

Course Title	(GAS TUNGSTEN ARC WELDING ON ALUMINIUM PLATE)																													
Purpose	(Participant should be able to perform GTAW ON Aluminium metal.)																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INTITUTE,MUMBAI																													
Learning outcomes	For instance- a student of GTAW aluminium course, at the end of the course should be able to— 1 Identify types Aluminium metal. 2 Identify properties Aluminium metal. 3 Identification of Inert gas, Tungsten alloy electrode and types of welding rectifier. 4 Various welding process applicable for welding of aluminium. 5 Fusing of aluminium metal & filler rod. 6 Remove aluminium oxide layer from welding surface. 7 Weld with different joint/position on aluminium metal.																													
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	1	Admission/Introduction of the subject	Welding concept, co-ordination with GTAW.																											
	2	Working principle on GTAW process. Welding rectifier & its type.	Inert gases, tungsten alloy electrode its coding, its application & types. Types of aluminium & filler rods.																											
	3	Straight line beads with & without filler rods	Square butt joint.																											
	4	Fillet Lap & "T" joint.	Corner joint.																											
	5	Performance test of GTAW on aluminium	Feedback/Validation																											
AIDS	Projector, White board, Printer, Machines & Instruments.																													
Instruction material	Soft copy of course content.																													

S.P.KHATAOKAR.
Training Officer (welding)
(A.V.T.S. WELDING)

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Course Title	(GAS TUNGSTEN ARC WELDING ON STAINLESS STEEL PLATE)																										
Purpose	(Participant should be able to perform GTAW ON Stainless steel metal.)																										
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																										
Duration	(ONE WEEK) FIVE DAYS																										
Location	ADVANCED TRAINING INTITUTE,MUMBAI																										
Learning outcomes	For instance- a student of GTAW Stainless steel course, at the end of the course should be able to— 1 Identify types of stainless steel metal. 2 Identify properties of stainless steel metal. 3 Identification of Inert gas, Tungsten alloy electrode and types of welding rectifier. 4 Various welding process applicable for welding of stainless steel. 5 Fusing of stainless steel metal & filler rod. 6 Remove stainless steel oxide layer from welding surface. 7 Weld with different joint/position on stainless steel metal.																										
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	3	Straight line beads with & without filler rods	Square butt joint.																								
	4	Fillet Lap & "T" joint.	Corner joint.																								
	5	Performance test of GTAW on stainless steel	Feedback/Validation																								
AIDS	Projector, White board, Printer, Machines & Instruments.																										
Instruction material	Soft copy of course content.																										

Course Title	(GAS METAL ARC WELDING) CO2 WELDING.																													
Purpose	(Participant should be able to perform GMAW on CO2 welding)																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INTITUTE,MUMBAI																													
Learning outcomes	<p>For instance- a student of GMAW CO2 course, at the end of the course should be able to—</p> <ol style="list-style-type: none"> 1 Identify types of ferrous metal. 2 Identify properties of ferrous metal. 3 Identification of CO2 (Active Gas), wire spool and types of welding rectifier. 4 Various welding process applicable for welding of CO2. 5 Fusing of ferrous metal. 6 Remove ferrous metal oxide layer from welding surface. 7 Weld with different joint/position on ferrous metal. <p>(The course faculty will be able to define here the learning outcomes that can be demonstrated by the eligible students after attending the course.)</p>																													
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	2	Working principle on GMAW process. Welding rectifier & its type.	Active gases, wire spool, its application & types. Types of ferrous metal.																											
	3	Straight line beads	Square butt joint.																											
	4	Fillet Lap & "T" joint.	Corner joint.																											
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AIDS	Projector, White board, Printer, Machines & Instruments.																													
Instruction material	Soft copy of course content.																													

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Course Title	(GMAW) MIG WELDING STAINLESS STEEL PLATE																													
Purpose	(Participant should be able to perform GMAW on MIG welding)																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INTITUTE,MUMBAI																													
Learning outcomes	<p>For instance- a student of GMAW Mig course, at the end of the course should be able to.</p> <p>Gas Metal Arc welding on stainless steel (GMAW-MIG). Safety precautions observed before, during & after welding. Introduction to welding and different welding processes. Gas Metal Arc Welding (MIG) process and its principle Tungsten Electrodes & its Specifications as per Bauru of Indian standard (BIS) & American welding society (AWS) Weld passes i.e. root run, hot pass (Capping Casing) Different Welding defects and their remedies. Need good practice on SMAW & Gas welding Difference between GTAW & Simulation.</p> <p>Practical Gas Metal Arc welding practical on carbon steel.(“T”, Lap, Butt & Corner joint.) Gas Metal Arc welding practical on stainless steel. (“T”, Lap, Butt & Corner joint.) Weld passes i.e. root run, hot pass (Capping Casing) Gas & Electrodes & its Specifications as per Bureau of Indian Standard (BIS) & American welding society (AWS) Need for inspection and testing of weldments Stages of inspection Practical training for the above tests for evaluation of quality of the Weldments. (The course faculty will be able to define here the learning outcomes that can be demonstrated by the eligible students after attending the course.)</p>																													
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	5	Performance test of GTAW on stainless steel	Feedback/Validation																											
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Instruction material	Soft copy of course content.																													

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Course Title	HIGH PRESSURE PIPE WELDING BY GTAW +SMAW																													
Purpose	(Participant should be able to perform HIGH PRESSURE PIPE WELDING BY GTAW +SMAW																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INTITUTE,MUMBAI																													
Learning outcomes	<p>For instance- a student of HIGH PRESSURE PIPE WELDING BY GTAW +SMAW course, at the end of the course should be able to—</p> <p>Gas Tungsten Arc welding and Shielded Metal Arc Welding on carbon steel pipe (GTAW+SMAW).</p> <p>Safety precautions observed before, during & after welding</p> <p>Gas Tungsten Arc welding and Shielded Metal Arc Welding on carbon steel pipe (GTAW+SMAW).</p> <p>Introduction to welding and different welding processes.</p> <p>Gas Tungsten Arc Welding (TIG) process and its principle</p> <p>Tungsten Electrodes & Specifications as per Bauru of Indian standard (BIS) &American welding society (AWS)</p> <p>Various standards of pipes such as A,B,C Class and schedules.</p> <p>Weld passes i.e. root run, hot pass (Capping Casing)</p> <p>Different Welding defects and their remedies.</p> <p>Practical.</p> <p>Pipe in rolled position (1G), Pipe in fixed position 5G), pipe in 45 degrees position (6G).</p> <p>(The course faculty will be able to define here the learning outcomes that can be demonstrated by the eligible students after attending the course.)</p>																													
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	1	Admission/Introduction of the subject	Welding concept, co-ordination with GTAW & SMAW																											
	2	Working principle on GTAW & SMAW process. Welding rectifier & its type.	Pipe in 1G position (Sch 40) root pass by GTAW & fill up with SMAW																											
	3	Pipe in 2G position (Sch 40) root pass by GTAW & fill up with SMAW	Pipe in 1G position (Sch 60) root pass by GTAW & fill up with SMAW																											
	4	Pipe in 2G position (Sch 60) root pass by GTAW & fill up with SMAW	Pipe in 5G position (Sch 80) root pass by GTAW & fill up with SMAW																											
	5	Performance test of GTAW & SMAW by 6G (SCH-80) on carbon steel pipe	Feedback/Validation																											
AIDS	Projector, White board, Printer, Machines & Instruments.																													
Instruction material	Soft copy of course content.																													

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Course Title	PLASMA & OXY-FUEL GAS CUTTING ON FERROUS & NON - FERROUS METALS.																													
Purpose	(Participant should be able to perform plasma cutting on ferrous & non ferrous metals)																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INTITUTE, MUMBAI																													
Learning outcomes	<p>For instance- a student of Plasma cutting course, at the end of the course should be able to—</p> <p>Safety related to various metal cutting. Introduction to metal cutting processes. Concept and Need for plasma cutting Comfortancy to non ferrous metal Different cutting defects and their remedies. Practical. Straight & Bevel cutting on ferrous & non ferrous metal. Polygonal cutting on stainless steel (The course faculty will be able to define here the learning outcomes that can be demonstrated by the eligible students after attending the course.)</p>																													
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	1	Admission/Introduction of the subject	Cutting concept, co-ordination with Plasma arc cutting																											
	2	Working principle on PLASMA process. Welding rectifier & its type.	Various metals cutting process. Types of ferrous & non ferrous metal.																											
	3	Straight line cutting on carbon steel plate on 3mm.	Straight line cutting on carbon steel plate on 10mm.																											
	4	Straight line cutting on stainless steel plate.	Straight line cutting on aluminium plate.																											
	5	Performance test of PLASMA cutting on stainless steel	Feedback/Validation																											
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Course Title	NDT - Liquid Penetrant Test (PT).																													
Purpose	(Participant should be able to perform NDT - Liquid Penetrant Test (PT).																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INSTITUTE, MUMBAI																													
Learning outcomes	<p>For instance- a student of Liquid Penetrant Test (PT) course, at the end of the course should be able to— Safety related to Liquid Penetrant Test (PT). Introduction to welding and different welding processes. Different Welding defects and their remedies. Need for inspection and testing of Weldments Stages of inspection Different testing methods for detecting external (surface and sub-surface) and internal flaws. Non-destructive test. PRACTICAL. Introduction to Liquid penetrant Testing. Liquid penetrant processing Liquid penetrant Testing Methods. Selection of Liquid penetrant Testing Equipments. Selection of liquid penetrant Testing Method. Interpretation & evolution of indications. Liquid penetration process controls. Test procedure standards.</p>																													
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Course schedule	DAY	FORENOON SESSION (9.00 am – 1.00 pm)	AFTERNOON SESSION (1.30 pm – 5.30)																											
	1	Admission/Introduction of the subject	Welding concept, co-ordination with Liquid Penetrant Test (PT).																											
	2	Working principle Liquid Penetrant Test (PT). & its type.	Various Liquid penetrant Testing Methods.																											
	3	Raw material identification.	Coding of PT consumables as par AWS std.																											
	4	PT on ferrous, non ferrous metals.	Practice on PT on ferrous, non ferrous metals.																											
	5	Performance test of on aluminium	Feedback/Validation																											
AIDS	Projector, White board, Printer, Machines & Instruments.																													
Instruction material	Soft copy of course content.																													

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Course Title	NDT - MAGNA PARTICAL TEST (MPT/MPI)																													
Purpose	(Participant should be able to perform magna partical testing)																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INTITUTE,MUMBAI																													
Learning outcomes	<p>For instance- a student of NDT - MAGNA PARTICAL TEST course, at the end of the course should be able to—</p> <p>Safety related to Magnetic Particle Test (MT) Introduction to welding and different welding processes. Different Welding defects and their remedies. Need for inspection and testing of weldments. Stages of inspection Different testing methods for detecting external (surface and sub-surface) and internal flaws. Destructive test- Tensile test, Hardness test, Impact test, Bend test, Fatigue test Non-destructive test Practical. Magnetic Particle Test Principles. Magnetic Particle Test Flux field. Magnetic Particle method of application. Magnetization by means of electric current. Demagnetization. Relevant Equipments. Type of discontinuities. Evaluation techniques. (The course faculty will be able to define here the learning outcomes that can be demonstrated by the eligible students after attending the course.)</p>																													
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	1	Admission/Introduction of the subject	Welding concept, co-ordination with Magnetic testing																											
	2	Working principle Magnetic testing & its type.	Various Magnetic testing Methods.																											
	3	Raw material identification.	Coding of MPT consumables as par AWS std.																											
	4	MPTon ferrous, non ferrous metals.	Practice on MPT on ferrous, non ferrous metals.																											
	5	Performance test of on aluminium	Feedback/Validation																											
AIDS	Projector, White board, Printer, Machines & Instruments.																													
Instruction material	Soft copy of course content.																													

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Course Title	NDT- EDDY CURRENT TEST / FLOW DETECTION																													
Purpose	(Participant should be able to perform Eddy Current Test (ECT))																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INSTITUTE, MUMBAI																													
Learning outcomes	<p>For instance- a student of Eddy Current Test (ECT) course, at the end of the course should be able to Safety related to Eddy Current Test (ECT)</p> <p>Introduction to welding and different welding processes. Different Welding defects and their remedies. Need for inspection and testing of weldments Stages of inspection Different testing methods for detecting external (surface and sub-surface) and internal flaws. Destructive test- Tensile test, Hardness test, Impact test, Bend test, Fatigue test Non-destructive test practical. For detecting external (surface and sub-surface) flaws- Visual Examination, Oil and chalk test, Magnetic particle test, Dye-penetrant Test Eddy Current Test (ECT) Detailed study of the above tests Practical training for the above tests for evaluation of quality of the Weldments (The course faculty will be able to define here the learning outcomes that can be demonstrated by the eligible students after attending the course.)</p>																													
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	1	Admission/Introduction of the subject	Welding concept, co-ordination with Eddy Current Test.																											
	2	Working principle Eddy Current Test & its type.	Various Eddy Current Test Methods & application.																											
	3	Raw material identification.	Coding of Eddy Current Test consumables as per AWS std.																											
	4	Eddy Current Test on ferrous, non ferrous metals.	Practice Eddy Current Test on ferrous, non ferrous metals.																											
	5	Performance test of on aluminium	Feedback/Validation																											
AIDS	Projector, White board, Printer, Machines & Instruments.																													
Instruction material	Soft copy of course content.																													

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Course Title	NDT - ULTRASOUND WAVE TEST (U T)																													
Purpose	(Participant should be able to perform NDT - ULTRASOUND WAVE TEST)																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INTITUTE,MUMBAI																													
Learning outcomes	<p>For instance- a student of NDT - ULTRASOUND WAVE TEST course, at the end of the course should be able</p> <p>Safety related to Ultrasonic Testing (UT) Introduction to welding and different welding processes. Different Welding defects and their remedies. Need for inspection and testing of weldments Stages of inspection Different testing methods for detecting external (surface and sub-surface) and internal flaws. Destructive test- Tensile test, Hardness test, Impact test, Bend test, Fatigue test Non-destructive test practical. For detecting external (surface and sub-surface)flaws- Visual Examination, Oil and chalk test, Magnetic particle test, Dye-penetrant Test Ultrasonic Test UT-equipments, UT-calibrations. Familiarization of UT – probes. Dac and its significances. Ultrasonic testing techniques. Testing of raw materials. UT of welds. Welding process and discontinuities associated with process. Interpretation of UT signals. (The course faculty will be able to define here the learning outcomes that can be demonstrated by the eligible students after attending the course.)</p>																													
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	1	Admission/Introduction of the subject	Welding concept, co-ordination with UT-equipments, UT-calibrations. Familiarization of UT – probes.																											
	2	Working principle on Ultrasonic testing (UT) its type & UT-calibrations.	Various Ultrasonic testing Methods.																											
	3	Raw material identification.	Coding of UT consumables as par AWS std.																											
	4	UT on ferrous, non ferrous metals & UT-calibrations.	Practice on UT on ferrous, non ferrous metals.																											
	5	Performance test of UT on STAINLESS STEEL Plate.	Feedback/Validation																											
AIDS	Projector, White board, Printer, Machines & Instruments.																													
Instruction material	Soft copy of course content.																													

Course Title	NDT - RADIOGRAPHIC FILM INTERPRITARSHIP (RFI)																													
Purpose	(Participant should be able to perform RADIOGRAPHIC FILM INTERPRITARSHIP (RFI))																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INTITUTE,MUMBAI																													
Learning outcomes	<p>For instance- a student of RADIOGRAPHIC FILM INTERPRITARSHIP (RFI))course, at the end of the course should be able to—</p> <p>Safety related to Radiographic Film Interpretation (RFI) Introduction to welding and different welding processes. Different Welding defects and their remedies. Need for inspection and testing of Weldments. Stages of inspection Different testing methods for detecting external (surface and sub-surface) and internal flaws. Non-destructive test- Introduction to NDT. Radiographic principles Radiography sources. Radiography techniques. Film processing. Radiographic film imaging quality. Interpretation of radiographs. Standards and codes. Radiographic film interpretations practical. (The course faculty will be able to define here the learning outcomes that can be demonstrated by the eligible students after attending the course.)</p>																													
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Course schedule	DAY	FORENOON SESSION (9.00 am – 1.00 pm)	AFTERNOON SESSION (1.30 pm – 5.30)																											
	1	Admission/Introduction of the subject.	Welding concept, co-ordination with Radiographic Film Interpretation (RFI)																											
	2	Working principle to Radiographic Film Interpretation (RFI) & type of film imaging quality	Various RFI Methods.																											
	3	Raw material identification.	Coding of RFI consumables as par AWS std.																											
	4	RFI of various films	Practice on RFI of various films																											
	5	Performance test of RFI of various films	Feedback/Validation																											
AIDS	Projector, White board, Printer, Machines & Instruments.																													
Instruction material	Soft copy of course content.																													

Course Title	DESTRUCTIVE TESTING OF WELDMENT																										
Purpose	(Participant should be able to perform DESTRUCTIVE TESTING OF WELDMENT)																										
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																										
Duration	(ONE WEEK) FIVE DAYS																										
Location	ADVANCED TRAINING INTITUTE,MUMBAI																										
Learning outcomes	<p>For instance- a student of DESTRUCTIVE TESTING OF WELDMENT course, at the end of the course should be able to—</p> <p>Safety related to DESTRUCTIVE TESTING OF WELDMENT / METERIAL.</p> <p>Introduction to Destructive testing and different testing processes.</p> <p>Different Welding defects and their remedies.</p> <p>Need for inspection and testing of weldments</p> <p>Stages of inspection</p> <p>Different testing methods for detecting external (surface and sub-surface) and internal flaws.</p> <p>Various types of metals and its specifications.</p> <p>DESTRUCTIVE TESTING is applied to identify the Mechanical properties of metal and non metals.</p> <p>Stress and strains of metal and non metal</p> <p>Destructive test- Tensile test, Hardness test, Impact test, Bend test, Fatigue test</p> <p>Destructive test practical.</p> <p>For detecting external (surface and sub-surface)flaws- Visual Examination, Oil and chalk test, Magnetic particle test, Dye-penetrant Test</p> <p>Type, capacity, working principle and function of universal testing machine.</p> <p>Detailed study of the above tests</p> <p>Practical training for the above tests for evaluation of quality of the Weldments</p> <p>(The course faculty will be able to define here the learning outcomes that can be demonstrated by the eligible students after attending the course.)</p>																										
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	1	Admission/Introduction of the subject	Introduction to Destructive testing and different Testing processes. Different Welding defects and their remedies.																								
	2	Working principle on UTM process & its type.	Impact testing , Bend testing on UTM																								
	3	Tensile testing, Hardness testing on UTM	Impact testing , Bend testing & Fatigue testing on UTM																								
	4	Calibration by UTM.	Practice on UTM																								
	5	Performance test of UTM on various sections.	Feedback/Validation																								
AIDS	Projector, White board, Printer, Machines & Instruments.																										
Instruction material	Soft copy of course content.																										

Course Title	INSPECTION & TESTING OF WELDS																													
Purpose	(Participant should be able to perform Inspection & Testing of Welds)																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INTITUTE,MUMBAI																													
Learning outcomes	<p>For instance- a student of Inspection & Testing of Welds course, at the end of the course should be able to—</p> <p>Safety related to Inspection & Testing of Welds</p> <p>Introduction to welding and different welding processes.</p> <p>Different Welding defects and their remedies.</p> <p>Need for inspection and testing of Weldments.</p> <p>Stages of inspection</p> <p>Different testing methods for detecting external (surface and sub-surface) and internal flaws.</p> <p>Inspection & Testing of Welds PRACTICAL.</p> <p>Introduction to types & method of inspection & testing of weldments.</p> <p>Before, during & after welding inspection.</p> <p>Types of weld surface defects it's causes & remedial measures.</p> <p>Definition & application of NDT & DT.</p> <p>Liquid penetrant Testing Methods.</p> <p>MPT,RFI, UT & EDDY process details & application.</p> <p>Interpretation & evolution of indications.</p> <p>Test procedure standards.</p> <p>(The course faculty will be able to define here the learning outcomes that can be demonstrated by the eligible students after attending the course.)</p>																													
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	1	Admission/Introduction of the subject.	Welding concept, co-ordination with Inspection & Testing of Welds																											
	2	Working principle to Inspection & Testing of Welds	Various Inspections of Welds Methods.																											
	3	Raw material identification.	Coding of PT,RFI,UT,MT EDDY & DT equipments & consumables as par AWS std.																											
	4	Hands on PT,MT,UT,RFI & DT of various processes.	Practice Hands on PT,MT,UT,RFI & DT of various processes.																											
	5	Performance test of RFI,PT & MT.	Feedback/Validation																											
AIDS	Projector, White board, Printer, Machines & Instruments.																													
Instruction material	Soft copy of course content.																													

Course Title	GMAW ON SIMULATOR																													
Purpose	(Participant should be able to perform GMAW ON SIMULATOR)																													
Eligibility	(Degree/ Diploma in relevant branch of Engineering or NTC/NAC with 2-3 years relevant trade experience)																													
Duration	(ONE WEEK) FIVE DAYS																													
Location	ADVANCED TRAINING INTITUTE,MUMBAI																													
Learning outcomes	<p>For instance- a student of GMAW ON SIMULATOR course, at the end of the course should be able to— GTAW, SMAW, PAW & GMAW ON SIMULATORS. Safety precautions observed before, during & after welding. Introduction to welding and different welding processes. Different Welding defects and their remedies. Need good practice on SMAW & Gas welding Difference between GTAW & Simulation. Practical Gas welding practical on carbon steel. GTAW, GMAW, SMAW & PAW on Simulator. Evolution study on simulator. Weld passes i.e. root run, hot pass (Capping Casing) Gas Tungsten Arc Welding ,Tungsten Electrodes & its Specifications as per Bureau of Indian Standard (BIS) & American welding society (AWS) Need for inspection and testing of weldments Stages of inspection Practical training for the above tests for evaluation of quality of the Weldments. (The course faculty will be able to define here the learning outcomes that can be demonstrated by the eligible students after attending the course.)</p>																													
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Course schedule	DAY	FORENOON SESSION (9.00 am – 1.00 pm)	AFTERNOON SESSION (1.30 pm – 5.30)																											
	1	Admission/Introduction of the subject	Welding concept, co-ordination with GMAW.																											
	2	Working principle on GMAW process. Welding SIMULATOR & its type.	Active gases, wire spool, its application & types. Types of ferrous metal.																											
	3	Straight line beads with feed back report.	Square butt joint. with feedback report.																											
	4	Fillet Lap & "T" joint. With feedback report.	Corner joint. With feedback report.																											
	5	Performance test of GMAW SIMULATOR on various joint.	Feedback/Validation																											
AIDS	Projector, White board, Printer, Machines & Instruments.																													
Instruction material	Soft copy of course content.																													

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