-	-	-	-
8.	Applied Mechanics	-	5	-	-	-	-
9.	Crop Production	-	-	7	-	-	-
10.	Farm Irrigation Engineering	-	-	7	-	-	-
11.	Soil and Water Conservation	-	-	4	-	-	-
12.	Manufacturing Technology-I	-	-	8	8	-	-
13.	Basics of Electrical and Electronics Engineering	-	-	5	-	-	-
14.	Computer Applications in Agriculture Engineering	-	-	4	-	-	-
15.	Farm Machinery and Implements - I	-	-	-	8	-	-
16.	Renewable Sources of Energy	-	-	-	4	-	-
17.	Post Harvest Technology	-	-	-	8	-	-
18.	I.C. Engines	-	-	-	7	-	-
19.	Employability Skills - I	-	-	-	-	2	-
20.	Environmental Education	-	-	-	-	3	-
21.	Farm Machinery and Implements	-	-	-	-	9	-
22.	Farm Tractor	-	-	-	-	10	-
23.	CAD	-	-	-	-	3	-
24.	Agro Process Engineering	-	-	-	-	8	-
25.	Project Oriented Professional Training	-	-	-	-	-	-
26.	Student Centered Activities	3	2	5	5	5	40
	Total	**40**	**40**	**40**	**40**	**40**	**40**