

CBSE | DEPARTMENT OF SKILL EDUCATION CURRICULUM FOR SESSION 2020-2021

MULTI SKILL FOUNDATION COURSE (CODE NO- 416)

JOB ROLE: MULTI SKILL ASSISTANT TECHNICIAN

RATIONALIZED CURRICULUM FOR CLASS-X FOR SESSION 2020-21

Total Marks: 100 (Theory-50 + Practical-50)

	UNITS	NO. OF HOURS for Theory and Practical 200		MAX. MARKS for Theory and Practical 100
Part A	Employability Skills			
	Unit 1 : Communication Skills-II	10		10
	Unit 2 : Self-Management Skills-II	10		
	Unit 3 : ICT Skills-II	10		
	Unit 4 : Entrepreneurial Skills-II	15		
	Unit 5 : Green Skills-II	05		
	Total	50		
Part B	Subject Specific Skills	Theory	Practical	Marks
	Unit 1: Workshop and Engineering Techniques	35	15	40
	Unit 2: Energy and Environment	30	15	
	Unit 3: Gardening, Nursery & Agriculture Techniques	15	10	
	Unit 4: Personal Health and Hygiene	15	10	
	Total	95	55	
Part C	Practical Work			
	Practical Examination			15
	Project			15
	Viva Voce			10
	Total			40
Part D	Student Portfolio			
	Practical File/ Student Portfolio			10
	Total			10
	GRAND TOTAL	200		100

DETAILED CURRICULUM/ TOPICS:

Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-II	10
2.	Unit 2: Self-management Skills-II	10
3.	Unit 3: Information and Communication Technology Skills-II	10
4.	Unit 4: Entrepreneurial Skills-II	15
5.	Unit 5: Green Skills-II	05
TOTAL DURATION		50

NOTE: For Detailed Curriculum/ Topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

Part-B – SUBJECT SPECIFIC SKILLS

S. No.	Units	Theory (In Hours)	Practical (In Hours)
1.	Unit 1: Workshop and Engineering Techniques	35	15
2.	Unit 2: Energy and Environment	30	15
3.	Unit 3: Gardening, Nursery & Agriculture Techniques	15	10
4.	Unit 4: Personal Health and Hygiene	15	10
TOTAL DURATION		95	55

UNIT	SESSION	PRACTICAL
1. Workshop & Engineering Techniques	<ul style="list-style-type: none">• Introduction of Engineering Drawing Instruments	<ul style="list-style-type: none">• Identification and use of Engineering Drawing instruments
	<ul style="list-style-type: none">• Engineering Drawing (Orthographic & Isometric Projection)	<ul style="list-style-type: none">• Draw plan, elevation of simple objects (Cone, Cylinder, Cube)
	<ul style="list-style-type: none">• Safety Precautions In Engineering Workshop	<ul style="list-style-type: none">• Demonstrate the use of necessary safety measures inside engineering workshop.
	<ul style="list-style-type: none">• Introduction To Engineering Measurement Instruments*	<ul style="list-style-type: none">• Demonstrate the use of Engineering measurement Instrument (Venire Caliper, Outside micrometer, Venire height gauge)
	<ul style="list-style-type: none">• Types Of GI Pipe Fittings	<ul style="list-style-type: none">• Carry out GI piping using threading, coupling two or more pipes using different fittings
	<ul style="list-style-type: none">• Welding Technique & Welding Joint Tes(Simulation or observation only)*	<ul style="list-style-type: none">• Teacher to provide demonstration of preparing welding joints (T- fillet joint, Open corner joint, Single V butt joint) and students are only expected to observe (Simulation or observation only)
	<ul style="list-style-type: none">• Basic Techniques In Building Construction -Ferro Cement Sheet	<ul style="list-style-type: none">• Prepare Ferro cement items like sheet, tank, wall etc.
	<ul style="list-style-type: none">• Making Of RCC Column*• Costing Of Construction• Plastering And Painting	<ul style="list-style-type: none">• Prepare RCC column• Calculate costing of construction• Plaster an area of 1 sq. meter

*** Note: To be assessed in Practical only. No question shall be asked from this portion in Theory Exams**

UNIT	SESSION	PRACTICAL
2. Energy And Environment	<ul style="list-style-type: none"> Introduction To Electrical Techniques And Practices 	<ul style="list-style-type: none"> Prepare series & parallel electrical circuit
	<ul style="list-style-type: none"> Introduction Of Electric Pump, DOL Starter, And Inverter* 	<ul style="list-style-type: none"> Identify different parts & working principle of inverter Identify different parts & working principle of motor/pump Demonstrate installation of DOL/Starter to motor
	<ul style="list-style-type: none"> Solar Energy 	<ul style="list-style-type: none"> Identify the various components & working principle of solar devices
	<ul style="list-style-type: none"> Demonstrate The Functioning And Operation Of A Petrol Or Diesel Engine 	<ul style="list-style-type: none"> Identify the various components & working principle of Petrol & Diesel Engine
	<ul style="list-style-type: none"> Bio Gas Concept And Use 	<ul style="list-style-type: none"> Identify the various components of biogas plant and prepare biogas from biomass Making of charcoal using biomass
	<ul style="list-style-type: none"> Water Conservation Concept 	<ul style="list-style-type: none"> Identify & study the different components of rain water harvesting system
	<ul style="list-style-type: none"> Rainfall Measurement Method 	<ul style="list-style-type: none"> Make a rain gauge using plastic bottle & funnel
	<ul style="list-style-type: none"> Land Survey Method* 	<ul style="list-style-type: none"> Use plain table /dumpy level to mark contours
3. Gardening, Nursery And Agricultural Techniques	1. Nursery Technique	<ul style="list-style-type: none"> Prepare seed bed Demonstrate different grafting methods
	2. Irrigation & Water Conservation Methods	<ul style="list-style-type: none"> Demonstrate the knowledge and application of different irrigation & water conservation methods (surface irrigation, Furrow , basin, sprinkler & drip irrigation) Demonstrate installation & maintenance of drip/sprinkler irrigation system
	3. Interpreting Result Of Soil Testing	<ul style="list-style-type: none"> Demonstrate the procedure for collecting soil sample & interpret the results of soil test
	4. Artificial Insemination	<ul style="list-style-type: none"> Identify breeds used for artificial insemination
	5. Prepare Fodder For Animals	<ul style="list-style-type: none"> Prepare fodder for animals

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UNIT	SESSION	PRACTICAL
4. PERSONAL HEALTH AND HYGIENE	<ul style="list-style-type: none"> Balanced Diet 	<ul style="list-style-type: none"> Identify different nutrition deficiency diseases
	<ul style="list-style-type: none"> Personal Health & Hygiene And Community Health & Mental Health 	<ul style="list-style-type: none"> NA
	<ul style="list-style-type: none"> Communicable & Non-Communicable Diseases, Vaccination, Dehydration And Emergency First Aid 	<ul style="list-style-type: none"> Prepare O.R.S solution Prepare Emergency FIRST AID kit & learn to use FIRST AID kit
	<ul style="list-style-type: none"> Blood & Blood Group-Basic Information And Blood Pressure And Measuring Hemoglobin (Simulation or observation only) 	<ul style="list-style-type: none"> Teacher to provide demonstration of blood group testing and students are expected to only observe (Simulation or observation only) Teacher to provide demonstration of Blood Hemoglobin testing and students are expected to only observe (Simulation or observation only) Determine blood pressure using blood pressure machine
	<ul style="list-style-type: none"> Community Health & Environment Care (Awareness Programs For People With Special Needs And Family Health And Health Planning) 	<ul style="list-style-type: none"> Calculate medical health expenses of a family
	<ul style="list-style-type: none"> Pollution-Sources, Effects And Solutions And Water Quality Testing* 	<ul style="list-style-type: none"> Perform water quality test using H₂O strip testing kit
	<ul style="list-style-type: none"> Food Products (Handling Of Food Products, Perishable & Non-Perishable Food, Packed & Loose Food And Fresh & Stale Food Product 	<ul style="list-style-type: none"> Identify Perishable & Non Perishable food Identify the hygienic practices adopted for handling of food. Develop & administer a questionnaire on food habits & hygienic practices

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