



Time Table

Course		20-SCMA-3	Course for directly recruited Chemical & Metallurgical Assistants		
Course Duration		07-12-2020 to 29-01-2021		TimeTable Duration	07-12-2020 to 29-01-2021
No. of Participants		50		Venue	New Computer Examination Lab
Course Director		AP(EM)		Course Counselor	CI(EM-2)
Time Duration					
Date	09:15:00 - 11:15:00	11:30:00 - 13:30:00	14:30:00 - 16:30:00	16:30:00 - 17:30:00	
SCMA- Week 1 (07-12-2020 to 11-12-2020) - AP(EM)					
07-12-2020	Introduction and Course Guidance	Role of M&C in Indian Railways AP(EM)	Introduction to Mechanical Engineering Department CI(EM-2)	Doubt clearance session-1	
08-12-2020	Crystal structure of metals and Phase Rule CI(EM-2)	Iron Carbon Diagram CI(EM-2)	Corrosion Basics CI(EM-3)	Doubt clearance session-1	
09-12-2020	Basics of Heat Treatment & TTT Diagram CI(EM-2)	Different types of Heat Treatment CI(EM-2)	Steel Making AP(EM)	Doubt clearance session-1	
10-12-2020	Corrosion causes and inhibition CI(EM-3)	Electric Arc Furnace Operation AP(EM)	Special Heat Treatment(2HRS) CI(EM-2)	Doubt clearance session-1	
11-12-2020	Introduction to types of Steel and their properties CI(EM-2)	Corrosion Prevention Techniques in IR CI(EM-3)	Refractory Management AP(EM)	Doubt clearance session-1	
12-12-2020	Saturday - Weekly Rest				
13-12-2020	Sunday - Weekly Rest				
SCMA- Week 2 (14-12-2020 to 18-12-2020) - AP(EM)					
14-12-2020	Different cutting and gouging processes in IR AP(EM)	Magnetic particle Inspection CI(EM-3)	Visual Examination, DPT, MPT, Zyglo LECT. (EM)	Doubt clearance session-1	
15-12-2020	Hardness Testing Theory , BHN, Rockwell, Vickers LECT. (EM)	Overview of Welding processes-I AP(EM)	Overview of Welding processes-II AP(EM)	Doubt clearance session-1	
16-12-2020	Impact Testing; Charpy, Izod Tests LECT. (EM)	Tensile Testing Basics CI(EM-2)	Wagon & Coach Numbering System CI(C&W-2)	Doubt clearance session-1	
17-12-2020	Ultrasonic Testing CI(EM-2)	Different type of Bogies & Components in C&W CI(C&W-1)	Types of Coaches and Wagons and their Identification CI(C&W-1)	Doubt clearance session-1	
18-12-2020	Wet Analysis of Elements-I CI(EM-2)	Eddy Current Testing Tecniqe CI(EM-3)	Wet Analysis of Elements-II CI(EM-2)	Doubt clearance session-1	
19-12-2020	Saturday - Weekly Rest				
20-12-2020	Sunday - Weekly Rest				
SCMA- Week 3 (21-12-2020 to 24-12-2020) - AP(EM)					
21-12-2020	Weldability of Mild Steel & Low Alloy Steels AP(EM)	Different Types of Rubbers in IR CI(EM-3)	Rubber Testing CI(EM-2)	Doubt clearance session-1	
22-12-2020	Polymer, Rubber and composites used in IR and their properties CI(EM-2)	Radiography Testing LECT. (EM)	Introduction to Composites CI(EM-2)	Doubt clearance session-1	

Every 1 hr of lecture is followed by a 5 minute break

23-12-2020	Plastics Materials and its applications in IR CI(EM-3)	Paints , its constituents and functions CI(EM-2)	Different Paints used in IR and Painting Schedule of coaches and wagons CI(EM-2)	Doubt clearance session-1
24-12-2020	Painting Schedule of Coaches and Wagons CI(EM-2)	Paint Testing-I CI(EM-2)	Basic Concept of Foundry VL	Doubt clearance session-1
25-12-2020	CHRISTMAS DAY			
26-12-2020	Saturday - Weekly Rest			
27-12-2020	Sunday - Weekly Rest			
SCMA- Week 4 (28-12-2020 to 01-01-2021) - AP(EM)				
28-12-2020	Characteristics of Lube Oil & its Testing LECT. (EM)	Lube Oil System (ALCO) LECT(DSL)	Fuel Oil System LECT(DSL)	Doubt clearance session-1
29-12-2020	HHP Loco Basics LECT(DSL)	HHP Transmission Sysytem LECT(DSL)	Characteristics of Fuel Oil and its Testing LECT. (EM)	Doubt clearance session-1
30-12-2020	Bio Toilet 2h CI(EM-3)	Fundamentals of Mech. Engg. Drawing CI (WMT)	Coolant Water Testing LECT. (EM)	Doubt clearance session-1
31-12-2020	Doubt Clearing Session AP(EM)	MODULE EXAMINATION- 2HR	Class on YOGA VL	Group Activities
01-01-2021	IMS in IR-II CI(EM-2)	Calibration & Metrology CI (WMT)	Precision Measurement 2h CI (WMT)	Doubt clearance session-1
02-01-2021	Saturday - Weekly Rest			
03-01-2021	Sunday - Weekly Rest			
SCMA- Week 5 (04-01-2021 to 08-01-2021) - AP(EM)				
04-01-2021	Welding Defects-I AP(EM)	Welding Power Source CI (ELECT)	Macro & Micro Structure LECT. (EM)	Doubt clearance session-1
05-01-2021	Quality Issues in welding & introduction to ISO 3834 AP(EM)	Basic Principle of Spectrograph CI(EM-2)	Failure Investigation LECT. (EM)	Doubt clearance session-1
06-01-2021	Gas Chromatography CI(EM-2)	Weldability of Stainless Steels AP(EM)	Stainless Steel Welding and associated problems AP(EM)	Doubt clearance session-1
07-01-2021	Wear Element Analysis of Lube Oil and DGA CI(EM-3)	Electric Loco Basics CI (ELECT)	IS Codification of Electrodes AP(EM)	Doubt clearance session-1
08-01-2021	Types of Composite Materials CI(EM-2)	testing of Composites & FRP Materials CI(EM-2)	Testing of Transformer Oil and DGA-I CI(EM-3)	Doubt clearance session-1
09-01-2021	Saturday - Weekly Rest			
10-01-2021	Sunday - Weekly Rest			
SCMA- Week 6 (11-01-2021 to 15-01-2021) - AP(EM)				
11-01-2021	Industrial Safety CI(EM-2)	Basics of Pass Rule , Leave Rule CI(EM-3)	Basics of Stores Working LECT. (EM)	Doubt clearance session-1
12-01-2021	Introduction to E-Office PMECH	Layout and parts of a computer TVP	Fundamental of computer & Basics of MS word TVP	Doubt clearance session-1
13-01-2021	Basics of Rajbhasha Niti CI(EM-3)	D&AR CI(EM-3)	Introduction to RTI, Procedure Filing & Case study CI(EM-3)	Doubt clearance session-1
14-01-2021	Manual of Office procedures CI(EM-2)	Inspection procedure of Stock, Non-stock & M&P items, Sampling plans, RITES inspection, Procedure fo AP(EM)	NABL Accreditation CI(EM-2)	Doubt clearance session-1
15-01-2021	Bio Diesel CI(EM-3)	ETP & Waste Management CI(EM-3)	Leave Rule , Pass Rule -II CI(EM-3)	Doubt clearance session-1

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16-01-2021	Saturday - Weekly Rest			
17-01-2021	Sunday - Weekly Rest			
SCMA Project Activity (18-01-2021 to 22-01-2021) - AP(EM)				
18-01-2021				Doubt clearance session-1
19-01-2021				
20-01-2021				
21-01-2021				
22-01-2021				
23-01-2021	Saturday - Weekly Rest			
24-01-2021	Sunday - Weekly Rest			
SCMA- Week 8 (25-01-2021 to 29-01-2021) - AP(EM)				
25-01-2021	Project Review	Project Review	Project Review	Group Activities
26-01-2021				
27-01-2021	Project Review	Project Review	Project Review	Group Activities
28-01-2021	Project Review	Project Review	Project Review	Group Activities
29-01-2021	Doubt Clearing Session AP(EM)	MODULE EXAMINATION- 2HR	Valedictory Session & Feedback- I	Valedictory Session & Feedback