

As Per DGET Revised Syllabus -Annexure-B

Craftsman Training Scheme

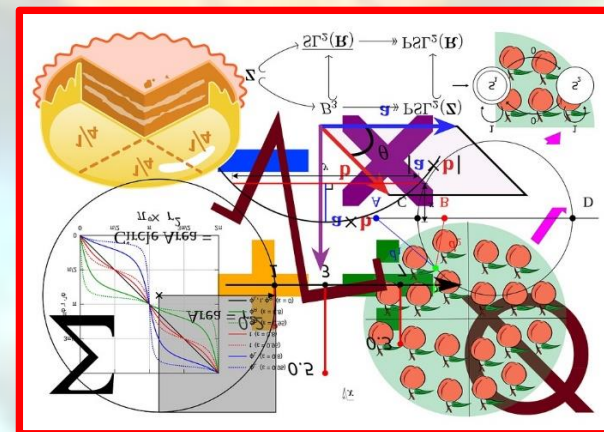
Industrial Training Institute,

Workshop Calculation and Science

Splitup Syllabus

For First Year

All Engineering Trade



Name of the ITI :-Industrial Training Institute,

Name of the Instructor :-

Splitup Syllabus For Workshop Calculation and Science From 2021 Onwards For 1st Year
(Marks Indiactes ✓Topic Retained and ✕ Indicates Topic Deleted)

Sr. No.	Title of the Exercise	Fitter (NSQF Level - 5)		Turner (NSQF Level - 5)		Machinist (NSQF Level - 5)		Machinist Grinder (NSQF Level - 5)		Mechanic Motor Vehicle (NSQF Level - 5)		Operator Advanced Machine Tool (NSQF Level - 5)	
		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
1	Unit, Fractions -Classification of unit system	✓		✓		✓		✓		✓		✓	
2	Fundamental and Derived units F.P.S, C.G.S, M.K.S and SI units	✓		✓		✓		✓		✓		✓	
3	Measurement units and conversion	✓		✓		✓		✓		✓		✓	
4	Factors, HCF, LCM and problems	✓		✓		✓		✓		✓		✓	
5	Fractions - Addition, subtraction, multiplication & division	✓		✓		✓		✓		✓		✓	
6	Decimal fractions - Addition, subtraction, multiplication & division	✓		✓		✓		✓		✓		✓	
7	Solving problems by using calculator	✓		✓		✓		✓		✓		✓	
II	Square root, Ratio and Proportions, Percentage	✓		✓		✓		✓		✓		✓	
1	Square and square root	✓		✓		✓		✓		✓		✓	
2	Simple problems using calculator	✓		✓		✓		✓		✓		✓	
3	Applications of Pythagoras theorem and related problems	✓		✓		✓		✓		✓		✓	
4	Ratio and proportion	✓		✓		✓		✓		✓		✓	
5	Ratio and proportion - Direct and indirect proportions	✓		✓		✕		✓		✓		✓	

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Sr. No.	Title of the Exercise	Fitter (NSQF Level - 5)		Turner (NSQF Level - 5)		Machinist (NSQF Level - 5)		Machinist Grinder (NSQF Level - 5)		Mechanic Motor Vehicle (NSQF Level - 5)		Operator Advanced Machine Tool (NSQF Level - 5)	
		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
6	Percentage	✓		✓		✓		✓		✓		✓	
7	Percentage - Changing percentage to decimal and fraction	✓		✓		✓		✓		✓		✓	
III	Material Science												
1	Types metals, types of ferrous and non ferrous metals	✕		✓		✓		✓		✓		✓	
2	Physical and mechanical properties of metals	✕		✓		✓		✓		✓		✓	
3	Introduction of iron and cast iron	✕		✓		✓		✓		✓		✓	
4	Difference between iron & steel, alloy steel and carbon steel	✕		✓		✓		✓		✓		✓	
5	Properties and uses of rubber, timber and insulating materials	✕		✕		✓		✓		✓		✓	
IV	Mass, Weight, Volume and Density												
1	Mass, volume, density, weight and specific gravity.	✓		✓		✓		✓		✓		✓	
2	Related problems for mass, volume, density, weight and specific gravity	✓		✓		✕		✕		✓		✕	
V	Speed and Velocity, Work, Power and Energy												
1	Speed and velocity - Rest, motion, speed, velocity, difference between speed and velocity, acceleration and retardation	✕		✕		✕		✕		✓		✕	

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		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
2	Speed and velocity - Related problems on speed & velocity	✕		✕		✕		✕		✓		✕	
3	Work, power, energy, HP, IHP, BHP and efficiency	✓		✓		✓		✓		✓		✓	
4	Potential energy, kinetic energy and related problems with assignment	✕		✕		✓		✓		✓		✓	

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Sr. No.	Title of the Exercise	Fitter (NSQF Level - 5)		Turner (NSQF Level - 5)		Machinist (NSQF Level - 5)		Machinist Grinder (NSQF Level - 5)		Mechanic Motor Vehicle (NSQF Level - 5)		Operator Advanced Machine Tool (NSQF Level - 5)	
		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
VI	Heat & Temperature and Pressure												
1	Concept of heat and temperature, effects of heat, difference between heat and temperature, boiling point & melting point of different metals and non-metals	✓		✕		✓		✓		✓		✓	
2	Scales of temperature, Celsius, Fahrenheit, kelvin and conversion between scales of temperature	✕		✕		✕		✕		✕		✕	
3	Heat & Temperature - Temperature measuring instruments, types of thermometer, pyrometer and transmission of heat - Conduction, convection and radiation	✕		✕		✕		✕		✕		✕	
4	coefficient of linear expansion and related problems with assignments	✕		✕		✕		✕		✕		✕	
5	Problem of heat loss and heat gain with assignments	✕		✕		✕		✕		✕		✕	
6	Thermal conductivity and insulators	✕		✕		✕		✕		✕		✕	
7	Concept of pressure - Units of pressure, atmospheric pressure, absolute pressure, gauge pressure and gauges used for measuring pressure	✓		✓		✓		✓		✓		✓	
VII	Basic Electricity												
1	Introduction and uses of electricity, molecule, atom, how electricity is produced, electric current AC, DC their comparison, voltage, resistance and their units	✓		✓		✓		✓		✓		✓	
2	Conductor, insulator, types of connections - series and parallel	✕		✕		✕		✕		✓		✕	
3	Ohm's law, relation between V.I.R & related problems	✕		✕		✕		✕		✓		✕	

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Sr. No.	Title of the Exercise	Fitter (NSQF Level - 5)		Turner (NSQF Level - 5)		Machinist (NSQF Level - 5)		Machinist Grinder (NSQF Level - 5)		Mechanic Motor Vehicle (NSQF Level - 5)		Operator Advanced Machine Tool (NSQF Level - 5)	
		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
4	Electrical power, energy and their units, calculation with assignments	✕		✕		✕		✕		✕		✕	
5	Magnetic induction, self and mutual inductance and EMF generation	✕		✕		✕		✕		✓		✕	
6	Electrical power, HP, energy and units of electrical energy	✕		✕		✕		✕		✕		✕	
VIII	Mensuration												
1	Area and perimeter of square, rectangle and parallelogram	✓		✓		✓		✓		✓		✓	
2	Area and perimeter of Triangles	✓		✓		✓		✓		✓		✓	
3	Area and perimeter of circle, semi-circle, circular ring, sector of circle, hexagon and ellipse	✓		✓		✓		✓		✓		✓	
4	Surface area and volume of solids - cube, cuboid, cylinder, sphere and hollow cylinder	✓		✓		✓		✓		✓		✓	
5	Finding the lateral surface area, total surface area and capacity in litres of hexagonal, conical and cylindrical shaped vessels	✓		✕		✕		✕		✕		✓	

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Sr. No.	Title of the Exercise	Mechanic Machine Tool Maintenance (NSQF Level - 5)		Tool & Die Maker (Press Tools, Jigs & Fixtures) (NSQF Level - 5)		Refrigeration and Air Conditioning Technician (NSQF Level - 5)		Draughtsman (Civil) (NSQF Level - 5)		Draughtsman Mechanical (NSQF Level - 5)		Electrician (NSQF Level - 5)		Electronics Mechanic (NSQF Level - 5)		Information and Communication Technology System Maintenance (NSQF Level - 5)		
		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	
VI	Heat & Temperature and Pressure																	
1	Concept of heat and temperature, effects of heat, difference between heat and temperature, boiling point & melting point of different metals and non-metals	✓		✓		✓		✓		✓		✓		✓				✗
2	Scales of temperature, Celsius, Fahrenheit, kelvin and conversion between scales of temperature	✗		✗		✓		✗		✓		✓		✓				✗
3	Heat & Temperature - Temperature measuring instruments, types of thermometer, pyrometer and transmission of heat - Conduction, convection and radiation	✗		✗		✓		✓		✓		✓		✓		✗		✗
4	coefficient of linear expansion and related problems with assignments	✗		✗		✓		✓		✗		✗		✗		✗		✗
5	Problem of heat loss and heat gain with assignments	✗		✗		✓		✗		✗		✗		✗		✗		✗
6	Thermal conductivity and insulators	✗		✗		✓		✗		✗		✗		✗		✗		✗
7	Concept of pressure - Units of pressure, atmospheric pressure, absolute pressure, gauge pressure and gauges used for measuring pressure	✓		✗		✓		✗		✗		✗		✗		✗		✗
VII	Basic Electricity																	
1	Introduction and uses of electricity, molecule, atom, how electricity is produced, electric current AC,DC their comparison, voltage, resistance and their units	✓		✓		✓		✗		✗		✓		✓		✓		✓
2	Conductor, insulator, types of connections - series and parallel	✗		✗		✗		✗		✗		✓		✓		✓		✓
3	Ohm's law, relation between V.I.R & related problems	✗		✗		✗		✗		✗		✓		✓		✓		✓
4	Electrical power, energy and their units, calculation with assignments	✓		✗		✗		✗		✗		✓		✓		✓		✓
5	Magnetic induction, self and mutual inductance and EMF generation	✗		✗		✗		✗		✗		✓		✓		✓		✓
6	Electrical power, HP, energy and units of electrical energy	✓		✗		✗		✗		✗		✓		✓		✓		✓
VIII	Mensuration																	
1	Area and perimeter of square, rectangle and parallelogram	✓		✓		✓		✓		✓		✓		✗		✗		✗

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(Marks Indiactes ✓Topic Retained and ✕ Indicates Topic Deleted)**

Sr. No.	Title of the Exercise	Mechanic Machine Tool Maintenance (NSQF Level - 5)		Tool & Die Maker (Press Tools, Jigs & Fixtures) (NSQF Level - 5)		Refrigeration and Air Conditioning Technician (NSQF Level - 5)		Draughtsman (Civil) (NSQF Level - 5)		Draughtsman Mechanical (NSQF Level - 5)		Electrician (NSQF Level - 5)		Electronics Mechanic (NSQF Level - 5)		Information and Communication Technology System Maintenance (NSQF Level - 5)		
		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	
2	Area and perimeter of Triangles	✓		✓		✓		✓		✓		✓		✕		✕		
3	Area and perimeter of circle, semi-circle, circular ring, sector of circle, hexagon and ellipse	✓		✓		✕		✓		✓		✓		✕		✕		
4	Surface area and volume of solids - cube, cuboid, cylinder, sphere and hollow cylinder	✓		✓		✕		✓		✓		✓		✕		✕		
5	Finding the lateral surface area, total surface area and capacity in litres of hexagonal, conical and cylindrical shaped vessels	✓		✓		✕		✓		✓		✕		✕		✕		

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Sr. No.	Title of the Exercise	Mechanic Machine Tool Maintenance (NSQF Level - 5)		Tool & Die Maker (Press Tools, Jigs & Fixtures) (NSQF Level - 5)		Refrigeration and Air Conditioning Technician (NSQF Level - 5)		Draughtsman (Civil) (NSQF Level - 5)		Draughtsman Mechanical (NSQF Level - 5)		Electrician (NSQF Level - 5)		Electronics Mechanic (NSQF Level - 5)		Information and Communication Technology System Maintenance (NSQF Level - 5)		
		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	
IX	Levers and Simple machines																	
1	Simple machines - Effort and load, mechanical advantage, velocity ratio, efficiency of machine, relationship between efficiency, velocity ratio and mechanical advantage	✕		✕		✕		✕		✕		✕		✕		✕		✕
2	Lever & Simple machines - Lever and its types	✓		✓		✕		✕		✕		✓		✕		✕		✕
X	Trigonometry																	
1	Measurement of angles	✓		✓		✕		✓		✓		✓		✓		✓		✓
2	Trigonometrical ratios	✓		✓		✕		✓		✓		✓		✓		✓		✓
3	Trigonometrical tables	✓		✓		✕		✓		✓		✓		✓		✓		✓
4	Application in calculating height and distance (Simple applications)	✕		✕		✕		✕		✕		✓		✕		✕		✕

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Sr. No.	Title of the Exercise	Instrument Mechanic (NSQF Level - 5)		Wireman (NSQF Level - 4)		Painter (General) (NSQF Level - 5)		Carpenter (NSQF Level - 4)		Foundryman (NSQF Level - 4)		Mason (Building Constructor) (NSQF Level - 3)		Mechanic Diesel (NSQF Level - 4)		Plastic Processing Operator (NSQF Level - 4)	
		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
1	Unit, Fractions-Classification of unit system	✓		✓		✓		✓		✓		✓		✓		✓	
2	Fundamental and Derived units F.P.S, C.G.S, M.K.S and SI units	✓		✓		✓		✓		✓		✓		✓		✓	
3	Measurement units and conversion	✓		✓		✓		✓		✓		✓		✓		✓	
4	Factors, HCF, LCM and problems	✓		✓		✓		✓		✓		✓		✓		✓	
5	Fractions - Addition, subtraction, multiplication & division	✓		✓		✓		✓		✓		✓		✓		✓	
6	Decimal fractions - Addition, subtraction, multiplication & division	✓		✓		✓		✓		✓		✓		✓		✓	
7	Solving problems by using calculator	✓		✓		✓		✓		✓		✓		✓		✓	
II	Square root, Ratio and Proportions, Percentage	✓		✓		✓		✓		✓		✓		✓		✓	
1	Square and square root	✓		✓		✓		✓		✓		✓		✓		✓	
2	Simple problems using calculator	✓		✓		✓		✓		✓		✓		✓		✓	
3	Applications of Pythagoras theorem and related problems	✓		✓		✓		✓		✓		✓		✓		✓	
4	Ratio and proportion	✓		✓		✓		✓		✓		✓		✓		✓	
5	Ratio and proportion - Direct and indirect proportions	✓		✓		✓		✓		✓		✓		✓		✓	
6	Percentage	✓		✓		✓		✓		✓		✓		✓		✓	
7	Percentage - Changing percentage to decimal and fraction	✓		✓		✓		✓		✓		✓		✓		✓	
III	Material Science																
1	Types metals, types of ferrous and non ferrous metals	✓		✓		✕		✓		✓		✓		✓		✓	
2	Physical and mechanical properties of metals	✓		✕		✕		✓		✓		✓		✓		✓	
3	Introduction of iron and cast iron	✕		✓		✕		✕		✓		✓		✓		✓	

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Sr. No.	Title of the Exercise	Instrument Mechanic (NSQF Level - 5)		Wireman (NSQF Level - 4)		Painter (General) (NSQF Level - 5)		Carpenter (NSQF Level - 4)		Foundryman (NSQF Level - 4)		Mason (Building Constructor) (NSQF Level - 3)		Mechanic Diesel (NSQF Level - 4)		Plastic Processing Operator (NSQF Level - 4)	
		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
VI	Heat & Temperature and Pressure																
1	Concept of heat and temperature, effects of heat, difference between heat and temperature, boiling point & melting point of different metals and non-metals	✓		✓		✗		✗		✓		✓		✓		✓	
2	Scales of temperature, Celsius, Fahrenheit, kelvin and conversion between scales of temperature	✓		✓		✗		✗		✓		✓		✗		✗	
3	Heat & Temperature - Temperature measuring instruments, types of thermometer, pyrometer and transmission of heat - Conduction, convection and radiation	✓		✗		✗		✗		✓		✗		✗		✗	
4	coefficient of linear expansion and related problems with assignments	✗		✗		✗		✗		✓		✓		✗		✗	
5	Problem of heat loss and heat gain with assignments	✗		✗		✗		✗		✓		✗		✗		✓	
6	Thermal conductivity and insulators	✗		✗		✗		✗		✓		✗		✗		✓	
7	Concept of pressure - Units of pressure, atmospheric pressure, absolute pressure, gauge pressure and gauges used for measuring pressure	✓		✗		✗		✗		✓		✗		✓		✓	
VII	Basic Electricity																
1	Introduction and uses of electricity, molecule, atom, how electricity is produced, electric current AC,DC their comparison, voltage, resistance and their units	✓		✓		✗		✗		✓		✗		✓		✓	
2	Conductor, insulator, types of connections - series and parallel	✓		✓		✗		✗		✓		✗		✓		✓	
3	Ohm's law, relation between V.I.R & related problems	✓		✓		✗		✗		✗		✗		✓		✗	
4	Electrical power, energy and their units, calculation with assignments	✓		✓		✗		✗		✗		✗		✗		✗	
5	Magnetic induction, self and mutual inductance and EMF generation	✓		✗		✗		✗		✗		✗		✗		✗	
6	Electrical power, HP, energy and units of electrical energy	✓		✓		✗		✗		✗		✗		✗		✗	
VIII	Mensuration																
1	Area and perimeter of square, rectangle and parallelogram	✗		✓		✓		✓		✗		✓		✓		✓	
2	Area and perimeter of Triangles	✗		✓		✓		✓		✗		✓		✗		✓	
3	Area and perimeter of circle, semi-circle, circular ring, sector of circle, hexagon and ellipse	✗		✓		✓		✓		✗		✓		✗		✓	

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(Marks Indiacates ✓Topic Retained and ✕ Indicates Topic Deleted)**

Sr. No.	Title of the Exercise	Instrument Mechanic (NSQF Level - 5)		Wireman (NSQF Level - 4)		Painter (General) (NSQF Level - 5)		Carpenter (NSQF Level - 4)		Foundryman (NSQF Level - 4)		Mason (Building Constructor) (NSQF Level - 3)		Mechanic Diesel (NSQF Level - 4)		Plastic Processing Operator (NSQF Level - 4)	
		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
4	Surface area and volume of solids - cube, cuboid, cylinder, sphere and hollow cylinder	✕		✓		✓		✓		✕		✓		✓		✓	
5	Finding the lateral surface area, total surface area and capacity in litres of hexagonal, conical and cylindrical shaped vessels	✕		✕		✓		✕		✕		✓		✓		✕	

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(Marks Indicates ✓ Topic Retained and ✕ Indicates Topic Deleted)

Sr. No.	Title of the Exercise	Plumber (NSQF Level - 4)		Pump Operator cum Mechanic (NSQF Level - 4)		Sheet Metal Worker (NSQF Level - 3)		Welder (NSQF Level - 4)	
		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
1	Unit, Fractions-Classification of unit system	✓		✓		✓		✓	
2	Fundamental and Derived units F.P.S, C.G.S, M.K.S and SI units	✓		✓		✓		✓	
3	Measurement units and conversion	✓		✓		✓		✓	
4	Factors, HCF, LCM and problems	✓		✓		✓		✓	
5	Fractions - Addition, subtraction, multiplication & division	✓		✓		✓		✓	
6	Decimal fractions - Addition, subtraction, multiplication & division	✓		✓		✓		✓	
7	Solving problems by using calculator	✓		✓		✓		✓	
II	Square root, Ratio and Proportions, Percentage	✓		✓		✓		✓	
1	Square and square root	✓		✓		✓		✓	

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		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
2	Simple problems using calculator	✓		✓		✓		✓	
3	Applications of Pythagoras theorem and related problems	✓		✓		✓		✓	
4	Ratio and proportion	✓		✓		✓		✓	
5	Ratio and proportion - Direct and indirect proportions	✓		✓		✓		✓	
6	Percentage	✓		✓		✓		✓	
7	Percentage - Changing percentage to decimal and fraction	✓		✓		✓		✓	
III	Material Science								
1	Types metals, types of ferrous and non ferrous metals	✓		✓		✓		✓	
2	Physical and mechanical properties of metals	✓		✓		✓		✓	

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			Proposed Date	Date Taken		Proposed Date	Date Taken		Proposed Date	Date Taken		Proposed Date	Date Taken
3	Introduction of iron and cast iron	✓			✗			✓			✓		
4	Difference between iron & steel, alloy steel and carbon steel	✗			✗			✓			✓		
5	Properties and uses of rubber, timber and insulating materials	✗			✗			✓			✓		
IV	Mass, Weight, Volume and Density												
1	Mass, volume, density, weight and specific gravity.	✓			✓			✓			✓		
2	Related problems for mass, volume, density, weight and specific gravity	✓			✓			✓			✓		
V	Speed and Velocity, Work, Power and Energy												
1	Speed and velocity - Rest, motion, speed, velocity, difference between speed and velocity, acceleration and retardation	✗			✓			✗			✗		
2	Speed and velocity - Related problems on speed & velocity	✗			✓			✗			✗		

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		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
3	Work, power, energy, HP, IHP, BHP and efficiency	✕		✓		✕		✕	
4	Potential energy, kinetic energy and related problems with assignment	✕		✕		✕		✕	

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			Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken			
1	Introduction and uses of electricity, molecule, atom, how electricity is produced, electric current AC,DC their comparison, voltage, resistance and their units	✓			✓			✓			✓		
2	Conductor, insulator, types of connections - series and parallel	✕			✕			✕			✕		
3	Ohm's law, relation between V.I.R & related problems	✕			✕			✕			✕		
4	Electrical power, energy and their units, calculation with assignments	✕			✕			✕			✕		
5	Magnetic induction, self and mutual inductance and EMF generation	✕			✕			✕			✕		
6	Electrical power, HP, energy and units of electrical energy	✕			✕			✕			✕		
VIII	Mensuration												
1	Area and perimeter of square, rectangle and parallelogram	✓			✓			✓			✓		
2	Area and perimeter of Triangles	✓			✕			✓			✓		

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		Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
3	Area and perimeter of circle, semi-circle, circular ring, sector of circle, hexagon and ellipse	✓		✕		✓		✓	
4	Surface area and volume of solids - cube, cuboid, cylinder, sphere and hollow cylinder	✓		✓		✓		✓	
5	Finding the lateral surface area, total surface area and capacity in litres of hexagonal, conical and cylindrical shaped vessels	✓		✓		✓		✓	

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			Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken	Proposed Date	Date Taken
IX	Levers and Simple machines									
1	Simple machines - Effort and load, mechanical advantage, velocity ratio, efficiency of machine, relationship between efficiency, velocity ratio and mechanical advantage	✕		✕		✕		✕		
2	Lever & Simple machines - Lever and its types	✕		✕		✕		✕		
X	Trigonometry									
1	Measurement of angles	✓		✓		✓		✓		
2	Trigonometrical ratios	✓		✓		✓		✓		
3	Trigonometrical tables	✕		✓		✓		✓		
4	Application in calculating height and distance (Simple applications)	✕		✕		✕		✕		