



## **BASIC TECHNOLOGY SCHEME**

### **J.S.2**

SN	TOPICS	CONTENT
1	Technical drawing	Lines
(a)	Lines/ angles	Explanation and construction.
(b)	Triangles, quadrilaterals and polygons.	Explanation and construction.
(c)	Geometrical shapes and plane figures	Construction
2	Friction	Definition, types of friction, laws, advantages and disadvantages and control measures.
3	Drive mechanism	Gears and gearing, gear speed, belt drives, chain drives, calculation based on gears, belt and chain drives.
4	Basic idea of electricity.(2)	Alternating current(definition, advantages, disadvantages, sources) and direct current(definition, advantages, disadvantages and sources)
5	Basic ideas of electricity (3)	Interrelation and interaction of electricity and magnetic field.
6	Basic ideas of	
	Electricity. (4)	Measurement(current, resistance, voltage and power)
7	Basic idea of electricity. (5)	Transmission and utilization(household wiring and generation of electrical powers), as well as electronic devices.
8	Fluid flow	Definition, types, water flow and air flow.
9	Wood work joints	Explanation and workshop practice, adhesive and abrasive.
10	Metal work	Sheet metal work, two shape development, metal joining( soldering, brazing, welding, etc.), forging (tools and processing)
11	Building technology. (1)	Site preparation, types of site, setting out, foundation, reasons for foundation, types of foundation, types of soil, excavation, concrete processes, walls and wall finish.
		YEAR 3 (BASIC 9)

1	Introduction to isometric drawing(projection)	Construction of plane shapes and blocks( mechanical structures)
2	Oblique drawing	Construction of objects (machines)
3	Orthographic projections(drawing)	1 <sup>st</sup> angle projection and 3rd angle projection(side view, front view and plane)
4	Perspective drawing	Construction of blocks.
5	Simple mechanism	Motion in mechanism (linear motion and rotary motion), clutches, brakes and ratchets.
6	Building technology (2)	Floors, doors, windows, roofs and other components of the building.
7	Building maintenance	Internal and external.
8	Mechanical fittings	Explanations, nails, screws, hinges and locks.
9	Domestic sources of water supply.	The plumbing of domestic pipe system, the sewage disposal, soak away pit, periodic maintenance records and fault dictation.