

Syllabus for Promotion as JE at ECS MLY against 20% Promotion Quota

1. Conventional EMU & MEMU schedule maintenance
2. 3- Phase EMU & MEMU schedule maintenance
3. Conventional EMU & MEMU equipments pertaining to electrics, Pneumatics, under frame bogie and rotating machines
4. 3- phase EMU & MEMU equipments pertaining to propulsion system, electrics, Pneumatics, under frame bogie and rotating machines
5. Railway service conduct rules, Pass rules, Hours of Employment regulations, Payment of wages Act, Workmen's compensation act
6. Procurement of stores – stocked items and non-stock items-imprest stores, Disposal of unserviceable stores – stock verification.
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EMU & MEMU QUESTION BANK for JE EXAM (TSMD/MLY)

Objective questions

Sl.No	Question				
1.	Rating of MEMU transformer is				
	(a) 1200KVA	(b) 1000KVA	(c) 800 KVA	(d) 1100KVA	B
2.	Voltage rating of EMU Traction Motor is				
	(a) 500 V	(b) 580 V	(c) 535 V	(d) 550 V	C
3.	New wheel diameter of EMU / MEMU Motor Coach/Trailer coach				
	(a) 900 mm	(b) 950 mm	(c) 850 mm	(d) 952 mm	D
4.	Total auxiliary motors in EMU motor coach are				
	(a) 5	(b) 4	(c) 3	(d) 2	A
5.	Total No. of traction motors in a MEMU Motor Coach is				
	(a) 2	(b) 3	(c) 4	(d) 5	C
6.	The Safety device provided in EMU for detecting gassing and the protection of Transformer is:				
	(a) OLP	(b) TTR	(c) BUD	(d) PRV	C
7.	The Safety device fitted in the EMU Transformer for its protection against explosion:				
	(a) PRV	(b) OLP	(c) BUD	(d) TTR	A
8.	The Ampere hour capacity of EMU battery is :				
	(a) 80 Ah	(b) 90 Ah	(c) 100 Ah	(d) 75 Ah	B
9.	In MEMU, the setting of Parking brake governor cut in/cut out is :				
	(a) 6.0/7.0 kg/cm ²	(b) 3.3/4.3 kg/cm ²	(c) 2.6/3.2 kg/cm ²	(d) 4.0/5.0 kg/cm ²	C
10.	In EMU the setting of MCP Governor cut in /cut out is :				
	(a) 5.0/6.0 kg/cm ²	(b) 7.0/8.0 kg/cm ²	(c) 4.5/5.5 kg/cm ²	(d) 6.0/7.0 kg/cm ²	D
11.	In EMU/MEMU one of the following is a part of brake controller :				
	(a) Tripple valve	(b) Equalising discharge valve	(c) Safety valve	(d) Application magnet valve	B
12.	In EMU one of the following is a part of EP unit :				
	(a) Tripple valve	(b) Equalising discharge valve	(c) Puppet valve	(d) Self lapping cylinder	A

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13.	In EMU the setting of equipment governor cut in/cut out is				C
	(a) 4.5/5.5 kg/cm ²	(b) 2.2/3.8 kg/cm ²	(c) 4.2/3.3 kg/cm ²	(d) 4.4/5.2 kg/cm ²	
14.	In EMU the setting of control governor cut in/cut out is				B
	(a) 5.5/4.3 kg/cm ²	(b) 4.2/3.3 kg/cm ²	(c) 3.2/4.8 kg/cm ²	(d) 5.5/6.5 kg/cm ²	
15.	In EMU the BC Pressure for MC is :				B
	(a) 2.0 kg/cm ²	(b) 1.6 kg/cm ²	(c) 3.5 kg/cm ²	(d) 1.5 kg/cm ²	
16.	In MEMU the BC Pressure for TC is :				C
	(a) 2.0 kg/cm ²	(b) 1.6 kg/cm ²	(c) 1.2 kg/cm ²	(d) 1.5 kg/cm ²	
17.	In EMU the MR Pressure is :				C
	(a) 5.0 kg/cm ²	(b) 6.0 kg/cm ²	(c) 7.0 kg/cm ²	(d) 8.0 kg/cm ²	
18.	The type of Traction Motor used in EMU is :				B
	(a) 4001 BX	(b) 4601 BX	(c) 6040 BX	(d) None of the above	
19.	The wheel diameter condemn limit for MC is :				C
	(a) 952 mm	(b) 900 mm	(c) 877 mm	(d) 857 mm	
20.	The wheel diameter condemn limit for TC is :				D
	(a) 952 mm	(b) 900 mm	(c) 877 mm	(d) 857 mm	
21.	The width of EMU coach is :				D
	(a) 3250 mm	(b) 3600 mm	(c) 3650 mm	(d) 3660 mm	
22.	The type of EMU pantograph is ;				B
	(a) AM-10	(b) AM-12	(c) AM-14	(d) None of the above	
23.	The type of strip used in EMU pantograph is ;				A
	(a) Metalised carbon	(b) Carbon	(c) Mild steel	(d) None of the above	
24.	The pantograph strip thickness condemn limit is ;				B
	(a) 2.5 mm	(b) 3.5 mm	(c) 4.5 mm	(d) None of the above	
25.	The control voltage in EMU is ;				

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	(a) 110 V AC	(b) 230 V AC	(c) 110 V DC	(d) 230 V DC	C
26.	The rating of EMU traction motor is :				
	(a) 150 KW	(b) 535 KW	(c) 230 KW	(d) 167 KW	D
27.	The type of cooling of transformer oil is :				
	(a) OFAF	(b) OF	(c) AF	(d) None of the above	A
28.	The voltage of primary winding of EMU transformer is :				
	(a) 25 KV	(b) 266 V	(c) 782 V	(d) None of the above	A
29.	The voltage of Secondary winding of EMU transformer is :				
	(a) 25 KV	(b) 266 V	(c) 782 V	(d) None of the above	C
30.	The voltage of Auxiliary I winding of EMU transformer is :				
	(a) 25 KV	(b) 266 V	(c) 782 V	(d) None of the above	B
31.	The voltage of Auxiliary II winding of EMU transformer is :				
	(a) 141 V	(b) 266 V	(c) 782 V	(d) None of the above	A
32.	The setting of thermostat in EMU transformer is :				
	(a) 75 °C	(b) 85 °C	(c) 65 °C	(d) None of the above	B
33.	The BDV stands for :				
	(a) Break down value	(b) Break down voltage	(c) Break drop voltage	(d) None of the above	B
34.	The BDV for new filtered oil for transformer is :				
	(a) 40 KV	(b) 60 KV	(c) 30 KV	(d) None of the above	A
35.	The capacity of main compressor in EMU is:				
	(a) 900 lpm	(b) 1000 lpm	(c) 500 lpm	(d) None of the above	B
36.	The No of carbon brushes in TM are :				
	(a) 2	(b) 4	(c) 6	(d) 8	D

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37.	The condemning size of TM carbon brush is :				A
	(a) 32 mm	(b) 40 mm	(c) 35 mm	(d) None of the above	
38.	The type of TM suspension in EMU is ;				B
	(a) Fixed	(b) Axle hung nose suspended	(c) Mounting pad	(d) None of the above	
39.	The type of Schaku coupler in EMU is :				A
	(a) Semi-permanent	(b) Permanent suspended	(c) Screw coupling	(d) None of the above	
40.	The location of Air Dryer in EMU is				C
	(a) HT compartment	(b) LT compartment	(c) Rear of MC	(d) None of the above	
41.	The location of ASL in EMU is				A
	(a) HT compartment	(b) LT compartment	(c) Bogie	(d) None of the above	
42.	The function of Aux rectifier is to feed :				C
	(a) Aux I circuit	(b) Battery charger	(c) Main Compressor	(d) None of the above	
43.	The function of DC-DC converter is to feed :				B
	(a) Flasher light	(b) Head light	(c) Tail lamp	(d) None of the above	
44.	The number of batteries available in EMU are :				C
	(a) 5	(b) 8	(c) 10	(d) None of the above	
45.	If Traction motor No 4 is grounded, which of the following relay will act?				C
	a) OL 1&2	(b) OL 3&4	(c) EFRP	(d) EFRA-II	
46.	If any one of the MAIN Rectifier fuse is blown				C
	a) SR will not pickup	(b) ABB will trip	(c) Only indication will come	(d) TLTE	
47.	Auxiliary compressor is a				A
	a) DC motor	(b) Single phase AC motor	(c) 3 phase AC motor	(d) none of these	

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48.	Conservator is part of				B
	a) Traction motor	(b) Transformer	(c) Main compressor	(d) VCB	
49.	MCB's will not trip if				D
	a) AWS on	(b) HL switch on	(c) Flasher switch on	(d) HOBA fault	
50.	LTR relay is provided in				C
	a) Power circuit	(b) Auxiliary I Circuit	(c) Auxiliary II circuit	(d) Control circuit	
51.	In case of earth fault in Emergency light which relay will act				C
	a) EFRP	(b) OLP	(c) EFRA II	(d) RFAR	
52.	KF -1 is a				A
	a) Radiator cooling fan motor	(b) Contactor	(c) Change over Switch	(d) Rectifier Cooling Fan motor	
53.	Function of Main Rectifier is				B
	a) To Convert DC to AC	(b) To Convert AC to DC	(c) To Convert DC to Variable DC	(d) To Convert 3 phase AC to DC	
54.	Total no. of air filters for traction motors in EMU are:				C
	a) 4	(b) 8	(c) 16	(d) 32	
55.	Color of good silica gel in AC conventional EMU is				B
	a) Black	(b) Blue	(c) Pink	(d) White	
56.	VCB will trip for following relay				D
	a) TTR	(b) RFAR	(c) CBAR	(d) BIR	
57.	Which of the following is an Air flow relay				B
	a) ARR	(b) RFR	(c) RFAR	(d) TTR	
58.	When TTR act the following lamp will glow:				B
	a) ABB	(b) UFL	(c) CHBA OFF	(d) MSTWL	
59.	CCI is used for				B
	a) Aux. Compressor	(b) Main Compressor	(c) Oil pump	(d) Traction motors	

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60.	Location of EAS in EMU:				A
	a) Roof	(b) HT room	(c) Cab	(d) LT room	
61.	Fans in EMU are working with				C
	a) 110 V AC	(b) 110 V DC	(c) 141 V AC	(d) 266 V AC	
62.	Location of OL 1 &2 relay is				C
	a) Tap changer	(b) Relay panel	(c) Switch group I	(d) switch group II	
63.	Relay to detect abnormalities in Transformer				C
	a) EFRA II	(b) RFAR	(c) BIR	(d) OL 1 & 2	
64.	Circuit Breaker used in MMTS EMU is				C
	a) ABB	(b) SF-6	(c) VCB	(d) OCB	
65.	Location of SL in EMU is				C
	a) HT Room	(b) LT Room	(c) Choke Tank	(d) Cab	
66.	Pick up Voltage of OVR is				B
	a) 140V	(b) 540V	(c) 230V	(d) 840V	
67.	To reset OL the following switch is to be put off:				B
	a) ABB	(b) Control	(c) EP	(d) Panto Raise	
68.	Safety relays are				D
	a) TTR,CBAR	(b) TTR, RFAR	(c) CBAR, NVR	(d) BIR,OLP	
69.	The input/output voltage of DC-DC converter are				C
	a) 110v/110v	(b) 110v/100v	(c) 110v/24v	(d) 110v/32v	
70.	MCP motor is				
	a) 110v DC motor	(b) 144v AC motor	(c) 266v AC motor	(d) 230v AC motor	A
71.	SR relay is				
	a) EM type	(b) EP type	(c) latching type	(d) electronic type	A
72.	Total no. of notches in EMU				
	a) 11	(b) 22	(c) 20	(d) None of the	b

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				above	
73.	No of jumpers in MMTS EMU				
	a) 5	(b) 4	(c) 10	(d) 8	A
74.	Electrolyte used in a Lead acid battery is				
	a) Concentrated sulphuric acid	(b) Diluted sulphuric acid	(c) Nitric acid	(d) Hydro chloric acid	B
75.	The rating of HRC fuse for control circuit is				
	a) 50A	(b) 32A	(c) 63A	(d) 10A	B
76.	ARR stands for:				
	a) Air Reset Relay	(b) ABB Reset Relay	(c) ABB act Relay	(d) None of the above	B
77.	CBAR stands for:				
	a) Current Balancing Auxiliary Relay	(b) Current Balancing Air Relay	(c) Current Breaking Auxiliary Relay	(d) Current Breaking Air Relay	A
78.	The following is not a safety item				
	a) ACP	(b) Head light	(c) Flasher Light	(d) Spot light	D
79.	Rating of OLP relay is				
	a) 100A	(b) 100V	(c) 160A	(d) 160V	C
80.	When earth fault occurs in Auxiliary compressor the following will trip				
	a) ABB	(b) EFRA II	(c) MCB	(d) EFRP	C
81.	Battery used in EMU is				
	a) Ni-Cd Cell	(b) Lead acid cell	(c) Dry cell	(d) Edison cell	B
82.	Location of PB relay is				
	a) HT Room	(b) LT Room	(c) In relay panel	(d) in rectifier cubic	B
83.	If BP pressure is less than 4 kg/cm.sq, SR will not pick up through which governor				
	a) Aux. Comp governor	(b) Equipment governor	(c) Control Governor	(d) Main compressor Governor	C

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84.	DMH is a part of				B
	a) Break controller	(b) Master controller	(c) Guard brake	(d) BL box	
85.	Silica gel is used				C
	a) To lubricate Bearing of TM	(b) to cool Transformer oil	(c) To absorb moisture	(d) to lubricate servo motor piston	
86.	CBAR will trip only when				B
	a) One bridge fuse blown	(b) Two bridges fuse blown	(c) For both a & b	(d) Rectifier Fan not working	
87.	To operate EAS, which of the following key is required?				B
	a) BL key	(b) Reverser key	(c) BIV key	(d) No key is required	
88.	Location of control governor of EMU is in				C
	a) HT Room	(b) LT Room	(c) Cab	(d) Near to main compressor	
89.	Tap changer contactor auxiliary interlock gap is				C
	a) 2 - 4 mm	(b) 1 - 2 mm	(c) 2.4-3.2 mm	(d) 1.4-2.2 mm	
90.	SR Relay				C
	a) Can be packed only up to shunt power	(b) can be packed only on Emergency	(c) Should not be packed	(d) can be packed up to half power	
91.	Pick up voltage of LTR is				A
	a) 70 V	(b) 100 V	(c) 110 V	(d) 120 V	
92.	Buchholz relay is to protect				C
	a) Transformer	(b) Traction motor	(c) Main Rectifier	(d) MCP	
93.	When AWS is switched ON only notches will come upto				A
	a) Shunt	(b) Half power	(c) Full power	(d) No notches	
94.	Location of PB governor is				D
	a) LT Room	(b) HT Room	(c) Trailer Coach 'C'	(d) Motor coach or Trailer Coach 'D'	
95.	PRV is to protect				

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	a) TM	(b) Transformer	(c) Main compressor	(d) Rectifier	B
96.	BP Pressure in EMU coach				
	a) 5 Kg/cm ²	b) 6 Kg/cm ²	c) 4 Kg/cm ²	d) 7 Kg/cm ²	A
97.	Main Compressor Governor Cut out pressure				
	a) 6 Kg/cm ²	b) 6.3 Kg/cm ²	c) 7 Kg/cm ²	d) 7.5 Kg/cm ²	C
98.	Main Compressor Governor Cut in pressure				
	a) 6 Kg/cm ²	b) 6.3 Kg/cm ²	c) 7 Kg/cm ²	d) 7.5 Kg/cm ²	A
99.	Panto raising time				
	a) 6-10 Sec	b) 8-10 Sec	c) 7-10 Sec	d) 7-12 Sec	A
100.	Which oil is to be added in ELGI Make Auxiliary Compressor.				
	a) SAE 40	b) SAE 150	c) SP 100	d) SP 68	D
101.	Number of Pantograph mounting Insulators				
	a) 4 Nos.	b) 5 Nos.	c) 6 Nos.	d) 8 Nos.	A
102.	DMH Brakes will be apply through				
	a) VEPT Valve	b) Pilot Valve	c) Duplex Check Valve	d) Levelling Valve	B
103.	Wheel to Wheel Distance in mm on EMU Bogies				
	a) 1600 mm	b) 1575 mm	c) 1625 mm	d) 1550 mm	A
104.	Secondary Suspension in MMTS EMU is				
	a) Helical Spring	b) Air Suspension	c) Bolster Frame	d) Dash Pot	B
105.	Ultrasonic Test is carried out to detect				
	a) Oil Leakages	b) Cracks	c) Temperature s	d) None of these	B
106.	New EMU Brake block size in mm				
	a) 46	b) 47	c) 48	d) 49	D
107.	No. of Brake cylinders available in EMU 'C' Coach				
	a) 6	b) 7	c) 8	d) 9	C
108.	Lubricant used in EMU Traction Motor Gear Case :				
	a) Servo Coat 170 T	b) SS 68	c) RR3	d) SP-100	A
109.	Transformer Oil is cooled by				

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	a) Rectifier Motor	b) Radiator	c) Oil Pump Motor	d) MCP	B
110.	Total battery voltage in EMU				
	a) 90 V	b) 80 V	c) 100 V	d) 110 V	D
111.	Parking brake cylinders are fitted on which wheel				
	a) 1-4-5-8	b) 2-3-6-7	c) 2-4-6-8	d) 1-3-5-7	A
112.	ICF Type wiper servomotor wiping angle is				
	a) 45°	b) 60°	c) 75°	d) 90°	B
113.	Additional limiting valve output pressure in TC				
	a) 1.6 Kg/cm ²	b) 3.5 Kg/cm ²	c) 1.2 Kg/cm ²	d) 2.5 Kg/cm ²	C
114.	No. of Positions in brake controller				
	a) 5	b) 6	c) 7	d) 8	A
115.	Which pressure is dropped while applying the guard emergency brake				
	a) MR pressure	b) BP Pressure	c) BC pressure	d) AR Pressure	B
116.	BP created from which valve				
	a) EDV	b) BIV	c) PRV	d) LV	C
117.	Brake cylinder maximum piston stroke (TC) in mm				
	a) 40	b) 50	c) 60	d) 90	A
118.	The parking brake cylinders are available in which MMTS coach :				
	a) Coach 'B'	b) Coach 'C'	c) Coach 'D'	d) a or c	A
119.	The number of brush holders in EMU traction motor are :				
	a) 1	b) 2	c) 3	d) 4	D
120.	Cross sectional area of CHT cable used in EMU/MEMU is				
	a) 90 sq.mm	b) 120 sq.mm	c) 100 sq.mm	d) 140 sq.mm	B
121.	Number of pull rod holes in EMU is				
	a) 4	b) 5	c) 6	d) 3	A
122.	Number of pull rod holes in MEMU is				
	a) 4	b) 5	c) 6	d) 3	B
123.	HRC fuses for protecting the battery is rated at				
	a) 100 A	b) 120A	c) 70 A	d) 80A	D
124.	MCB rating for oil pump is				
	a) 10 A	b) 15 A	c) 5 A	d) None of these	B

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125.	MCB rating for radiator fan				
	a) 10 A	b) 5 A	c) 15 A	d) 10 A	B
126.	MCB rating for rectifier fan				
	a) 10 A	b) 5 A	c) 15 A	d) 10 A	A
127.	Oil pump has a capacity of				
	a) 1 H.P	b) 1.5 HP	c) 0.5 H.P	d) 2 H.P	B
128.	Rectifier fan has a capacity of				
	a) 1 H.P	b) 1.5 HP	c) 0.5 H.P	d) 2 H.P	A
129.	Radiator fan has a capacity of				
	a) 1 H.P	b) 1.5 HP	c) 0.5 H.P	d) 2 H.P	C
130.	How many cylinders are there in Main compressor (LP and HP)?				
	a) 1	b) 2	c) 3	d) 4	C
131.	MCB for protecting LTR is rated at				
	a) 15 A	b) 30 A	c) 5 A	d) 2.5 A	D
132.	MCB protection for baby compressor is rated at				
	a) 10 A	b) 15 A	c) 16 A	d) 32 A	B
133.	Lubricating oil used for Kirloskar make main compressor 3HC-55				
	a) SS-68	b) SAE 120	c) SS-100	d) SAE 150	A
134.	Pick Up voltage of SR is				
	a) 55 V AC	b) 55 V DC	c) 70 V AC	d) 70 V DC	B
135.	CLR drop out current value is				
	a) 500 A	b) 425 A	c) 600 A	d) 400 A	B
136.	Pick Up voltage value of OVR is				
	a) 500 V	b) 425 V	c) 540 V	d) 400 V	C
137.	TTR relay will pickup when interlock of TTS is				
	a) Opened	b) Closed	c) No I/L is used	d) None of these	B
138.	RFAR relay will pick up if RFR Airflow interlock is				
	a) Opened	b) Closed	c) No I/L is used	d) None of these	B
139.	Setting of Limiting valve in EP unit is				
	a) 1.2 kg/sq.cm	b) 1.6 kg/sq.cm	c) 1.8 kg/sq.cm	d) 3.5 kg/sq.cm	D
140.	When the Parking brake is applied ,the pressure in PB cylinder is				
	a) 5 kg/sq.cm	b) 1.6 kg/sq.cm	c) 0 kg/sq.cm	d) 3.5 kg/sq.cm	C
141.	Total length of brake hanger is				
	a) 400 mm	b) 190 mm	c) 590 mm	d) 500 mm	C
142.	MCB rating for Master controller is				

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	a) 10 A	b) 15 A	c) 16 A	d) 32 A	B
143.	When MPT is moved into Shunt Position which wire No gets supply				
	a) 1	b) 2	c) 3	d) 4	A
144.	When MPT is moved into Half Power Position which wire No gets supply				
	a) 1	b) 2	c) 3	d) 4	B
145.	When MPT is moved into Full Power Position which wire No gets supply				
	a) 1	b) 2	c) 3	d) 4	C
146.	When MPT is moved into Weak field which wire No gets supply				
	a) 1	b) 2	c) 3	d) 4	D
147.	Safety valve of Main compressor is set at				
	a) 7 kg/sq.cm	b) 6 kg/sq.cm	c) 8 kg/sq.cm	d) 5 kg/sq.cm	C
148.	Pressure build up time for auxiliary compressor is approx.				
	a) 6 mins	b) 7 mins	c) 12 mins	d) 8 mins	C
149.	Capacity of Equalising reservoir is				
	a) 9 L	b) 10 L	c) 20 L	d) 15 L	A
150.	Capacity of Air suspension reservoir is				
	a) 200 L	b) 150 L	c) 250 L	d) 100 L	B
151.	In Puppet valve, A&B are called _____ ports				
	a) Equalising	b) Limiting	c) Charging	d) Discharging	C
152.	In Puppet valve, C&D are called _____ ports				
	a) Equalising	b) Limiting	c) Charging	d) Discharging	D
153.	Parking Brake reservoir capacity is				
	a) 9 L	b) 10 L	c) 20 L	d) 15 L	A
154.	Horn reservoir capacity is				
	a) 9 L	b) 10 L	c) 20 L	d) 15 L	A
155.	Capacity of Air suspension supplementary reservoir is				
	a) 9 L	b) 10 L	c) 20 L	d) 15 L	C
156.	EP Unit has how many ports				
	a) 4	b) 6	c) 5	d) 3	C
157.	BC pressure in Trailer Coach of MEMU is				
	a) 1.2 kg/sq.cm	b) 1.6 kg/sq.cm	c) 3.2 kg/sq.cm	d) 1.8 kg/sq.cm	D
158.	What is the size of Brake Cylinder used in EMU?				
	a) 210 mm	b) 203 mm	c) 240 mm	d) 520 mm	B
159.	In TC how many MR Reservoirs of 150L are available?				
	a) 1	b) 2	c) 3	d) 4	B
160.	Application Magnet valve gets supply from which wire ?				

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	a) 36	b) 37	c) 38	d) 39	C
161.	Holding Magnet valve gets supply from which wire ?				
	a) 36	b) 37	c) 38	d) 39	B
162.	In emergency brake, which ports are in open position in puppet valve?				
	a) A&B	b) A&C	c) B&D	d) C&D	D
163.	In emergency brake, which ports are in closed position in puppet valve?				
	a) A&B	b) A&C	c) B&D	d) C&D	A
164.	In EP position , which ports are in closed condition in puppet valve?				
	a) A&B	b) A&C	c) B&D	d) C&D	D
165.	Capacity of pantograph reservoir is				
	a) 90 L	b) 100 L	c) 120 L	d) 150 L	A
166.	Dropping reactor will be in power circuit upto which notch?				
	a) 9	b) 10	c) 11	d) 12	B
167.	Forward and Reverse direction of TM is controlled through which wires?				
	a) 1&2	b) 1&3	c) 3&4	d) 5&6	D
168.	Traction Ammeter is connected to which TMs?				
	a) 1&2	b) 1&3	c) 3&4	d) 5&6	B
169.	Length of wearing strip of Pantograph of EMU Conv is				
	a) 1000 mm	b) 1220 mm	c) 1026 mm	d) 1050 mm	C
170.	Minimum pressure required for raising the pantograph is				
	a) 6 kg/sq.cm	b) 4.5 kg/sq.cm	c) 5 kg/sq.cm	d) 7 kg/sq.cm	B
171.	New length of Panto graph strip is				
	a) 12 mm	b) 17 mm	c) 3.5 mm	d) 15 mm	B
172.	Contact force of Pantograph to OHE is				
	a) 10 kg	b) 7 kg	c) 8 kg	d) 12 kg	B
173.	Maximum rated voltage of VCB				
	a) 30 KV	b) 25 KV	c) 35 KV	d) 50 KV	A
174.	Type of Insulation used in CHT Cable is				
	a) PE	b) XLPE	c) PVC	d) Vulcanised Rubber	B
175.	Primary Current in Transformer				
	a) 10 A	b) 20 A	c) 30 A	d) 40 A	D
176.	Total Voltage from Tapped winding is				
	a) 400 V	b) 358 V	c) 341 V	d) 391 V	D
177.	Total Voltage from Untapped winding is				
	a) 400 V	b) 358 V	c) 341 V	d) 391 V	D
178.	RTL and PFD is cooled using				

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	a) Transformer oil	b) Rectifier fan	c) Natural air	d) None of these	C
179.	Minimum pressure required for working of Tapchanger is				
	a) 4 kg/sq.cm	b) 4.5 kg/sq.cm	c) 3.16 kg/sq.cm	d) 5 kg/sq.cm	C
180.	Rated Voltage of Motor Contactors is				
	a) 1300 V	b) 1500 V	c) 560 V	d) 1000 V	C
181.	Which of these relays acting cause VCB to trip?				
	a) TTR	b) CBAR	c) PRV	d) RFAR	C
182.	TSS is kept in TEST position during which instance?				
	a) HT Test	b) LT Test	c) Running	d) None of these	B
183.	The train is said to be running in half power between ____ & ____ notches				
	a) 1&13	b) 3&10	c) 3&12	d) 13&22	C
184.	TL is said to be in service during _____ notches				
	a) Even	b) Odd	c) All	d) None of these	B
185.	Closing of EPIC cock would result in _____ brake not working				
	a) Auto	b) Emergency	c) DMH	d) EP	D
186.	Closing of AIC cock would result in _____ brake not working				
	a) Auto	b) Emergency	c) DMH	d) EP	A
187.	Pressure from baby compressor is used for which operation?				
	a) Brake Application	b) Horns	c) VCB closing	d) None of these	C
188.	Power Rating of Baby Compressor is				
	a) 1 HP	b) 1.5 HP	c) 0.5 HP	d) 2 HP	A
189.	The relative humidity of air at the outlet of Air drier should be approx.				
	a) <45%	b) <10%	c) <25%	d) <35%	D
190.	Reducing valve in Brake controller reduces pressure from __ kg/sq.cm to __ kg/sq.cm				
	a) 6,4	b) 5,3.5	c) 7,5	d) 6,3	C
191.	Self lapping mechanism is used in _____ Brake				
	a) Auto	b) Emergency	c) DMH	d) EP	D
192.	Pressure in top and bottom chambers of Triple Valve is				
	a) 4 kg/sq.cm	b) 3.2 kg/ sq.cm	c) 5 kg/sq.cm	d) 5.5 kg/sq.cm	C
193.	MCB for EP unit is rated at ____				

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	a) 4 A	b) 5 A	c) 10 A	d) 15 A	B
194.	Which cock needs to be closed if we need to isolate braking in one bogie?				
	a) AIC	b) BIC	c) EPIC	d) CIC	B
195.	Parking Brake is found in which coach for units from 21 to 32?				
	a) B Coach	b) C Coach	c) D Coach	d) None of these	A
196.	How many supplementary air suspension cylinder is present in one bogie?				
	a) 1	b) 2	c) 3	d) 4	B
197.	Control governor monitors which pressure?				
	a) MR	b) BP	c) PB	d) None of these	B
198.	Ideal brake power applied on coach is approx ____% of tare weight				
	a) 10	b) 20	c) 30	d) 40	D
199.	Auxiliary rectifier is used to feed				
	a) Baby Compressor	b) Traction Motor	c) Main Compressor	d) None of the above	C
200.	Static battery Charger output is				
	a) 90 V DC	b) 266 V AC	c) 110 V DC	d) 266 V DC	C
201.	Auxiliary Circuit 1 main fuse rating is				
	a) 100 A	b) 50 A	c) 16 A	d) 150 A	B
202.	Malfunctioning of Oil pump would result in acting of which relay?				
	a) NVR	b) LTR	c) RFAR	d) TTR	D
203.	MCB for protecting NVR is rated at				
	a) 5 A	b) 10 A	c) 15 A	d) 30 A	A
204.	Malfunctioning of NVR would result in ____relay not picking up.				
	a) LTR	b) RFAR	c) SR	d) ABR	C
205.	Capacitor rating of Oil Pump is rated at				
	a) 10 mFD	b) 40 mFD	c) 30 mFD	d) 50 mFD	B
206.	Choke tank is cooled by				
	a) Transformer Oil	b) Forced Air	c) Natural Air	d) None of these	A
207.	Rectifier fan should work when ____ relay is energised				
	a) TTR	b) ABR	c) ARR	d) CR	B

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208.	Current rating of Rectifier fan motor is				B
	a) 10 A	b) 4.5 A	c) 7 A	d) 15 A	
209.	Capacitor of Rectifier fan is rated at				A
	a) 40 mFD	b) 10 mFD	c) 30 mFD	d) 50 mFD	
210.	Rectifier fan inlet is located at				C
	a) LT room	b) Under truck	c) HT room	d) Driving Cab	
211.	Current rating of Radiator fan is				D
	a) 10 A	b) 4.5 A	c) 7 A	d) 2.5 A	
212.	Radiator fans not working would result in acting of _____				B
	a) RFAR	b) TTR	c) CBAR	d) SR	
213.	MCB rating of Battery charge is rated at				C
	a) 10 A	b) 25 A	c) 35 A	d) 50 A	
214.	Battery Charger is located at				B
	a) HT room	b) LT room	c) Under truck	d) Driving cab	
215.	Brake Application relay in EMU is located at				B
	a) HT room	b) LT room	c) Under truck	d) Driving cab	
216.	Fully Charged Battery will have specific gravity of				C
	a) 1260	b) 1100	c) 1250	d) 1220	
217.	Contactor used for Auxiliary Compressor is				A
	a) CC2	b) CC1	c) NL1	d) FC1	
218.	The switch for getting battery feed from other MC is				B
	a) CC1	b) CCOS	c) CC2	d) None of these	
219.	MCB for protecting the battery voltmeter is rated at				C
	a) 10 A	b) 5 A	c) 2.5 A	d) 15 A	
220.	Battery Charger failure will result in the glowing of _____ Lamp				D
	a) MSTWL	b) PFD	c) VCB OFF	d) BCFR	
221.	ASR is located at				D
	a) HT Room	b) LT room	c) Inside Compressor	d) Under truck near2 to main rectifie2r	
222.	Controlling relay of Main Compressor is				

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	a) ABR	b) LTR	c) CR	d) ARR	C
223.	CR is _____ type relay				
	a) Latched type	b) Non Latched	c) Mechanically actuated	d) None of these	A
224.	Main Contact gap of CC1 contactor is				
	a) 3.5 – 4.13 mm	b) 6.15 – 7.35 mm	c) 4.33 – 6.23 mm	d) 6.23 mm – 8 mm	B
225.	Synchronous MCB for Main compressor is rated at				
	a) 5 A	b) 10 A	c) 2.5 A	d) 15 A	C
226.	Main Compressor is controlled by wire number				
	a) 10	b) 11	c) 12	d) 13	D
227.	OHE line voltmeter is connected to _____ circuit				
	a) Primary	b) Auxiliary I	c) Auxiliary II	d) None of these	A
228.	Which of the following is a current operated relay?				
	a) RFAR	b) OVR	c) OLP	d) NVR	C
229.	Which of the following is a voltage operated relay?				
	a) LTR	b) OL1 & OL2	c) OLP	d) CLR	A
230.	Which of the following is neither current nor voltage operated relay?				
	a) LTR	b) TTR	c) CR	d) SR	B
231.	Earth fault in Auxiliary II circuit will result in				
	a) EFRP	b) EFRA - II	c) CBAR	d) SR	B
232.	EFRA – II acting would result in tripping of				
	a) Main Compressor	b) Motor contactor	c) VCB	d) SR	C
233.	OLP is connected across				
	a) Primary winding	b) Tapped winding	c) Aux – 1	d) Aux 2	A
234.	The location of OLP/EFRA is at				
	a) HT room	b) Relay panel bottom	c) LT room	d) Driving cab	B
235.	Coil resistance of OLP/EFRA at 20 degree Celsius is				
	a) 100 Ohms	b) 150 Ohms	c) 173 Ohms	d) 196 Ohms	D
236.	OLP/EFRA, if acted should be reset only _____				

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	a) Once	b) twice	c) Thrice	d) Should not be reset	A
237.	OL 5 & OL 6 is located in				
	a) Tap Changer box	b) Switch Group - 1	c) Switch group -2	d) HT room	A
238.	Slow and fast buds for releasing gases in transformer is located at				
	a) LT room	b) Relay panel bottom	c) HT room	d) Driving cab	C
239.	Which of these relays will cause VCB to trip?				
	a) OL 1&2	b) OL 3&4	c) OL 1& 3	d) OL5 & 6	D
240.	EFRP pick up is set at				
	a) 160 V AC	b) 100 V DC	c) 50 V DC	d) 160 V DC	C
241.	Wire which controls the raising the Pantograph is				
	a) 5	b) 6	c) 7	d) 8	C
242.	Wire which controls the lowering of Pantograph is				
	a) 5	b) 6	c) 7	d) 8	D
243.	Which of these should be in open condition in order for SR to pick up?				
	a) Tap Contactors	b) Motor Contactors	c) Negative Contactors	d) None of these	A
244.	Pick Up voltage of SR is rated at				
	a) 110 V DC	b) 110 VAC	c) 55 V DC	d) 55 V AC	C
245.	SR is located at				
	a) HT room	b) Relay panel	c) LT room	d) Driving Cab	B
246.	RFR is located at				
	a) HT room	b) Relay panel	c) LT room	d) Rectifier cubicle	D
247.	If any one of the rectifier branch fuse is blown, then				
	a) VCB will trip	b) Motor Contactors open	c) Indication to driver	d) None of these	C
248.	Resetting of OLP is done through				
	a) Manual reset	b) OL reset switch	c) Cannot reset	d) None of these	B
249.	CLR energisation will result in				
	a) VCB tripping	b) Application of brake	c) Further notches not responding	d) Motor contactors open	C
250.	OVR is located in				
	a) Switch Group 1	b) Relay panel	c) LT room	d) Switch Group 2	D
251.	AOVR is located in				
	a) Switch Group 1	b) Relay panel	c) LT room	d) Switch Group 2	A
252.	Which of the following is a latching type relay?				

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	a) TTR	b) CBAR	c) ABR	d) ARR	C
253.	Governor bypass switches are located in				
	a) HT Room	b) LT room	c) Cab	d) None of these	B
254.	How many pilot lamps are provided in the driver desk indication lamp?				
	a) 16	b) 14	c) 15	d) 20	A
255.	Which of the lamps will glow if TTR is energized?				
	a) UFL	b) PFD	c) VCB off	d) MSTL	A
256.	UFL lamp is located at				
	a) Driver and Guard side outside the MC	b) Near the headlight	c) Near Flasher Light	d) None of these	A
257.	SPM will NOT indicate the following value				
	a) OHE Voltage	b) Speed	c) Distance	d) MR Pressure	D
258.	Pulse generator for speed measurement is attached in wheel no				
	a) 2	b) 1	c) 4	d) 5	B
259.	The number of pulses for one wheel axle rotation is given by				
	a) 180	b) 360	c) 60	d) 120	C
260.	The variation in speed shown in different MCs of one rake is due to incorrect value of				
	a) Wheel diameter	b) Time	c) Memory card issue	d) None of these	A
261.	Air Pressure inside the Air suspension bellow is				
	a) 8 kg/sq.cm	b) 6 kg/sq.cm	c) 5 kg/sq.cm	d) 7 kg/sq.cm	D
262.	The minimum permissible flange thickness is given by				
	a) 29.4 mm	b) 22 mm	c) 18 mm	d) 20 mm	B
263.	Primary Suspension has __ helical springs in One bogie				
	a) 2	b) 4	c) 6	d) 8	D
264.	Vertical load of Bogie is carried by				
	a) Side bearers	b) Centre Pivot	c) Helical springs	d) None of these	A
265.	Horizontal and braking force is carried by				
	a) Side bearers	b) Centre Pivot	c) Helical springs	d) None of these	B
266.	Signal bell is protected with MCB with rating of				
	a) 5 A	b) 10 A	c) 2.5 A	d) None of these	C
267.	Bolster to Bogie frame clearance in MEMU Motor coach is				
	a) 30+/- 6mm	b) 28+/- 6mm	c) 24+/- 5mm	d) None of these	C
268.	Bogie frame to body bolster clearance (min) in MEMU MC is				
	a) 143 mm	b) 100 mm	c) 110 mm	d) None of these	A
269.	Bolster to Bogie frame clearance in EMU Motor coach is				
	a) 40+/- 5mm	b) 28+/- 6mm	c) 24+/- 6mm	d) None of these	A

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270.	Axle crown clearance for MEMU MC is				
	a) 30+/- 6mm	b) 28+/- 6mm	c) 24+/- 6mm	d) None of these	B
271.	Axle crown clearance in MEMU TC is				
	a) 30+/- 6mm	b) 33+/- 6mm	c) 42+/- 6mm	d) None of these	B
272.	Bolster to Bogie frame clearance in MEMU TC is				
	a) 40+/- 5mm	b) 48+/- 5mm	c) 31+/- 5mm	d) None of these	C
273.	Bogie frame to Body Bolster clearance in MEMU TC is				
	a) 143 mm	b) 100 mm	c) 131 mm	d) None of these	C
274.	Axle crown clearance for EMU TC is				
	a) 30+/- 6mm	b) 28+/- 6mm	c) 44+/- 6mm	d) None of these	C
275.	Bolster to Bogie frame clearance of EMU TC is				
	a) 30+/- 5mm	b) 40+/- 5mm	c) 24+/- 5mm	d) None of these	B
276.	Bogie frame to Body Bolster clearance in EMU TC is				
	a) 97 mm	b) 100 mm	c) 131 mm	d) None of these	A
277.	5 th jumper of EMU is maintained for the purpose of				
	a) Fans and Lights	b) Motor Control	c) PAS	d) Control circuit	C
278.	Type of motor used in Auxiliary compressor is				
	a) DC Shunt	b) Squirrel cage	c) Synchronous	d) DC series	D
279.	EMU Motor coach tare weight is approx				
	a) 31.04 tonnes	b) 48.31 mm	c) 63.77 tonnes	d) 56.52 tonnes	D
280.	EMU trailer coach tare weight is approx				
	a) 31.04 tonnes	b) 48.31 mm	c) 63.77 tonnes	d) 56.52 tonnes	A
281.	Maximum Operating speed of EMU/MEMU is				
	a) 100 Km/h	b) 90 km/h	c) 120 km/h	d) 110 km/h	A
282.	Gear Ratio used for speed reduction in EMU/MEMU is				
	a) 20:80	b) 25:100	c) 20:91	d) 23:91	C
283.	Diameter of a new commutator for TM make 4601 BX is				
	a) 310 mm	b) 325.5 mm	c) 320 mm	d) 300 mm	B
284.	Condemn diameter of commutator for TM make 4601 BX is				
	a) 310 mm	b) 325.5 mm	c) 320 mm	d) 305 mm	D
285.	Diameter of a new commutator for TM make C1005 TM is				
	a) 315 mm	b) 335 mm	c) 320 mm	d) 300 mm	A
286.	Condemn diameter of commutator for TM make C1005 TM is				
	a) 315 mm	b) 335 mm	c) 306 mm	d) 310 mm	C
287.	Contact gap of master controller is				
	a) 4.32 – 5.3 mm	b) 2.54- 3.18 mm	c) 1.5mm – 3.34mm	d) 3.43 – 4.32 mm	B

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288.	Maximum voltage across that can be taken from the first notch is				
	a) 90 V	b) 78.2 V	c) 81.5 V	d) 76.2 V	B
289.	Minimum Closing voltage for LTR is				
	a) 110 V DC	b) 100 V DC	c) 85 V DC	d) 55 V DC	D
290.	Working voltage for head light is				
	a) 50 V DC	b) 24 V DC	c) 110 V DC	d) 100 V DC	B
291.	Opening time for AAL make VCB is approx				
	a) <60 ms	b) < 80 ms	c) < 100 ms	d) none of these	A
292.	Closing time for AAL make VCB is approx.				
	a) <60 ms	b) < 80 ms	c) < 100 ms	d) none of these	C
293.	Coach height from rail level for EMU is				
	a) 4120 mm	b) 3658 mm	c) 3894 mm	d) none of these	B
294.	Height from centre line of coupler to floor level for MEMU/EMU is				
	a) 1590 mm	b) 1290 mm	c) 1030 mm	d) none of these	C
295.	Coach vestibules can be found in				
	a) MEMU	b) EMU	c) MEMU&EMU	d) none of these	A
296.	Maximum OHE voltage is				
	a) 25 KV	b) 27.5 KV	c) 30 kV	d) none of these	B
297.	Minimum OHE voltage is				
	a) 25 KV	b) 10KV	c) 17.5 kV	d) none of these	C
298.	Vendor coach in EMU can be found in coach type				
	a) B	b) C	c) D	d) none of these	C
299.	First Class coach in EMU can be found in coach type				
	a) B	b) C	c) D	d) none of these	B
300.	The number of relays present behind driver in relay panel is				
	a) 5	b) 10	c) 8	d) 6	B
301.	Which of the following is governor bypass switch for Equipment Governor?				
	a) GS-1	b) GS-2	c) GS-3	d) GS-4	A
302.	Which of the following is governor bypass switch for Control Governor?				
	a) GS-1	b) GS-2	c) GS-3	d) GS-4	B
303.	Which of the following is governor bypass switch for Main Compressor Governor?				
	a) GS-1	b) GS-2	c) GS-3	d) GS-4	C
304.	Which of the following is governor bypass switch for Baby Compressor Governor?				
	a) GS-1	b) GS-2	c) GS-3	d) GS-4	D
305.	NR1 & NR2 is located at				
	a) Tap Changer Box	b) Switch Group 1	c) Switch	d) LT room	B

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			group2		
306.	PFD is located under truck at				
	a) LP side	b) Guard side	c) Rear of MC	d) Center	A
307.	Transformer oil gauge could be found in				
	a) Under truck	b) LT room	c) HT room	d) Driving cab	C
308.	Silica gel breather is found near to				
	a) Choke tank	b) Transformer tank	c) On roof	d) Conservator tank	D
309.	Which of the following relays CANNOT be reset using control switch				
	a) OL1&2	b) OLP	c) OL5&6	d) EFRA 2	D
310.	Which of the following is a transfer contactor				
	a) T1	b) T8	c) T6	d) T3	B
311.	BIS switch is located at				
	a) HT room	b) Driver desk	c) LT room	d) None of these	C
312.	During LT test TSS is kept in				
	a) Run	b) Test	c) Position doesn't matter	d) None of these	B
313.	If one battery is defective , battery voltmeter would show voltage of				
	a) 70-80 V	b) 60-70 V	c) 80-90V	d) 0 V	D
314.	Which of the following relays should not be packed?				
	a) SR	b) LTR	c) CR	d) RFAR	A
315.	MCB for protection of SSR relay is rated at				
	a) 2.5 A	b) 5 A	c) 10 A	d) None of these	B
316.	Tap Changing Contactors are of _____ type				
	a) Electro Pneumatic	b) Electro magnetic	c) Hydraulic	d) None of these	A
317.	Compressor Contactors are of				
	a) Electro Pneumatic	b) Electro magnetic	c) Hydraulic	d) None of these	B
318.	BP pipe line passes through the _____ side				
	a) LP side	b) Guard Side	c) Centre	d) None of these	A
319.	MR pipeline passes through the _____ side				
	a) LP side	b) Guard Side	c) Centre	d) None of these	B
320.	MR pipeline is having a size of				
	a) 1 inch	b) $\frac{3}{4}$ inch	c) $\frac{1}{2}$ inch	d) None of these	B
321.	BP pipeline is having a size of				
	a) 1 inch	b) $\frac{3}{4}$ inch	c) $\frac{1}{2}$ inch	d) None of these	A
322.	In new coaches (21-32) , pneumatic pipelines are made of				
	a) SS	b) MS	c) CI	d) PVC	A

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323.	Which of the following is not a part of brake controller?				
	a) BIV	b) Puppet Valve	c) Triple valve	d) Equalising discharge valve	C
324.	Which of the following is not part of EP unit?				
	a) BIV	b) Triple Valve	c) Stabilising valve	d) None of these	A
325.	In which of the following positions of master controller DMH brake will NOT work?				
	a) OFF	b) Shunt	c) Half power	d) Full power	A
326.	Air drier works with a voltage of				
	a) 55 VDC	b) 55 V AC	c) 110 V DC	d) 110 V AC	C
327.	The type of bogie used in EMU/MEMU is of _____ type				
	a) Bo-Bo-Bo	b) Co-Co	c) Bo-Bo	d) None of these	C
328.	Type of brake block used in EMU/MEMU is of				
	a) Cast Iron	b) Composite	c) Steel	d) None of these	B
329.	Which relay gets energized in the event of train parting on run?				
	a) RFAR	b) CBAR	c) AFL	d) TTR	C
330.	Oil grade used in main compressor (ELGI make) is				
	a) SS-68	b) SP-150	c) SAE 30	d) None of these	B
331.	One hour rating of TM make 4601 BX is				
	a) 227 kw	b) 187 kW	c) 250 kW	d) 150 KW	B
332.	Which of the following TM is only used in EMU?				
	a) 4601 BX	b) 4303 BY	c) C1005 TM	d) None of these	A
333.	To raise the pantograph TSS switch to be kept in _____ position				
	a) ON	b) OFF	c) RUN	d) TEST	C
334.	The current setting of OLP is				
	a) 0.6 A	b) 0.8A	c) 0.7 A	d) 0.75 A	C
335.	Number of suction & delivery valves available in main compressor of EMU				
	a) 05	b) 07	c) 08	d) 06	D
336.	The continuous rating of HHP traction motor fitted in MEMU Motor coach is				
	a) 210 KW	b) 220 KW	c) 230 KW	d) 200 KW	A
337.	Maximum permissible axle load of EMU Motor coach is				
	a) 19 T	b) 21 T	c) 20 T	d) 22 T	C
338.	Type of Bogies fitted in MEMU Trailer coaches				
	a) HCC	b) Non-HCC	c) DPC	d) Non-DPC	B
339.	The following Make of VCB is fitted in EMU Motor coaches				
	a) Hind	b) Schneider	c) KPC	d) BHEL	B
340.	Number of primary suspension Helical springs fitted in one EMU Motor coach				

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	a) 08	b) 04	c) 16	d) 12	C
341.	The location of battery charger in EMU is				
	a) HT Room	b) LT Room	c) Under frame	d) Drivers cab	B
342.	Number of brake cylinders available in MEMU Trailer coach				
	a) 08	b) 04	c) 16	d) 12	B
343.	Which of the following is NOT a feature of 3phase technology?				
	a) Smooth Acceleration	b)Regenerative Brake	c) Wear resistant drives	d) Increased weight	D
344.	In a 3 Phase EMU rake the leading coach is				
	a) MC	b) TC	c) DTC	d) NDTC	C
345.	The motor coach in a 3 phase EMU unit is found in				
	a) Both end coaches	b) Middle coach	c) All coaches	d) End Coach	B
346.	The conversion method from single phase (25KV) to 3 phase is using				
	a) Rotary Converter	b) Phase converters	c) Digital phase converters	d) Rectifier - Inverter	D
347.	Brake chopper can be found in a 3 phase EMU unit				
	a) Motor Coach	b)Non Driving trailer coach	c) Trailer Coach	d) Driving trailer coach	A
348.	Which of the following equipments is NOT found in motor coach of a 3 phase EMU unit?				
	a) Line voltage transformer	b)Auxilliary Converter	c) Main Compressor	d) Line Filter	C
349.	Type of Pantograph used in 3 Phase EMU is				
	a) AM 12	b)AM - 2881	c) AM 54	d) WBL-22.03	D
350.	During regenerative braking approx ____ % of energy is fed back into the system in a 3 phase EMU unit				
	a) 35	b)45	c) 55	d) 75	A
351.	Wipers in 3phase coaches are _____ operated				
	a) Mechanically	b)Pneumatically	c) Electrically	d) Hydraulic	C
352.	The auxiliary converter is found in a 3 phase EMU unit				
	a) Driving cab	b) HT Room	c) On roof	d) None of these	A
353.	Traction converter cubicle is found in which coach in a 3 phase EMU unit?				
	a) Motor Coach	b)Non Driving trailer coach	c) Trailer Coach	d) Driving trailer coach	A
354.	The cooling of converters is done through in a 3 phase EMU unit				
	a) Water cooled	b) Air cooled	c) Oil cooled	d) None of these	B
355.	The winding material used in Transformer in a 3 phase EMU unit				
	a) Aluminium	b) Copper Alloy	c) Aluminium alloy	d) Copper	D
356.	Which of the following factors is used in the design of nose cone in a 3 phase EMU unit?				
	a) Coefficient of Friction	b) Coefficient of Drag	c) Tare weight	d) Wheel Diameter	B

EMU & MEMU QUESTION BANK for JE EXAM (TSMD/MLY)

357.	Maximum system efficiency is designed at a speed of ____ km/hr for 3Phase EMU				
	a) 40 km/hr	b) 90 km/hr	c) 50 km/hr	d) 70 km/hr	D
358.	DC link voltage in a 3 phase EMU unit is approximately				
	a) 1800 V	b) 800V	c) 2000 V	d) 1000V	A
359.	In a 3 phase EMU unit Switching frequency for line converter is				
	a) 1000 MHz	b) 800 MHz	c) 500 MHz	d) 300 MHz	D
360.	Voltage rating of VCB is rated at				
	a) 80 Kv	b) 20 Kv	c) 25 Kv	d) 30 Kv	D
361.	In a 3 phase EMU unit Switching frequency for motor converter is				
	a) 1000 MHz	b) 800 MHz	c) 500 MHz	d) 300 MHz	A
362.	Lights in 3 phase coaches are working using _____ supply				
	a) 3 phase	b) single phase	c) DC	d) Battery feed	B
363.	in a 3 phase EMU unit , BECU stands for				
	a) Brake Emission Control Unit	b) Battery Emission Control unit	c) Brake electronic control unit	d) Battery explosion control unit	C
364.	in a 3 phase EMU unit , TCMS stands for				
	a) Traction Control Management System	b) Traction cable management System	c) Train cable management System	d) Train Control Management System	D
365.	In a 3 phase EMU unit ,How many GDUs does Line Converter has?				
	a) 4	b) 6	c) 3	d) 8	A
366.	In a 3 phase EMU unit , GDU Stands for				
	a) Gear Drive Unit	b) Gate drive Unit	c) Gear Detection Unit	d) Gate Division Unit	B
367.	in a 3 phase EMU unit , How many GDUs does Motor Contactors have?				
	a) 4	b) 3	c) 6	d) 8	C
368.	System diagnostics is the function of which equipment?				
	a) GDU	b) IGBT	c) BECU	d) TCMS	D
369.	Initial shocks from track is absorbed by				
	a) Bolster	b) Primary Suspension	c) Secondary Suspension	d) Bogie	B
370.	Communication between different components in train is facilitated by				
	a) TCMS	b) GDU	c) BECU	d) IGBT	A
371.	MVB stands for				
	a) Multi Variable Braking	b) Multifunction Vehicle Bus	c) Multiple valued bus	d) None of these	B
372.	The signaling speed of MVB is				
	a) 4 Mbps	b) 3.5 Mbps	c) 1.5 Mbps	d) 2 Mbps	C

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373.	Data intensive services are carried out through				C
	a) MVB	b) BECU	c) IP	d) None of these	
374.	The signaling speed of IP is				C
	a) 400 Mbps	b) 250 Mbps	c) 100 Mbps	d) 200 Mbps	
375.	All diagnostic data passes through				C
	a) MVB	b) BECU	c) IP	d) None of these	
376.	All control and Operational data passes through				A
	a) IP	b) BECU	c) MVB	d) None of these	
377.	Which of these is NOT a component of TCMS?				D
	a) HMI	b) VCU	c) MVB Coupler	d) None of these	
378.	HMI and MCG have _____ Operating System				B
	a) Windows	b) Linux	c) VxWorks	d) Android	
379.	VCU runs on _____ Operating System				C
	a) Windows	b) Linux	c) VxWorks	d) Android	
380.	Which one is having have more priority MVB or IP?				B
	a) Depends on situation	b) MVB	c) IP	d) Equal priority	
381.	Which of the following doesn't influence the design of bogie				C
	a) Max Speed	b) Tare Weight	c) Seat Layout	d) Track guage	
382.	Bull gear is fitted on to axle using				A
	a) Shrink fitting	b) Oil fitting	c) pin and cotter	d) Single cast	
383.	Rating of transformer used in 3 phase EMU is				B
	a) 1000 kVA	b) 1250 kVA	c) 1500 kVA	d) None of these	
384.	_____ braking is the method of giving back energy to the system during braking				D
	a) Auto	b) Economic	c) Electronic	d) Regenerative	
385.	Length of earthing should not exceed				C
	a) 300 mm	b) 100 mm	c) 500 mm	d) 1000 mm	
386.	Cables carrying different phased voltage should always be crossed at an angle of				D
	a) 180 degrees	b) 45 degrees	c) 120 degrees	d) 90 degrees	
387.	Ventilation system in 3 phase coaches is				B
	a) Natural	b) Forced	c) Ventilation is not required	d) None of these	
388.	Theoretical braking force as a % of tare weight of coach is approx _____ for 3 phase MC				B
	a) 30	b) 40	c) 50	d) 60	

EMU & MEMU QUESTION BANK for JE EXAM (TSMD/MLY)

389.	Which of the following is not the function of inverter?				D
	a) Minimise harmonics to line	b) minimize motor harmonics	c) deliver vvvf to traction motor	d) None of these	
390.	Rated Voltage of 3 Phase motor used is				C
	a) 535 V	b) 1500 V	c) 940 V	d) 745 V	
391.	Rated power of 3 phase motor used in 3 phase EMU is				C
	a) 535 kW	b) 150 kW	c) 268 kW	d) 745 kW	
392.	How many outputs are there from auxiliary control unit?				C
	a) 1	b) 2	c) 3	d) 4	
393.	Which of the following is NOT an output from ACU?				B
	a) 3 phase 415 V	b) Single Phase 266 V	c) Single Phase 110 V	d) 110 V DC	
394.	ACU is located in				A
	a) HT room	b) Drivers Cab	c) On roof	d) Near Traction Motor	
395.	Power for Main Compressor in 3 phase EMU is supplied by				C
	a) TCMS	b) TCU	c) ACU	d) None of these	
396.	Main Compressor in 3 phase EMU works under				A
	a) 3 phase 415 V	b) Single Phase 266 V	c) Single Phase 110 V	d) 110 V DC	
397.	Proportional reduction of electronic brake when air brake is increased is termed as				C
	a) Brake Rigging	b) Brake mixing	c) Brake blending	d) None of these	
398.	In 3- Phase EMU the battery box is located in				B
	a) MC	b) DTC	c) TC	d) None	
399.	CCU in a 3- Phase EMU is located in				A
	a) DTC	b) MC	c) NDTC	d) TC	
400.	RDM in a 3- Phase EMU stands for				C
	a) Random drive mode	b) Roller drive mode	c) Rescue drive mode	d) Rapid drive mode	
401.	ADD in a 3- Phase EMU stands for				C
	a) Auto drive device	b) Auto door device	c) Auto drop device	d) Auto dent device	
402.	ORD in a 3- Phase EMU stands for				D
	a) Over rail	b) Over road	c) Over ring	d) Over reach detection	

EMU & MEMU QUESTION BANK for JE EXAM (TSMD/MLY)

	detection	detection	detection		
403.	The Official Language Act was passed in the year				
	a)1964	b)1963	c)1965	d)1962	B
404.	The Constituent Assembly of India had adopted in Devanagari Script as the Official Language of the Union on				
	a)14 th Sept 1949	b)14 th Sept 1950	c) 15 th Sept 1949	d) 15 th Sept 1950	A
405.	Non-Hindi speaking states comes under which region				
	a) A	b) C	c) B	d) D	B
406.	Who is responsible for implementing Hindi in government offices				
	a) Head of the office	b) Employees	c) Clerks	d) Stenos	A
407.	How many members are in parliamentary Committee of Official Language				
	a) 25	b) 20	c) 30	d) 35	C
408.	Govt. servant write notes etc. in Hindi as per which rule of OL Rules 1976				
	a) Rule No.8	b) Rule No. 7	c) Rule No. 6	d) Rule No. 5	A
409.	How many rules are there in OL Rules 1976				
	a) 11	b) 13	c) 12	d) 10	C
410.	What are provision of OL Act, 1963 that are not applicable to Jammu and Kashmir				
	a) 6&7	b) 7&8	c) 6&8	d) 7&9	A

ESTABLISHMENT, STORES & GENERAL QUESTIONS

A) Objective :

- 1 The full form of PCEE is Principal Chief Electrical Engineer
- 2) The full form of CESE is Chief Electrical Service Engineer
- 3) In computer terminology, LAN stands for Local area network.
- 4) I.R.S stands for Indian Railway standard.
- 5) On passing of which examination conducted by the Hindi Training Scheme, Personal pay will be given Pragma.
- 6) Metal Token pass issued to Officers.
- 7) Maternity leave can be granted for a maximum period of 180 Days.
- 8)Maximum LHAP that can be granted at one time 24 Months.
- 9) RDSO stands for Research, Design and Standards Organisation
- 10) RDSO located at Lucknow.
- 11) An employee can be deemed suspended, if he is detained in custody for more than 48 hrs reviewed

EMU & MEMU QUESTION BANK for JE EXAM (TSMD/MLY)

- 12) Railway Board located at New Delhi
- 13) Two minor children may be granted child care leave for a 02 Years
- 14) Rejected saleable scrap should be sent to Scrap Depot, Lallaguda.
- 15) Dismissal is a more serious punishment.
- 16) PHOD stands for Principle Head of the department.
- 17) PHOD of the Mechanical Department PCME.
- 18) During Hospital leave full salary is granted for a period of 120 days.
- 19) During Special Disability leave full salary is granted for a period of 120 days.
- 20) Decode COFMOW Central Organisation for Modernization of Workshops.
- 21) Compulsory retirement is a Major penalty.
- 22) ISO stands for International standards organization .
- 23) EMS stands for Environmental Management system.
- 24) Paternity leave can be granted for a maximum period of 15 days.
- 25) Periodicity for checking the fire extinguisher 3 months.
- 26) The term CCA stands for city compensatory allowance.
- 27) The leave sanctioning authority may refuse or revoke of any kind of leave.
- 28) LAP can be accumulated up to maxim of 300 days.
- 29) In computer terminology, ID address is computer address
- 30) In computer terminology, IP stands for Internet protocol
- 31) In computer terminology, ORACLE is a Database.
- 32) Hospital leave can be granted for a maximum period of 28 months.
- 33) In computer terminology, RAM stands for Random access memory .
- 34) IRMEE full form is Indian railway institute for mechanical engineers .
- 35) How many languages are recognized by the eighth schedule 21.
- 36) In computer terminology, ISP is a service provider.
- 37) In computer terminology, MB stands for mega bytes.
- 38) In computer terminology, NTFS is a file system.
- 39) In computer terminology, One kilo byte is equal to 1024 bites.
- 40) In computer terminology, AGP stands for Advanced graphics port.
- 41) An letters of a series of words is called Acronym.
- 42) In computer is a communication device with programs
- 43) Censure is a minor punishment
- 44) House rent allowance for X classified cities is 27%
- 45) House rent allowance for Y classified cities is 18%
- 46) House rent allowance for Z classified cities is 9%
- 47) CAMTECH located at Gwalior
- 48) With holding of the Privilege or Privilege ticket order or both is a Minor punishment
- 49) In Computer terminology, RED HAT is related to LINUX
- 50) Reduction to lower stage in time scale of pay by one stage for a period exceeding three year is a major

3 PHASE -EMU BIT BANK

1. In 3 phase EMU, One basic unit consists of ____ D _____
- a) MC,TC,TC b) MC,TC,TC,TC c) DTC,NDTC,MC d) DTC/NDTC,MC,TC

EMU & MEMU QUESTION BANK for JE EXAM (TSMD/MLY)

2. In 3 phase EMU, holding brake pressure is ____ C ____ kg/cm²
a) 1.2 kg/cm² b) 1.6 kg/cm² c) 0.8 kg/cm² d) 1.8 kg/cm²
3. In 3 phase EMU, TM output current ____ A ____ Amps, voltage is ____ A ____ volts.
a) 175A,1171V b) 1171A,175V c) 1100A,750V d) 1300A,750V
4. In 3 phase EMU, flasher light, tail lamp, cab emergency lights will get supply from ____ B ____
a) BN (battery normal) b) BD (battery direct) c) CHBA d) 1 phase AC
5. In 3 phase EMU, if any one bogie EP brake isolated, the V max will reduce to ____ D ____ kmph.
a) 60 kmph b) 15 kmph c) 101 kmph d) 105 kmph.
6. In 3 phase EMU, if ORD (over reaching detector) acts ____ A ____ happens.
a) All pantos will lower b) All MC VCBs will open. c) Emergency brakes will apply d) Only concern MC panto lower.
7. In 3 phase EMU, parking brakes are provided in ____ A ____ coach.
a) DTC/NDTC. b) MC c) TC. d) In all coaches.
8. In 3 phase EMU, if any one coach air suspension failure speed will reduce to ____ B ____ kmph.
a) 101 b) 60 c) 105 d) 15
9. In 3 phase EMU, cross connection of BP and MR pipes lines provided between ____ D ____
a) DTC and MC b) MC and TC. c) Two TCs d) TC and NTDC.
10. In 3 phase EMU; individual basic unit can be isolated by ____ B ____ and ____ B _____.
a) DDU, Battery supply switch. b) DDU, BASIC UNIT switch in DTC c) CCU, BASIC UNIT switch in DTC d) CCU, Battery supply switch.
11. In 3 phase EMU, location of auxiliary compressor (APC) ____ C _____.
a) In DTC under truck. b) In MC under shunting desk. c) In MC in HT compartment. d) In DTC under guard desk.
12. In 3 phase EMU, location of battery box under ____ A _____.
a) Under DTC/NDTC b) Under MC c) Under TC. d) In HT compartment in MC.
13. In 3 phase EMU, location of transformer oil pump ____ B _____.
a) Under DTC/NDTC b) Under MC near TFP tank. c) Under TC. d) In HT compartment in MC.
14. In 3 phase EMU, air suspension Sensors available in ____ B _____.
a) DTC/NDTC,MC b) In all coaches. c) In MC only. d) In DTC/NDTC only.

3 PHASE -MEMU BIT BANK

EMU & MEMU QUESTION BANK for JE EXAM (TSMD/MLY)

1. In 3 phase MEMU, One basic unit consists of _____ B
a) MC,TC,TC b) DMC,TC,TC,TC c) DTC,NDTC,MC d) DTC/NDTC,MC,TC
2. In 3 phase MEMU, to maintain constant speed method will be used. _____ B
a) RDM mode. b) CRUISE control. c) Special RDM. d) Failure mode.
3. In 3 phase MEMU, holding brake pressure is kg/cm² _____ C
a) 1.2 kg/cm² b) 1.6 kg/cm² c) 0.8 kg/cm² d) 1.8 kg/cm²
4. In 3 phase MEMU, horsepower a traction motor is _____ A _____ hp.
a) 360 b) 458 c) 460 d) 338
5. In 3 phase MEMU, TM output current is _____ A _____ amps. and TM voltage max. _____ A _____.
a) 175A,1171V b) 1171A,175V c) 1100A,750V d) 1300A,750V
6. In 3 phase MEMU, auxiliary motors will get volts supply. _____ C
a) 266 single phase AC b) 141 single phase AC c) 415 three phase AC d) DC.
7. In 3 phase MEMU, if any one coach EP brake isolated, the V max will reduce to kmph _____ C.
a) 96 kmph b) 15 kmph c) 92 kmph d) 84 kmph.
8. In 3 phase MEMU, if ADD(auto dropping device) acts happens _____ B.
a) All MC VCBs will open. b) All pantos will lower. c) Emergency brakes will apply d) Only concern MC panto lower.
9. In 3 phase MEMU, the DC link voltage volts. _____ A
a) 1800V b) 1200V c) 800V d) 415V
10. In 3 phase MEMU, parking brakes are provided in coach. _____ A
a) DMC. b) LAST TC c) TC-1 d) In all coaches.
11. In 3 phase MEMU, maximum no 3 phase auxiliary motors provided in one basic unit are _____ D
a) 19 or 21 b) 07 or 09 c) 17 or 19 d) 05 or 07
12. In 3 phase MEMU, if any one coach air suspension failure speed will reduce to kmph _____ B.
a) 101 b) 60 c) 105 d) 15
13. In 3 phase MEMU, air suspension Sensors available in _____ B.
a) DTC/NDTC,MC b) In all coaches. c) In MC only. d) In DTC/NDTC only.
14. In 3-Phase MEMU, LTC fitted in _____ D
a) TC b) DTC c) MC d) DMC
15. In 3- Phase MEMU capacity of main compressor is _____ B

EMU & MEMU QUESTION BANK for JE EXAM (TSMD/MLY)

- a) 1000 LPM b) 1200 LPM c) 1100 LPM d) 1150 LPM
16. In 3- Phase MEMU Main compressor is fitted in _____ D
a) DTC b) MC c) TC d) DMC
17. In 3- Phase MEMU Capacity of Transformer is _____ A
a) 1250 KVA b) 1150 KVA c) 1200 KVA d) 1100 KVA
18. In 3- Phase MEMU Maximum speed allowed by RDSO _____ B
a) 105 b) 100 c) 95 d) 90
19. The Capacity of Oil pump in 3- Phase MEMU is _____ A
a) 3 HP b) 2 HP c) 1 HP d) 5 HP
20. The batteries are provided in 3- Phase MEMU _____ D
a) MC b) TC c) DTC d) DMC

Official Language (Rajbhasha)

Question Bank on Official Language Policy of the union for Departmental Examination

1. What is the official language of the India? d
a) Telugu b) Hindi c) Marathi d) Hindi in Devnagari Script
2. In which article of the constitution of India Hindi has been declared as Official Language? c
a) Article 120 b) Article 210 c) Article 343 d) 3Article 351
3. As per the provisions of the Constitution of India Official Language Hindi shall be written in which script? d
a) Brahmi Script b) Sanskrit Script c) Roman Script d) Devnagari Script
4. Hindi Day is celebrated in India on every year?d
a) 10th January b) 26th January c) 15th August d) 14th September
5. Why Hindi Day is celebrated in India on 14th September?a
a) Constituent Assembly of India had adopted Hindi as Official Language of India on that day.
b) Ministry of Home Affairs, Department of Official Language had ordered to do so.
c) Railway Board had ordered to do so d) None of the above
6. In which article of the Constitution of India envisages setting up of Official Language Commissions?b
a) Article 343 b) Article 344 c) Article 345 d) Article 346
7. If a state does not choose Official Language for itself from the languages spoken in the state what language will be its Official Language?c
a) All the languages spoken in the state b) Hindi Language

EMU & MEMU QUESTION BANK for JE EXAM (TSMD/MLY)

c) English Language d) None of the above

8. In which article of the constitution of India the duty to promote the spread of the Hindi language assigned to the Union of India?d

a) Article 120 b) Article 210 c) Article 343 d) Article 351

9. Which of the following languages not included in the VIII Schedule of the Constitution of India?a

a) Chhattisgarhi b) Maithili c) Dogri d) Bodo

10. Who was the Chairman of the 2nd Official Language Commission?d

a) Lal Bahadur Shastri b) Guljarilal Nanda c) Smt. Indira Gandhi d) None of the above

11. Union of India is classified into ----- Regions under Official Language Rules? c

a) A & B Regions a) C & D Regions c) A, B & C Regions d) None of these

12. According to official language rules, under which region Andaman and Nicobar islands come?a

a) Region 'A' b) Region 'B' c) Region 'C' d) None of these

13. According to official language rules, which is the only Union territory classified under region 'B'?a

a) Union territory of Chandigarh b) Union territory of Daman & Diu
c) Pondichery d) None of these

14. What is the official language of Arunachal Pradesh?b

a) Mizo b) English c) Hindi d) None of these

15. At present how many languages are enlisted in the Eighth schedule of the constitution?c

a) 20 b) 21 c) 22 d) 23

16. The state of Jarkhand comes under which Region?a

a) Region 'A' b) Region 'B' c) Region 'C' d) None of these

17. What is the scheme implemented by Railway Board for doing work in Hindi?a

a) Rajbhasha individual cash award scheme b) Rajbhasha group cash award scheme
c) Rajbhasha Samman award scheme d) None of these

18. How many Hindi courses are prescribed for central government employees?d

a) One b) Two c) Three d) Four

19. Which is the elementary Hindi course prescribed for central government employees?d

a) Praveen b) Pragya c) Parangat d) Prabodh

20. What are the Hindi courses prescribed for central government employees?d

a) Prabodh & Praveen b) Praveen & Pragya

EMU & MEMU QUESTION BANK for JE EXAM (TSMD/MLY)

c) Praveen, Pragya & Parangat

d) Prabodh, Praveen, Pragya and Parangat

21. Which is the final Hindi course prescribed for Clerical Cadre Employees Of Central Government?

a) Praveen

b) Pragya

c) Parangat

d) Prabodh

22. How many times the regular Hindi exams are conducted in a year?

a) One Time

b) Two Times

c) Three Times

d) Four Times