



भारत सरकार - रेल मंत्रालय  
भारतीय रेल सिग्नल और दूरसंचार संस्थान,  
तारनाका रोड, सिक्ंदराबाद - 500017 - 500017  
Government of India – Ministry of Railways  
Indian Railways Institute of Signal Engineering and Telecommunications, Tarnaka Road,  
Secunderabad – 500 017

No.Trg/Modules/Version-4

दिनांक Date: 24.07.2024

**PCSTEs**  
**All Zonal Railways**

Sub: Revised Training Module of Refresher Course for SSE/JE (Signal and Design)

Ref: This office letter of even number dated 11.01.2022.

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The approved Training Module of Refresher Course for SSE/JE(Signal and Design) circulated to Zonal Railways vide reference quoted above is reviewed. The revised training module incorporating the changes is enclosed herewith. This module comes into effect from the next Refresher Course for Signal Supervisors.

This has the approval of Director General, IRISSET. The updated Training Module is placed under Training Modules of Course Calendar Section of IRISSET Intranet Website.

**(सी. नीलकंठा रेड्डी)**

(C. Neelakanta Reddy)

व.आ.प्रशि Sr.Professor-Trg

Encl: As stated above

कृते महा निदेशक for Director General

**Copy to:**

PED/Co-ord. (Signal)/Railway Board } for kind information

**REVISED TRAINING MODULE OF  
REFRESHER COURSE FOR SSE/JE (SIGNAL & DESIGN)**

**A. Programme Summary**

Sl .No.	Details	Existing Hours	Revised Hours
1.	Briefing, Registration & OHD	03	02
2	Theory	80	74
3	Theory Examination	02	02
4	Practicals	29	37
5	CD Spare / Holiday / Library	06	05
TOTAL		120	120

**B: Summary of Evaluation**

There is no change in the duration and maximum marks of the examination.

Sl No.	Topic	Hours	Marks
1	Theory Exam (Objective-70% & Subjective-30% )	02	100
2	Organizational Skills (50% weightage for writing Skills and 50% weightage for oral skills)	---	25
3	Trainees' s participation in extra-curricular activities	---	25
TOTAL			150

**C:Theory**

Sl.No.	Sub. Code	Subject	Existing Hrs	Revised Hours	Existing Marks	Revised Marks
1	S-7	Signalling in 25KV AC Electrified Section	4	2	4	2
2	S-8	Signalling General	4	4	6	8
3	S-9	Power Supply for Signalling	3	1	6	2
4	S-10	Colour Light Signalling	2	1	6	2
5	S-11R	Data Logger	3	1	6	2
6	S-12/ S14	Relay Interlocking - Metal to Carbon Relays (British) <b>OR</b> Relay Interlocking- Metal to Metal Relays (Siemens)	7	5	18	16
7	S-18	Electronic Interlocking	8	6	12	25
8	S-18A	Electronic Interlocking Design	9	11		
9	S-20	Lever Lock, Circuit controllers, Electrical key Transmitter, Principles of slotting and Electric Lifting Barriers	2	0	0	0
10	S-21	Electric Point Machine	2	2	6	4
11	S-24	Intermediate Block Signalling, Block Proving Axle Counters , UFSBI and Automatic Signalling	4	6	10	8
12	S-25	Train Detection Systems-I (DC Track Circuits, Coded AFTC and SSDAC)	2	1	5	3
13	S-26	Train Detection Systems-II (MSDAC)	4	2	10	6
14	S-27	Signalling Safety	2	4	0	8
15	S-28	TPWS,AWS,ETCS& CTC/TMS	4	1	8	4

Sl.No.	Sub. Code	Subject	Existing Hrs	Revised Hrs	Existing Marks	Revised Marks
16	S-28A	KAVACH- Indian Rly Automatic Train protection System	2	3	3	6
17	S29	Railway Signalling - Installation and Quality Practices	0	2	0	4
18	G-3	(A) Disaster Management & Accident communication	2	2	0	0
		(B) Jointing findings of Accident inquiry	0	2	0	0
19	G-4	Establishment & DAR	3	3	0	0
20	G-5	Stores & Accounts	4	4	0	0
21	G-6	Tenders & Contract	3	3	0	0
22	G-7	Vigilance	2	2	0	0
23	G8	Quality & Reliability Standards	2	2	0	0
24	EL1	Extension Lecture (P-Way)	2	2	0	0
25	ST1	Telecom for Signalling	0	2	0	0
Total			80	74	100	100

**D: Practicals**

Sl No.	Name of the Lab	Existing Hrs	Revised Hrs for JE/SSE(Sig)	Revised Hrs for JE/SSE (Design)
1	Electrical Signalling Lab	08	14	16
2	Block Signalling Lab (including Automatic Signalling)	07	07	00
3	Outdoor Signalling Lab	04	06	00
4	Train Detection Lab (Including Kavach)	10	10	10
5	Auto CAD Lab	0	0	11
TOTAL		29	37	37

**E: Theory Examination**

Exam	Type	Subjects	Marks	Hrs	Remarks
1	Subjective	S12/S14,S18 & S18A	30	01	There is no change in the duration and maximum marks of the examination.
2	Objective	S7, S8, S9, S10, S11R, S21,S24, S25, S26, S28, S28A	70	01	
TOTAL			100	02	

**F: CD Spare /Holiday/Library**

Sl No	Details	Existing Hrs	Revised Hrs
1	Holidays, Library, Local Visit, Shramdaan, Social service, Extra hours for any subject etc	06	05