



दक्षिण पूर्व मध्य रेलवे
South East Central Railway



मुख्यालय, कार्मिक विभाग, प्रथम तल, महाप्रबंधक कार्यालय, बिलासपुर (छ. ग.) 495004
HEADQUARTER, PERSONNEL DEPARTMENT, 1st FLOOR, GM's OFFICE, BILASPUR(C.G.) 495004

No. P-HQ/CON/452/EL-70%/e-66114/ 9 / ~~682~~ 682

Dated:29/10/2022

AGM, SECRETARY TO GM/SECR, PCEE, CAO/Con, SDGM /SECR
CEDE, CELE, CEGE, SDGM/SECR,
CSO, CAO (Con), CEE (Con), CPO (A)/SECR.
DRM/BSP, R, NGP, CWM/WRS/R & CWM/WS/MIB.
Dy CPO (HQ), Dy CPO (Con). /BSP
GM (P) SER/GRC, GM (P) ECoR /BBS, GM (P) CORE/ALD

Sub:- Alert Notice for selection for formation of a panel of ADEE/AEEE
(Gr 'B') against 70% DPQ (9th cycle) of Electrical department in SECR.

Ref:- Board's letter No. E(GP)2022/2/4, Date:28/06/2022 and Dtd.18/10/2022.

Vide Board's letter under reference, It has been decided to introduce Centralized Computer Based Objective type examination (CBT) for conducting 70% selections and 30% LDCE in all departments having organized services from the vacancy cycle beginning from 01/01/2023, which is proposed to be conducted on 22/01/2023 by NAIR/BRC.

Accordingly, it has been decided to conduct a selection for formation of a panel of ADEE/AEEE against 70% DPQ (9th Cycle), PB 2 Rs.9300-34800, Grade Pay Rs.4800 (VI-PC)/ (Pay Matrix Level-08 of VII PC) for which tentative vacancies have been assessed for the present is given below, which may decrease at the time of final notification in future after finalization of ongoing 30% LDCE for 8th cycle (03 (UR-02, ST-01, vacancies) depending upon number of candidates empanelled.

Post	Tentative Vacancies			
	UR	SC	ST	Total
ADEE/AEEE (Gr "B")	05	00	01	06

A list of Senior Supervisor of Electrical Department, having lien in S.E.C.Railway, strictly provisional based on integrated seniority list is enclosed for alertness of the candidates (Main list, Annexure-A) and (Standby list, Annexure-B). Actual Main List and Reserved / Standby list will be issued according to final vacancy assessment and option will be called from the willing candidates for the examination with final notification in due course. If any candidate is unwilling to appear in the selection, he may submit his written unwillingness before 12/11/2022 to the concerned Personnel Branch and that list should be forwarded to PCPO Office, Gaz/Confidential section before 15/11/2022.

Contd....2

The concerned controlling officers/ Personnel officer should ensure that the ACRS/ APARS for the last five years, complete in all respects, updated Service Records and Personal File of the candidates as per enclosed list are kept ready so as to ensure their prompt submission to PCPO (Gaz)/SECR) as and when called for.

In terms of para 10.5 of Master circular No.68, no syllabus has been prescribed for the Group-B 70% DPQ written examination. However, the indicative syllabus for the post of AEN/ AXEN (Group-B) 70% of professional subject, establishment and Finance rules etc. for written test is enclosed in **Annexure-C**. Further integrated syllabus will be issued later as and when issued from Railway Board.

All concerned are requested to give wide publicity of the above alert notice to all concerned Divisions /Unit at the earliest. This may be noted that this is only an alert notice for the purpose of intimation to eligible candidates and pre-selection coaching for SC-ST candidates wherever applicable.

Encl: As above


(Neeraj Anand)
Deputy Chief Personnel Officer(Gaz)
for Principal Chief Personnel Officer

No. P-HQ/CON/452/EL-70%/e-66114/ 9 /

Dated:29/10/2022

Copy forwarded for information and necessary action to:

1. Sr.DPO/DPO/BSP,R &NGP, APO(Bills)/HQ
2. Sr. DEE (OP), GENL., TRD, TRS/ BSP, R, NGP
3. All Personnel Department Officers/ HQ/SECR
4. GS/DPMRMC/BSP, GS/AISC-ST/Association/BSP.
5. NOTICE BOARD


for Principal Chief Personnel Officer

Provisional integrated seniority list in pay RS.6500-10500/-, RS.4600/-, level-7 of ELECTRICAL DEPTT /SECR, (MAIN LIST)
(ANNEXURE-A)

S/N	Name(Sri/Smt)	Comm.	Designation	Divn/UNIT	Present Scale/GP	DOB	DOA	DOP 5000-8000 & GP-4200/-	DOP 6500-10500 IN GP-4600/-	DATE OF ELIGIBILITY GRADE OF RUNNING STAFF GP-4200/- EQUATED WITH GP-4600/-
1	MANOJ KUMAR DEWANGAN	UR	LPM/ML/ELECT	BSP	4200/L-6	11/09/1967	20/03/1986	11/04/1991	-	11/04/1991
2	S R MARDIKAR	UR	CLI/ELECT	BSP	4600/L-7	26/12/1965	28/10/1988	05/09/1991	02-06-2010	05/09/1991
3	RAHUL PRADHAN	UR	CLI	R	4600/L-7	19-03-1967	20-03-1986	08/12/1992	11/01/2003	08/12/1992
4	Bhanu Pratap Singh	UR	CLI/NGP	NGP	4600/L-7	22/09/1964	21/07/1988	10/01/1994	26/03/2007	10/01/1994
5	D.K BAG	SC	LPM/ML/ELECT	BSP	4200/L-6	11/08/1964	07/09/1988	06/05/1994	-	06/05/1994
6	Mukesh Kumar Yadav	UR	CLI/NGP	NGP	4600/L-7	15/03/1966	07/07/1988	30/09/1994	26/05/2007	30/09/1994
7	Mohd- Saleem Arif	UR	CLI/NGP	NGP	4600/L-7	07/11/1966	15/07/1988	16/10/1994	05/12/2006	16/10/1994
8	Akhilesh Kumar Saxena	UR	CLI/NGP	NGP	4600/L-7	01/05/1964	15/07/1988	16/10/1994	06/12/2006	16/10/1994
9	S K TRIPATHI	UR	CLI	R	4600/L-7	07/05/1966	15-02-1988	01/01/1996	11/01/2003	01/01/1996
10	SHYAM LAL GANGBER	UR	CLI	R	4600/L-7	04/01/1965	18-03-1986	01/01/1996	23-06-2009	01/01/1996
11	G.V.K.VISWNADHAM	UR	LPM/ML/ELECT	BSP	4200/L-6	10/03/1971	05/08/1991	27/07/1996	-	27/07/1996
12	SHIV KUMAR GUPTA	UR	CLI/ELECT	RIG	4600/L-7	13/03/1964	21/04/1989	29/10/1996	03-12-2013	29/10/1996
13	P.K.ROUTRAY	UR	LPM/ML/ELECT	BSP	4200/L-6	01/06/1964	07/09/1988	29/10/1996	-	29/10/1996
14	NIRANJAN SAHU	UR	CLI/ELECT	RIG	4600/L-7	02/07/1965	12/09/1988	01-11-1996	29/10/2004	01-11-1996
15	RAJU A	UR	LPM	R	4200/L-6	06/01/1963	05/09/1988	16-11-1996	-	16-11-1996
16	P.RANJAN	UR	LPM/ML/ELECT	BSP	4200/L-6	06/05/1964	17/09/1988	18/11/1996	-	18/11/1996
17	SIRIGIRI TEJO SRINIVASAN	UR	CLI/ELECT	BSP	4600/L-7	02/06/1965	29/08/1987	20-11-1996	29/10/2004	20/11/1996
18	B.K DAS	UR	CLI/ELECT	BSP	4600/L-7	01/07/1966	27/03/1989	20-11-1996	29/10/2004	20/11/1996
19	M. VERMA	UR	LPM/ML/ELECT	BSP	4200/L-6	13/07/1964	06/10/1988	20/11/1996	-	20/11/1996
20	CHHOTE LAL	UR	LPM/ML/ELECT	BSP	4200/L-6	15/02/1965	13/10/1989	27/11/1996	-	27/11/1996
21	BALABHADRA SAHOO	UR	LPM/ML/ELECT	BSP	4200/L-6	30/07/1966	13/09/1988	03/12/1996	-	03/12/1996
22	AJIT KUMAR VERMA	UR	CLI	R	4600/L-7	16-05-1965	02/10/1988	26-12-1996	25-01-2005	26-12-1996
23	ZAHID PARVESH	UR	CLI	R	4600/L-7	29-09-1966	09/06/1990	10/03/1997	25-01-2005	10/03/1997
24	B.O.BILUNG	ST	SSE	BSP	4600/L-7	30-06-1964	05/06/1996	-	05/06/1997	05/06/1997

Provisional integrated seniority list in pay RS.6500-10500/-, RS.4600/-, level-7 of ELECTRICAL DEPTT /SECR, (STANDBY LIST)
(ANNEXURE-B)

S/N	Name(Sri/Smt)	Comm.	Designation	Divn/UNIT	Present Scale/GP	DOB	DOA	DOP 5000-8000 & GP-4200/-	DOP 6500-10500 IN GP-4600/-	DATE OF ELIGIBILITY GRADE OF RUNNING STAFF GP-4200/- EQUATED WITH GP-4600/-
25	ASHISH VASANT BAPAT	UR	CLI/ELECT	BSP	4600/L-7	15/05/1967	07/06/1988	08-08-1997	18-12-2006	08/08/1997
26	P.K.SAHOO	UR	CLI/ELECT	BSP	4600/L-7	23/05/1964	10/09/1988	08-08-1997	18-12-2006	08/08/1997
27	RAVINDRA KUMAR	UR	LPM/ML/ELECT	BSP	4200/L-6	08/11/1965	25/05/1989	08/08/1997	-	08/08/1997
28	A.S.BAGHEL	UR	LPM/ML/ELECT	BSP	4200/L-6	10/11/1964	13/10/1989	08/08/1997	-	08/08/1997
29	MANIK CHAND KHAIRWAR	UR	LPM/ML/ELECT	BSP	4200/L-6	02/10/1967	07/03/1990	08/08/1997	-	08/08/1997
30	S CHAKRABORTY	UR	LPM/ML/ELECT	BSP	4200/L-6	10/03/1969	04/04/1990	08/08/1997	-	08/08/1997
31	BINOD KUMAR GUPTA	UR	LPM/ML/ELECT	BSP	4200/L-6	19/12/1969	07/10/1991	08/08/1997	-	08/08/1997
32	SISIRA KUMAR DAS	UR	CLI/ELECT	BSP	4600/L-7	05/07/1966	16/08/1989	14-08-1997	20-02-2007	14/08/1997
33	S K TRIPATHY	UR	CLI/ELECT	BSP	4600/L-7	12/05/1967	16/08/1989	14-08-1997	20-02-2007	14/08/1997
34	PAVAN KHARE	UR	CLI/ELECT	BSP	4600/L-7	07/07/1966	21/08/1989	14-08-1997	20-02-2007	14/08/1997
35	MANOJ KUMAR PANDABA	UR	CLI/ELECT	BSP	4600/L-7	24/03/1968	28/08/1989	14-08-1997	20-02-2007	14/08/1997
36	AJAY KUMAR	UR	CLI/ELECT	BSP	4600/L-7	01/03/1969	17/03/1992	14-08-1997	20-02-2007	14/08/1997
37	BIJAY KUMAR SAHA	UR	CLI	R	4600/L-7	03/12/1967	15-09-1988	15-08-1997	25-01-2005	15-08-1997
38	SUNIL KUMAR SAHU	UR	LPM/ML/ELECT	BSP	4200/L-6	06/03/1970	26/08/1989	29/08/1997	-	29/08/1997
39	N N SHRIRAM	ST	SSE/HQ	HQ	4600/L-7	06/08/1965	29/01/1990	-	12/07/1998	12/07/1998
40	SANJAY AGRAWAL	UR	SSE/ELS/BIA/R	ELS	5400/L-9	07/01/1969	15/09/1997	-	15/09/1998	15/09/1998
41	D. K. GUPTA	UR	LPM/ML/ELECT	BSP	4200/L-6	30/06/1969	09/12/1991	23/12/1998	23/12/1998	23/12/1998
42	J.S SENGARA	UR	LPM/ML/ELECT	BSP	4200/L-6	28/10/1969	10/12/1991	23/12/1998	23/12/1998	23/12/1998
43	G GOVIND RAO	ST	CLI/ELECT	BSP	4600/L-7	24/12/1967	04/06/1990	23/12/1998	10-07-2008	23/12/1998
44	P.K.SHRIVASTAVA	UR	CLI/ELECT	BSP	4600/L-7	10/10/1969	09/12/1991	23/12/1998	10-07-2008	23/12/1998
45	ADYA PRASAD	UR	CLI/ELECT	BSP	4600/L-7	07/04/1971	10/12/1991	23/12/1998	02-06-2010	23/12/1998
46	A.N.PANDEY	UR	CLI/ELECT	BSP	4600/L-7	15/05/1971	10/12/1991	23/12/1998	03-12-2013	23/12/1998
47	S.C.MAURYA	UR	CLI/ELECT	BRJN	4600/L-7	01/12/1969	17/12/1991	23/12/1998	12-10-2017	23/12/1998
48	H.S.BHADAURIA	UR	LPM/ML/ELECT	BSP	4200/L-6	20/06/1969	10/12/1991	23/12/1998	-	23/12/1998
49	I.P.SINGH	UR	LPM/ML/ELECT	BSP	4200/L-6	08/06/1970	20/12/1991	23/12/1998	-	23/12/1998
50	RAJENDRA SHUKLA	UR	LPM/ML/ELECT	USL	4200/L-6	12-07-1969	10.12.1991	23/12/1998	-	23/12/1998
51	J K SHARMA	UR	LPM	R	4200/L-6	24-12-1965	03/08/1990	28-12-1998	-	28-12-1998
52	BALESWAR PAHAN	ST	LPM	R	4200/L-6	12/10/1966	15-06-1992	28-12-1998	-	28-12-1998
53	LATHRU ORAM	ST	LPG/ELECT	RIG	4200/L-6	03/02/1966	26/10/1991	21/01/1999	-	21/01/1999
54	Soumen Adhikari	UR	CLI/NGP	NGP	4600/L-7	26/06/1966	27/12/1993	28/01/1999	20/12/2006	28/01/1999
55	Subhendu Malik	UR	CLI/NGP	NGP	4600/L-7	04/10/1966	27/12/1993	28/01/1999	10/06/2010	28/01/1999
56	Ashok Nanaji Mate	SC	CLI/NGP	NGP	4600/L-7	28/05/1966	01/06/1994	28/01/1999	12/06/2010	28/01/1999
57	Sunil Damu Ahir	UR	CLI/DGG	NGP	4600/L-7	02/12/1970	16/05/1994	28/01/1999	23/05/2013	28/01/1999
58	S- V- V- S- Ravikumar	UR	CLI/NGP	NGP	4600/L-7	09/08/1975	16/03/1998	28/01/1999	04/07/2013	28/01/1999
59	A- K- Maity	UR	CLI/NGP	NGP	4600/L-7	09/05/1967	27/12/1993	28/01/1999	11/07/2013	28/01/1999
60	Babrubhan M Pal	UR	CLI/DGG	NGP	4600/L-7	26/04/1966	27/12/1993	28/01/1999	19/11/2021	28/01/1999
61	Dharam Gopal C	UR	CLI/NAB	NGP	4600/L-7	01/12/1969	01/06/1994	11/02/1999	24/11/2021	11/02/1999
62	Pradip Kumar Saha	UR	CLI/G	NGP	4600/L-7	12/12/1967	16/05/1994	15/02/1999	18/05/2017	15/02/1999

**Provisional integrated seniority list in pay RS.6500-10500/-, RS.4600/-, level-7 of ELECTRICAL DEPTT /SECR, (STANDBY LIST)
(ANNEXURE-B)**

S/N	Name(Sri/Smt)	Comm.	Designation	Divn/UNIT	Present Scale/GP	DOB	DOA	DOP 5000-8000 & GP-4200/-	DOP 6500-10500 IN GP-4600/-	DATE OF ELIGIBILITY GRADE OF RUNNING STAFF GP-4200/- EQUATED WITH GP-4600/-
63	Wilson Mathew	UR	CLI/NGP	NGP	4600/L-7	15/03/1970	02/06/1994	16/02/1999	18/05/2017	16/02/1999
64	S.K.KERKETTA	ST	CLI/ELECT	BSP	4600/L-7	08/03/1966	20/05/1992	08-03-1999	20-02-2007	08/03/1999
65	P.G.VARGHESE	UR	LPM	R	4200/L-6	24-02-1970	13-02-1995	16-12-1999	-	16-12-1999
66	SURENDRA KUMAR	SC	SSE/ELS/BIA/R	ELS	5400/L-9	06/09/1964	04/04/1988	04/04/1989	28/12/1999	28/12/1999
67	S.K.PADHI	UR	SSE(D&D)	R	4600/L-7	23/08/1965	10/10/1994	10/10/1995	07/03/2000	07/03/2000
68	P.K.MANGAL	UR	LPP/ML/ELECT	BSP	4200/L-6	06/05/1969	20/12/1991	23/03/2000	-	23/03/2000
69	DHURANDHAR RAM	GEN	LPG/ELECT	BSP	4200/L-6	01/09/1970	20/12/1991	23/03/2000	-	23/03/2000
70	VINAY KUMAR	GEN	LPG/ELECT	BSP	4200/L-6	30/06/1970	21/12/1991	23/03/2000	-	23/03/2000
71	ARJUN KUMAR VERMA	SC	LPM/ML/ELECT	BSP	4200/L-6	30/06/1965	13/05/1992	23/03/2000	-	23/03/2000
72	V.K.PATEL	UR	LPP/ML/ELECT	BSP	4200/L-6	20/04/1969	15/05/1992	23/03/2000	-	23/03/2000
73	BIJAY KUMAR DALAI	UR	LPM/ML/ELECT	BSP	4200/L-6	25/09/1965	20/05/1992	23/03/2000	-	23/03/2000
74	G.B.SAHOO	UR	LPP/ML/ELECT	BSP	4200/L-6	15/05/1966	20/05/1992	23/03/2000	-	23/03/2000
75	D.K.SWAIN	UR	LPM/ML/ELECT	BSP	4200/L-6	21/05/1969	20/05/1992	23/03/2000	-	23/03/2000
76	SHIV POOJAN	SC	LPG/ELECT	SDL	4200/L-6	01/08/1966	05/06/1992	23/03/2000	-	23/03/2000
77	MANGAL SINGH JAGAT	ST	LPM/ML/ELECT	BSP	4200/L-6	10/05/1968	14/09/1993	23/03/2000	-	23/03/2000
78	RAJ KUMAR TANDAN	SC	LPM/ML/ELECT	BSP	4200/L-6	08/10/1964	01/05/1994	23/03/2000	-	23/03/2000
79	T.A.MASE	ST	LPM/ML/ELECT	BSP	4200/L-6	15/06/1965	08/08/1994	23/03/2000	-	23/03/2000
80	D.S.DHURWEY	ST	LPM/ML/ELECT	BSP	4200/L-6	31/01/1971	28/07/1995	23/03/2000	-	23/03/2000
81	JANME JAY BHOI	ST	LPG/ELECT	BRJN	4200/L-6	15/08/1968	18/09/1995	23/03/2000	-	23/03/2000
82	GULAB LOHRA	ST	LPM/ML/ELECT	BSP	4200/L-6	10/11/1973	18/09/1995	23/03/2000	-	23/03/2000
83	K.V. RAMANA RAO	UR	LPM/CIC/ELECT	BSP	4200/L-6	09/02/1963	06/07/1981	11/04/2000	-	11/04/2000
84	RAJESH KUMAR TIWARI	UR	LPP/CIC/ELECT	SDL	4200/L-6	04/04/1968	28/11/1986	11/04/2000	-	11/04/2000
85	V. KRISHNA RAO	UR	LPP/CIC/ELECT	SDL	4200/L-6	06/12/1962	10/12/1986	11/04/2000	-	11/04/2000
86	MAQSOOD KHAN	UR	LPP/CIC/ELECT	BJRI	4200/L-6	26/07/1965	27/09/1987	11/04/2000	-	11/04/2000
87	D.K.GEDAM	ST	LPM/ML/ELECT	BSP	4200/L-6	25/08/1964	18/11/1986	14/06/2000	-	14/06/2000
88	CHINTAMANI MAJHI	ST	SSE	RIG	4600/L-7	26-09-1965	07/01/1991	-	11/07/2000	11/07/2000
89	PARTHA PRATIM SARKAR	UR	SSE	BSP	4600/L-7	02/02/1967	30-09-1991	-	11/07/2000	11/07/2000
90	I.S.RANA	SC	SSE/Con	BSP	4600/L-7	30-06-1969	20-10-1992	-	11/07/2000	11/07/2000
91	S.P.SINGH	UR	SSE/Con	BSP	4600/L-7	03/03/1968	24-10-1992	-	11/07/2000	11/07/2000
92	P.PAL CHOUDHARY	UR	SSE/Con	GRC	4600/L-7	01/11/1964	27-08-1990	-	11/07/2000	11/07/2000
93	V.M.GUPTA	UR	SSE(D&D)	BSP	4600/L-7	29/03/1966	06/07/1994	-	26/07/2000	26/07/2000
94	G.-V.-Dange	UR	SSE/NGP/TPC/NGP	NGP	5400/L-9	26/06/1968	15/10/1992	15/10/1994	25/09/2000	25/09/2000
95	P.K.NETAM	ST	SSE(D&D)	HQ	4600/L-7	10/06/1970	29/11/1999	-	29/11/2000	29/11/2000
96	BIPIN KISHORE TIRKEY	ST	SSE/OP/BSP	BSP	4800/L-8	12/05/1970	07/12/1999	-	07/12/2000	07/12/2000

**SYLLABUS FOR WRITTEN TEST FOR SELECTION FOR FORMATION OF A PANEL OF
AEE/AXEE (GROUP-B) AGAINST 70% VACANCIES**

- 1.0 **Electrical- General Services:**
 - 1.1.0 **Train lighting and air-conditioning**
 - 1.1.1 Design, Construction, Principles of working, Maintenance schedule, POH and Schematic Circuit diagrams of train lighting equipment used in the simplified train lighting system. Details of wiring in coaches and associated safety device in case of fire in trains and the reasons thereof. Problems of train lighting in day-to-day operation.
 - 1.1.2 Principle of working and schematic diagram of TL alternator with Flat as well as V belts and automatic voltage regulators, Lead and batteries, their characteristic on charge and discharge, care and maintenance of batteries, battery charging plants, Sealed maintenance free batteries.
 - 1.1.3 Schematic arrangement for the refrigeration cycle of A.C. coaches and maintenance schedules.
 - 1.1.4 AC coaches with RMPUs and under sling equipments & schematic diagram.
 - 1.1.5 Board out lines of refrigeration and air-condition equipment used for air-conditioning of buildings covering window models package type plants, split type air-conditioners and central plants, planning installation and maintenance of air-condition equipment, refrigerators, water-coolers.
 - 1.2.0 **Energy conservation in General Services**

Energy conservation measures, including non-conventional sources, power factor improvement by use of synchronous motors and capacitor banks.
- 1.30 **Electrical lighting of buildings, yards and water supply arrangement.**
 - 1.3.1 Systems of wiring layouts, regulations governing the electrical equipment of buildings, contract specifications testing of installations, lighting of yards by point lights, flood lights etc. Standard of illumination for various applications and different form of light fittings suitable for special purposes.
 - 1.3.2 Principles of working of various types of pumps in use on the Railways- selection of pumps and pumping installations and maintenance thereof along with their specifications. Assessment of water supply requirements in various Railway installations in terms of way and work manual.
- 1.4.0 **Power House, Sub-stations, HT & LT distribution systems.**
 - 1.4.1 Specification and layout of diesel generator, Principles of working of Diesel Engine, alternator and maintenance thereof, Specific fuel consumption, synchronization and parallel operation.
 - 1.4.2 Sub-Station layout, specifications etc of transformers, switchgear, protective equipment, metering equipment, erection and testing of relays, testing of transformer oil, distilled water and earth resistance, Parallel operation of transformers, Maintenance & operation of sub-stations



- 1.4.3 Laying of underground cables- cable jointing location of faults in cables and equipments used for the fault finding, repairs of faulty cables, testing
- 1.4.4 Earthing arrangements, Neutral earthing, testing earth screen.
- 1.5.0 **Rules, Regulations etc for General Services.**
- 1.5.1 Principle of working safety, maintenance & operation lifts. Types of motors, ratings, temperature rise, types of control & starters protective devices and safety features.
- 1.5.2 Indian Electricity Rules, 1956 and Indian Electricity Act 2003 as applicable to Railway installations, safety precautions to be taken for electrical installations.
- 1.5.3 Duties and qualifications for the electrical Inspector in terms of Indian Electricity Rules, Rules for inspection of electrical installations by the Electrical Inspector.
- 1.5.4 Broad details of AC, Traction, Manual applicable to general services. Safety precautions near 25 KV AC OHE, Modification to LT lines consequent of introduction of 25 KV AC traction.
- 1.5.5 Rules governing transmission line crossing and underground cables across the Railway tracks
- 1.5.6 Electricity tariffs charged by the various Boards and optimization of electricity bill and power factor.
- 1.5.7 Board principles and terms and condition of power supply agreement with the supply Authorities for electrical general services.
- 1.5.8 Procedure to be followed for EIG sanction.
- 1.5.9 Preparation of estimates for minor and major works detailed and working estimates etc layout plans and contract specifications, drawing office procedures.
- 1.5.10 Difference between capital and other stores and method of recoupments.
- 2.0 **Electric Rolling Stock:**
- 2.1.1 AC Locomotives, AC EMUs and AC MEMUs main features, main equipments, general layout and major equipment ratings.
- 2.1.2 Elements of train resistance, tractive force calculation and adhesion, Types of suspension and transmission, power conditioning GTO/IGBT and protective equipment.
- 2.1.3 Maintenance practices adopted for AC locos, EMUs and MEMUs.
- 2.1.4 Air Compressors, vacuum exhausters, auxiliary motors and brake systems employed on electric rolling stock
- 2.1.5 Rheostatic braking
- 2.1.6 Requirements of facilities for IOH shed and POH shops for repairs of locomotives/EMUs/MEMUs.
- 2.1.7 Features for operation of AC electric locomotives/EMUs/MEMUs as single or multiple units.
- 2.1.8 Safety features to be followed in the operation of electric locomotive, EMUs and MEMUs and statistical calculations thereof.
- 2.1.9 Preparation of engine links and driver links, Link working calculation of crew and loco requirement figures.



- 2.1.10 Utilization of locos, traction loco control organization.
- 2.1.11 Rotating machines, rewinding shops practice and organization and various types of insulating materials employed.
- 2.1.12 Ball, roller and suspension bearings, how clearances are ensured/measured.
- 2.1.13 Familiarity with the ACTM and its provisions pertaining to AC electric locos/EMUs/MEMUs and items of safety checks for moving vehicles with respect of loco/EMUs/MEMUs and P way awareness of general values for wheel profiles, accidents, derailments.
- 2.1.14 Knowledge of factors affecting smooth current collection pantograph and factors likely to cause panto entanglements, preventive cause thereof.
- 2.1.15 Ability to perform simple calculations regarding HP, KWH Hrs, Tractive effort intones and torque/speed relationship for AC electric locomotives/EMUs/MEMUs.
- 2.1.16 Yardstick for maintenance sheds, sources for filling vacancies trade tests and effecting promotions against vacancies.

3.0 Electrical Traction Distribution and power supply installation:

- 3.1.1 System of Traction, Planning and execution of Projects- Advantages of different system, Advantages of electric traction over other modes of traction.

3.2.0 Maintenance and Operation of OHE.

- 3.2.1 Principles of OHE layout plans sectioning diagrams.
- 3.2.2 Maintenance schedules for OHE and Tower Wagons as per ACTM.
- 3.2.3 Various types of OHE break-downs and their causes and remedial action.
- 3.2.4 Accident/break-downs normalization procedures.
- 3.2.5 Criterion for usage of various types of foundations, masts/portals, span lengths, dropper schedule, regulated/unregulated OHE, PTFE/sort neutral section/conventional neutral sections.
- 3.2.6 Applications of Indian Electricity Act 2003 and Indian Electricity Rules 1956 as applicable to TRD installations, schedule of dimensions, Code of bonding and earthing for 25 KV AC traction, regulation for electrical crossing of Railway track, rules for movement of ODCs in electrified track, rules/procedures for working by other departments in electrified sections.

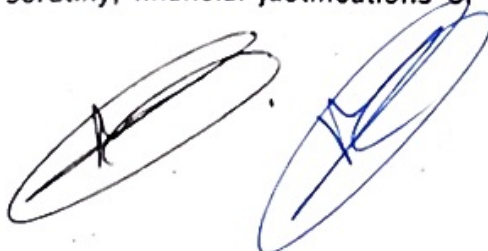
- 3.2.7 2x25 Kv AC OHE system.

3.3.0 Maintenance and operating of PSI system.

- 3.3.1 Various types of switching posts including traction sub-stations, equipment layout therein maintenance/operation procedures for PSI equipments.
- 3.3.2 Relative merits of SF6 and vacuum circuit breakers, interruptors over all type of breakers/interruptors.



- 3.3.3 Capacitor Banks-static shunt and thyristor of switched type their relative merits, maintenance and operation procedures.
- 3.3.4 Type of breakdowns/failures of PSI equipments causes and remedial actions.
- 3.4.0 Remote Control equipments, maintenance and operation.
- 3.4.1 General principles of working of remote control equipments and their maintenance schedules.
- 3.4.2 Merits of SCADA type remote control system over stagger type remote control system.
- 3.4.3 Failure of remote control equipments, causes and remedial action.
- 3.4.4 Maximum demand control- role of TPC and Traction Loco Controllers.
- 3.4.5 Availing direct power supply from NTPC/PGCIL etc., transmission lines.
- 3.5 General topics:
 - 3.5.1 Specific energy consumption, energy conservation measures as applicable for electric tractions.
 - 3.5.2 Tariff for electric traction and various types -their relative merits.
 - 3.5.3 Safety measures to be adopted for working of OHE/PSI installations including procedures for obtaining power and traffic blocks.
 - 3.5.4 Electrical accidents as applicable for traction installations, Reporting of such accidents to EIG.
 - 3.5.5 Communication in electrified section.
- 4.0 Establishment
 - 4.1.1 Recruitment, selection and induction, staff training and development, Staff cadres and channel of promotions in same class or from one class to another, selection Boards, efficiency bars, selection and non-selection posts, trade tests.
 - 4.1.2 Discipline and appeal rules, Railway Servants conduct rules, Termination of service, discharge, dismissal, re-employment rules.
 - 4.1.3 Maintenance of Annual confidential Reports.
 - 4.1.4 Leave, Pass and Traveling Allowance Rules- Preparation of Pay sheets and Master Sheets- Method of payment- Box systems of payment- Dearness, Compensatory, House Rent and other allowances- Overtime, Medical attendance rules, Rent rules.
 - 4.1.5 Departmental Procedure in regard to:
 - i) Payment of Wages Act.
 - ii) Hours of employment regulations- Adjudicator's Award- Duty rosters.
 - iii) Workman's Compensation Act
 - iv) Indian Factory Act.
 - 4.1.6 Manpower Planning, Zero based review and rightsizing, human resources development, motivation and productivity.
 - 4.1.7 Role of manager, managerial skill, decision making- technique and process.
 - 4.1.8 Managing Industrial relations, union & management workers participation in the management.
- 5.0 Finance:
 - 5.1.1 Principles of financial scrutiny, financial justifications of proposals involving



expenditure related to:

- i) Ordinary working expenses
- ii) Works expenditure
- iii) Manufacture
- iv) Stores

5.1.2

Procedure for preparation of Railway Budget in respect of :

- (i) Ordinary working expenses
- (ii) Works expenditure
- (iii) Manufacture
- (iv) Stores

5.1.3

Control over expenditure on works:

- i) Work registers, their maintenance, review and reconciliation with general books.
- ii) Estimates of various types, their certifications by Accounts.
- iii) Tenders- type of tenders, procedure for calling, consideration and acceptance tenders, and association of accounts.
- iv) Progress reports, financial reviews, publicity expenditure, imprest cash.
- v) Rules for grouping works, competency of sanctions.
- vi) Deposit works, Incidence of expenditure of works for other departments.

6.0

Stores and material management:

6.1.1

- i) Legal aspects of purchasing and ethics in buying.
- ii) Material management outlines and essential principles of the purchasing function.
- iii) Procedure for drawl of stock items including disposal of various foils.
- iv) Custody stores
- v) Scrap disposal

6.1.2

- i) Inventory control
- ii) ABC analysis
- iii) Stock & non-stock items, procedure for procurement of non-stock items, PAC items etc.
- iv) Rules for entering into supplying contracts and technical scrutiny of offers.

7.0

Information Management Computers-

Role of computers in management, introduction to computers, personal computer and its uses MIS.

8.0

Rajbhasha

- i) Constitutional provisions regarding official language.
- ii) Official Language Act, 1963
- iii) The official language rules, 1976.
- iv) Official language implementation Committee
- v) Use of bi-lingual software/hardware for bi-scriptural use of computers.

(Ten percent of the total marks allotted for question on official language policy and rules.)

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