Model Curriculum

Senior Lineman-Distribution

SECTOR: **POWER**

SUB-SECTOR: **DISTRIBUTION**

OCCUPATION: **LINEMAN**

REF ID: **PSS/Q 0103**

NSQF LEVEL: **5**

Certificate

COMPLIANCE TO QUALIFICATION PACK- NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

POWER SECTOR SKILL COUNCIL

for

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: **'Senior Lineman Distribution'** QP No. **PSS/ Q0103, NSQF Level 5**

Date of Issuance : June 30th 2017
Valid Upto : June 30th 2021

*Valid up to the next review date of the Qualification Pack or the 'Valid up to' date mentioned above (whichever is earlier)

Authorised Signatory
(Power Sector Skill Council)

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SENIOR LINEMAN-DISTRIBUTION

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "Senior Lineman-Distribution", in the "Power" Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Senior Lineman-Distribution		
Qualification Pack Name & Reference ID. ID	Senior Lineman-Distribution PSS/Q 0103		
Version No.	1.0	**Version Update Date**	30-06-2021
Pre-requisites to Training	8th, Electrical - 6 months, preferably ITI		
Training Outcomes	**After completing this programme, participants will be able to:** • **Gain Familiarity with Power distribution system and basics:** overview especially Distribution Sector. Understand basics of electricity terms, understanding of various types of energy meter etc. • **Able to Inspect Power Distribution Substation, Lines and Components:** This unit covers the competencies required by senior technicians for inspection of Power Distribution Substation, Lines and Components. This includes patrolling and visual, sensory and instrument based testing and evaluation, handling of tools and equipment and carrying out necessary tasks in a safe, efficient and effective manner. This will also include making recommendations for preventive and corrective maintenance as well. • **Able to Repair and maintain Sub-station, Power Distribution Lines and components:** This unit covers the competencies required by technicians for repair and maintenance for Power Distribution Lines and components. This includes handling of tools and equipment for installation and maintenance and carrying out necessary repair and maintenance tasks in a safe, efficient and effective manner. This will also include preventive and corrective maintenance of overhead and underground lines and cables. • **Able to Operate and maintain 11/0.433 KV Distribution Substation:** This unit covers the competencies required technicians to erect and conduct maintenance for an 11/0.433 KV Distribution Substation. This includes working with the crew to install the Substation transformer, handling of tools and equipment for installation and maintenance and carrying out necessary tasks in a safe, efficient and effective manner.		

	• **Able to supervise work and crew in power distribution installation and maintenance work:** This unit covers the competencies required by senior linemen for supervision of crew including linemen and technical helpers for carrying out work for installation, maintenance and repair of Power Distribution Substation, Lines and Components. • **Use basic health and safety practices for power related work:** includes procedure & practices to follow to maintain healthy, safe & secure work environment covering safety of self, others, assets, and the environment • **Work Effectively with others**: covering basic etiquette and competencies to demonstrate in their behaviour and interaction with others at workplace

This course encompasses 6 out of 6 National Occupational Standards (NOS) of "Senior Lineman- Power Distribution" Qualification Pack issued by "Power Sector Skill Council".

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	**Introduction** **Theory Duration** (hh:mm) 04:00 **Practical Duration** (hh:mm) 00:00 **Corresponding NOS Code** PSS/N0109	• Understand Power sector scenario including generation, transmission, and distribution scenario of India. • Understand Functions of Power Distribution Companies • Understand Elements of power systems, transmission, distribution and generations. • Familiarization with distribution network from substation to end consumer	
2	**Organizational context** **Theory Duration** (hh:mm) 04:00 **Practical Duration** (hh:mm) 00:00 **Corresponding NOS Code** PSS/N0109	• Understand Organization structure and reporting levels • Understand Duties and responsibilities of Assistant Electricity Meter Reader, Billing and cash collector and their career progression • Understand Relevant Legislation, Electricity act 2003, CERC,SERC • Understand CEA guidelines	
3	**Basics Of Electricity** **Theory Duration** (hh:mm) 04:00 **Practical Duration** (hh:mm) 04:00 **Corresponding NOS Code** PSS/N0109	• Understand Basic fundamentals of Electricals • Explaining the basic key concepts of Voltage, Current, Capacitance, Resistance, KVA, KWh. • Understand Circuit connections, voltage and current relationship in star & delta configuration3 phase and 1 phase supply • Familiarity with Energy parameters • Understand types of energy meter and metering techniques	Voltmeter, Ammeter, Wattmeter, basic components, Energy Meter (single phase and three phase) etc.
4	**Inspection of Power Distribution Substation, Lines and Components** **Theory Duration** (hh:mm) 24:00 **Practical Duration** (hh:mm) 64:00 **Corresponding NOS Code** PSS/N0109	• Analyze the faults in substation and distribution lines • Understand about the underground distribution system apparatus • Examine the importance of inspecting overhead lines • Know about the circumstances for ad hoc inspection • Review the maintenance of cable trench co-existing with underground utilities	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		• Identify the need of periodic patrolling of overhead lines at ground level • Prepare line patrol log sheet • Study schedule of periodical routine inspection of lines • Compare the advantages and disadvantages of overhead line system over underground cable system	
5	**Repair and Maintenance of Power Distribution Lines** **Theory Duration** (hh:mm) 24:00 **Practical Duration** (hh:mm) 64:00 **Corresponding NOS Code** PSS/N0105	• Identify basics of electricity. • Recall the common electricity terminology. • Organise and explain the various elements of the power system. • Monitor the use of various materials and accessories used in power distribution. • Distinguish the tools used in maintenance activities. • Test and analyse various types of circuits.	
6	**Operation and Maintenance of 11/0.433 kV Distribution Substation** **Theory Duration** (hh:mm) 24:00 **Practical Duration** (hh:mm) 40:00 Corresponding NOS Code PSS/N0107	• Analyse the working of different components of the distribution sub-station. • Plan an activity illustrating the importance of sub-station protection equipment. • Evaluate the importance of sub-station protection equipment. • Provide the measures for sub-station construction. • Monitor the distribution transformer maintenance activities. • Explain the precautions for each part of the transformer. • Illustrate the causes of failure of transformer with a flowchart. • Construct a pictorial analysis of types of cable joints. • Provide examples of aerial bundled cables. • Map the advantages and disadvantages of aerial bundled cables.	
7	**Supervise Work and Crew in Power Distribution Installation and Maintenance Work**	• Interpret the importance of reporting structure • Explain the necessity of recording incidents	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Theory Duration (hh:mm) 16:00 **Practical Duration** (hh:mm) 22:00 **Corresponding NOS Code** PSS/N0110	• Learn to deal with complaints and grievances • Discuss the significance of reporting a problem in time • Understand the concept of productivity • Describe the components of performance development • Examine the value of recording performance	
8	**Use of basic Health & Safety practices at the work place** **Theory Duration** (hh:mm) 12:00 **Practical Duration** (hh:mm) 20:00 **Corresponding NOS Code** PSS/N 2001	• To understand basic health and safety practices covering CEA safety regulations 2010, issue of permit to work etc. • To study uses of PPE equipment's during at work site e.g. safety helmet, belt, shoes, protective glasses, earth rod, etc. • Retrieve and point out documentation that refers to safety, health policy and standard • Information to relevant authority for any abnormal situation/ behaviour of any equipment's • Good housekeeping practises and disposal of waste • Identify common hazard , Storage of flammable materials and oils safely • Possible causes of risk or accident • Safe working practices when working with tools and machines • Electrical safe working procedures such as Tag out, Lockout, Permit to work • Recognize any abnormalities in system installed , alarms, noticing parameters • Fire safety, causes and precautionary activities. Use of appropriate fire extinguishers on different types of fires • Demonstrate rescue techniques applied during fire hazard, correct method to move injured people during emergency • Various types of safety signs and what they mean • Lift, carry and transport heavy	Helmet, Gloves, rubber mat, ladder, neon tester, Personal Protective Equipment

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		objects, and tools, safely, using correct procedures from storage to workplace and vice versa • Administer appropriate first aid to victims , bandaging heart attack, CPR, etc. • Demonstrate how to free a person from electrocution • Respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments • Inform relevant authority about any abnormal situation • Complete written accident report or dictate a report, send report to concern person responsible	
9	**Work effectively with other** **Theory Duration** (hh:mm) 08:00 **Practical Duration** (hh:mm) 16:00 **Corresponding NOS Code** PSS/N 1336	• Working effectively in a team. • Demonstrate good interpersonal relation, discipline behaviour, developing a positive attitude and building self-confidence. • Receiving information and instruction from supervisor and fellow workers, pass on information • Assist others to maximize effectiveness • Problem escalation • Demonstrate responsible, disciplined behavior's at workplace • Display appropriate communication etiquette while working • Communication And Writing Skills and their importance • Basic Computer application	
	Total Duration **Theory Duration** **120:00** **Practical Duration** **230:00**	**Unique Equipment Required:** Transformer oil test kit, Relay test kit. Different types of meter, Thermo vision Camera, first aid kit	

Grand Total Course Duration: **350Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by ***POWER SECTOR SKILL COUNCIL)***

Trainer Prerequisites for Job role: "Senior Lineman-Distribution" mapped to Qualification Pack: "PSSC/Q 0103, v1.0"

Sr. No.	Area	Details
1	**Description**	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack "PSS/Q 0103
2	**Personal Attributes**	Aptitude for conducting training, with relevant work experience. So, that competent candidate is produced at end of the training who are employable. Strong communication skills, interpersonal skills, ability to work as part of a team, a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	**Minimum Educational Qualifications**	ITI in Electrical trade ; Preferably B.Tech(Electrical) or 3 year Diploma in Electrical Engineering
4a	**Domain Certification**	Certified for Job Role: "Senior Lineman-Distribution" mapped to QP: "PSSC/Q 0103 v1.0"., Minimum accepted score as per PSSC guidelines- 80% for Trainer and 90% for Master Trainer
4b	**Platform Certification**	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q0102". Minimum accepted score as per PSSC guidelines – 80% for Trainer and 90% for Master Trainer.
5	**Experience**	Engineer B.Tech. (Electrical) with at least 1-year relevant experience in power distribution either in the Power Distribution utility or with the turnkey /EPC contractors of the power distribution companies carrying out the work of erection of power distribution lines and sub stations etc. Diploma in Electrical Engineering with at least 2-3 years' relevant experience in power distribution either in the Power Distribution utility or with the turnkey /EPC contractors of the power distribution companies carrying out the work of erection of power distribution lines and sub stations etc. ITI Electrician with at least five-year relevant experience in power distribution either in the Power Distribution utility or with the turnkey /EPC contractors of the power distribution companies carrying out the work of erection of power distribution lines and sub stations etc.

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Senior Lineman-Distribution
Qualification Pack	PSS/Q 0103, v1.0
Sector Skill Council	Power

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.

2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.

3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.

4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).

5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.

6. To pass the Qualification Pack , every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.

7. In case of *unsuccessful completion*, the trainee may seek reassessment on the Qualification Pack.

				Mark Allocation	
		Total Mark (600)	Out of	Theory	Skills Practical
1. PSS/ N 0109: Inspection of Power Distribution Substation, Lines and Components	PC1. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines	**100**	3	1	2
	PC2. adhere to procedures or systems in place for health and safety, personal protective equipment (PPE) and other relevant safety regulations for electrical and related operations		3	1	2
	PC3. work following laid down procedures and instructions		2	1	1
	PC4. ensure that all tools, equipment, etc. are in a safe and usable condition and are kept at secured location		1	0	1
	PC5. ensure work area is clean and safe from hazards before and after the job is completed		1	0	1
	PC6. prepare and maintain the work area as per procedure or operation specification		2	1	1
	PC7. inspect power transformers including general transformer appearance, bushings, free of contamination, no oil leaks, auxiliary cooling system safely and as per required and approved procedures		3	1	2
	PC8. inspect circuit breakers including general breaker appearance, bushings, for contamination, oil leaks, doors locked and working safely and as per required and approved procedures		3	1	2
	PC9. inspect insulators including substation, bus support, suspension, etc. using safe and correct methods		3	1	2
	PC10. inspect any steel superstructures where applicable		3	1	2
	PC11. inspect substation components including circuit switchers, disconnect switches, coupling capacitors, capacitors, cable potheads, lightning arresters, metal-clad switchgear, relays, etc. safely, as per required and approved procedures		3	1	2

	PC12. inspect communication equipment, back-up battery systems, control house, etc. as per required and approved procedures		3	1	2
	PC13. inspect for physical security including locks on switches, enclosures, and gates, fences, gates, and warning signs (including washouts) to identify risks		3	1	2
	PC14. inspect grounds and the grounding system including broken, loose, or exposed wires and exposed ground rods as per required and approved procedures		3	1	2
	PC15. inspect for weeds and bird nests, such growth which may hamper access, deteriorate conditions of equipment and components, increase moisture content and support insect growth		2	1	1
	PC16. carry out specific equipment tests on the equipment based upon frequency of operation such as Oil dielectric tests, Relay tests, Infrared tests, Voltage regulation equipment tests accurately, efficiently and safely		2	0	2
	PC17. carry out predictive maintenance tests of load tap changer motor-control circuitry, and of breaker operator mechanisms accurately and safely		2	0	2
	PC18. carry out battery and battery-charger tests accurately and safely		2	0	2
	PC19. follow and develop plans and schedule inspections of distribution lines including regular periodic and special routines such as pre-monsoon inspection		2	0	2
	PC20. identify various types of circuits and its components accurately		1	0	1
	PC21. identify and acquire correct tools, equipment and instruments required for Distribution line assessment and inspection		1	0	1
	PC22. ensure the tools and equipment is well maintained, calibrated and approved for use		1	0	1

	PC23. access and survey area in accordance with established procedures		2	1	1
	PC24. assess components of distribution line for damage or risk for damage through visual, sensory and instrument methods		1	0	1
	PC25. carry out pole to pole inspection using patrolling as per job requirement, safely and efficiently		3	1	2
	PC26. assess and confirm condition of pole structure based on Distribution line standards		3	1	2
	PC27. check guys for damage, distance to primary conductor or equipment, insulator condition accurately		3	1	2
	PC28. check pole top assemblies for damage, safely and as per required and approved procedures		4	1	3
	PC29. perform load checks to identify imbalanced and overloaded circuits accurately and safely		3	1	2
	PC30. assist engineer in testing cable integrity and designation by using methods such as ultra-low frequency (ULF), very low frequency (VLF)		2	1	1
	PC31. check line conductors for damage, slack, tension, sparks and burns, foreign objects, clearance, etc. safely and as per required and approved procedures		3	1	2
	PC32. identify hazards of trimming trees such as limits of approach, public safety and step and touch potential		2	0	1
	PC33. conduct site inspection for emergency cases following established procedures		3	1	2
	PC34. observe and follow safety procedures		3	1	2
	PC35. document and record findings clearly, accurately and in required detail using correct forms and formats if any		1	0	1
	PC36. prepare recommendations for corrective and preventive maintenance based on the findings of the inspection		2	0	2
	PC37. clean and test Distribution line tools according to standard procedures		2	1	1

	PC38. inspect, repair and replace distribution line tools and equipment, if necessary after use		2	1	1
	PC39. restore system to normal operating status by using switching procedures where disconnected		2	1	1
	PC40. record details of inspection accurately and clearly in required ledgers, forms and formats as per required and approved procedures		2	1	1
	PC41. make correct and required recommendations for repair and maintenance where risks, faults or damage recorded		3	1	2
	PC42. deal promptly and effectively with problems within control, and seek help and guidance from the relevant people for problems that cannot be resolved		2	0	2
	PC43. leave the work area in a safe and tidy condition on completion of the inspection and testing activities		1	0	1
	PC44. refer unresolved job related problems to appropriate personnel for support		1	0	2
	PC45. monitor the problem and keep the supervisor informed about progress or any delays in resolving the problem		1	0	1
		Total	100	28	72
2. PSS/ N 0105: Repair and maintenance of Sub-station, Power Distribution Lines and components	PC1. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines	**100**	3	1	2
	PC2. adhere to procedures or systems in place for health and safety, personal protective equipment (PPE) and other relevant safety regulations for electrical and related operations		3	1	2
	PC3. work following laid down procedures and instructions		2	1	1
	PC4. ensure that all tools, equipment, etc. are in a safe and usable condition and are kept at secured location		1	0	1
	PC5. ensure work area is clean and safe from hazards before and after the job is completed		1	0	1

	PC6. access and survey area in accordance with established procedures		3	1	2
	PC7. assess and confirm condition of pole structure and components based on Distribution line standards		4	2	2
	PC8. perform load checks to identify imbalanced and overloaded circuits		2	0	2
	PC9. identify hazards of trimming trees such as limits of approach, public safety and step and touch potential prior to commencing work		2	0	2
	PC10. conduct site inspection for emergency cases following established procedures		3	1	2
	PC11. identify various types of circuits		1	0	1
	PC12. identify and acquire correct tools, equipment and instruments required for Distribution line assessment and inspection		1	0	1
	PC13. ensure the tools and equipment is well maintained, calibrated and approved for use		1	0	1
	PC14. use Distribution line tools, equipment and hardware in line with job requirements for maintenance operations		2	1	1
	PC15. prepare and maintain the work area as per procedure or operation specification		2	1	1
	PC16. switch off, isolate, discharge and earth (side) line cables		2	0	2
	PC17. confirm and/or obtain PTW/work permit (shut down) is taken to proceed to work from appropriate personnel in accordance with standard procedure		3	1	2
	PC18. safely operate switchgears eg. on/off, earth, etc.		2	0	2
	PC19. perform off-line overhead line maintenance procedure according to job specifications and requirements		4	2	2
	PC20. perform off-line underground line maintenance procedure according to job specifications and requirements		4	2	2
	PC21. perform stay wire assembly as per requirements and specifications, safely and efficiently		4	2	2

PC22. ensure lines are properly aligned by tightening appropriate nuts and bolts		2	0	2
PC23. ensure proper clearance of lowest conductor from ground		2	0	2
PC24. ensure guy insulators are of suitable capacity to the stay sets		2	0	2
PC25. select and use test equipment such as tong testers/clip-on meter, meggers and voltmeters to verify fault and integrity		2	0	2
PC26. sectionalize circuit to determine location of fault		2	0	2
PC27. isolate fault, damage or hazard and restore power to customers using equipment such as switches		2	0	2
PC28. repair conductor by splicing, jointing, using armor rods, line guards, vibration dampers		2	0	2
PC29. check work carried out by team members and ensure it is as per standard requirement		4	2	2
PC30. provide useful feedback regarding work matter to team members in a timely, polite and supportive manner		2	0	2
PC31. report trouble and required actions such as repairs or replacements, and estimated repair time to system authority		2	0	2
PC32. ensure pole dismantling and re-setting procedure is carried out as per standard procedure, where required		4	2	2
PC33. carry out conductor stringing procedures, paving conductor on the ground along the pole taking into account permissible span length and sagging		3	0	3
PC34. replace components such as transformers, disconnects, conductors, poles, switches, elbows and terminations and insulators safely and as per company procedure		3	1	2
PC35. replace other line components due to damage or unsuitability as per standard procedure, where required		3	1	2

	PC36. make connections and energize replaced underground cables, as per standard procedures where required		4	2	2
	PC37. restore system to normal operating status by using switching procedures		3	1	2
	PC38. deal promptly and effectively with problems within control, and seek help and guidance from the relevant people for problems that cannot be resolved		2	0	2
	PC39. leave the work area in a safe and tidy condition on completion of the repair and maintenance activities		2	0	2
	PC40. refer unresolved job related problems to appropriate personnel for support		2	0	2
	PC41. monitor the problem and keep the supervisor informed about progress or any delays in resolving the problem		2	0	2
		Total	100	25	75
3. PSS/ N 0107: Operation and maintenance of 11/0.433 KV Distribution Substation	PC1. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines	**100**	3	1	2
	PC2. adhere to procedures or systems in place for health and safety, personal protective equipment (PPE) and other relevant safety regulations for Electrical and related operations		3	1	2
	PC3. work following laid down procedures and instructions		2	1	1
	PC4. ensure that all tools, equipment, power cables are in a safe and usable condition and are kept at secured location		2	0	2
	PC5. ensure work area is clean and safe from hazards before and after the job is completed		2	0	2
	PC6. inspect the component to check if it is as per specification and without defects		3	1	2
	PC7. identify job requirements for specific operations as per instructions given from valid sources		3	1	2
	PC8. identify various components of the power system		2	1	1

	PC9. ensure equipment and tools required for installation work are identified, acquired, calibrated, suitable and approved for use		2	0	2
	PC10. identify, estimate and acquire correct materials required for the Substation erection and installation work		2	0	2
	PC11. follow standard specifications and procedures for installing a pole mounted distribution transformer		5	2	3
	PC12. ensure poles set to proper depth, and properly aligned		2	0	2
	PC13. carry out erection of channel on the double pole for preparation of transformer bed as per requirement		5	2	3
	PC14. fix lightening arrester as per requirement and standard procedure		4	2	2
	PC15. install earth connection as per standard procedure		3	1	2
	PC16. install cross arm as per specifications and requirement		3	1	2
	PC17. provide anti-climbing device on poles		2	0	2
	PC18. arrange to lift the transformer and put it on the transformer bed in a safe and efficient manner		3	0	3
	PC19. fit the Gang operating (GO Switch) and dropout fuse as per standard procedure		5	2	3
	PC20. follow applicable construction standards eg. REC construction standards, for carrying out the erection procedures		4	2	2
	PC21. connect low voltage cables as per standard procedures in a safe and efficient manner		3	1	2
	PC22. carry out low voltage able joints as per standard procedures, safely and effectively		3	1	2
	PC23. perform post-installation procedures for ensuring clean and safe environment in the work and surrounding area		2	0	2
	PC24. check Oil level and ensure leakages are attended to and arrested		2	0	2

	PC25. check Oil BDV and acidity at regular intervals as per schedule and standard procedure		3	1	2
	PC26. checking for sludge, dust, dirt ,moisture ion in oil and address it effectively in a timely fashion		2	0	2
	PC27. clean bushings regularly and inspect for any cracks		2	0	2
	PC28. check, note and rectify dust & dirt deposition, salt or chemical deposition, cement or acid fumes depositions		2	0	2
	PC29. check tap position and gap of arching horn and tighten connection as requirement to address any issues		3	1	2
	PC30. check neutral grounding and ensure it is maintained as per standard		3	1	2
	PC31. periodically check for any loose connections of the terminations of HV & LV side		2	0	2
	PC32. examine the breather through color of silica gel , if pink heat it or replace if necessary		2	0	2
	PC33. ensure facility is locked and warning signs are displayed effectively		2	0	2
	PC34. deal promptly and effectively with problems within control, and seek help and guidance from the relevant people for problems that cannot be resolved		3	0	3
	PC35. leave the work area in a safe and tidy condition on completion of the substation construction and maintenance activities		2	0	2
	PC36. refer unresolved job related problems to appropriate personnel for support		2	0	2
	PC37. monitor the problem and keep the supervisor informed about progress or any delays in resolving the problem		2	0	2
		Total	**100**	**23**	**77**
4. PSS/ N 0110: Supervise work and crew in power	PC1. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines	**100**	6	2	4

distribution installation and maintenance work	PC2. work following laid down procedures and instructions		4	1	3
	PC3. ensure that work is done within the specified departmental rules and regulations, organisation rules, span of authority, roles and responsibilities for self and other team members		5	2	3
	PC4. ensure work area is clean and safe from hazards before and after the job is completed		4	1	3
	PC5. ensure self and all team members have completed necessary training in electrical safety and other mandatory trainings		4	1	3
	PC6. ensure while carrying out electrical work during repair and maintenance, installation or other work in the vicinity of power lines, substations, etc. all team members are complying with PPE requirements		5	2	3
	PC7. requisition necessary equipment, tools, materials or PPE gear from the store for carrying out work as per job and safety requirements		6	2	4
	PC8. explain to team members requirements of the job or task plan and clarify for shared understanding		5	1	4
	PC9. inspect work being carried out by team members to ensure work is being carried out safely and as per required and approved procedures		6	2	4
	PC10. inspect preparation, process and output of work to assess suitability as per job specifications and compliance to organisational and other rules and regulations		6	2	4
	PC11. ensure time on the job is utilised properly to achieve optimum productivity and efficiency		5	2	3
	PC12. assist team members to develop their own knowledge, skills and abilities by providing timely and accurate guidance, feedback and responsibilities		5	1	4
	PC13. address low performance through training, informal and formal guidance, support from other		6	2	4

	supervisors, management and HR department				
	PC14. record details of performance and other records required by organisation and departmental authorities, details accurately and clearly in required ledgers, forms and formats as per required and approved procedures		6	2	4
	PC15. address grievances and complaints promptly and as per organizational guidelines		6	2	4
	PC16. report incident and accidents as per organisational procedure in a timely fashion with necessary detail		6	2	4
	PC17. deal promptly and effectively with problems within control, and seek help and guidance from the relevant people for problems that cannot be resolved		5	1	4
	PC18. refer unresolved job related problems to appropriate personnel for support		5	1	4
	PC19. monitor the problem and keep the supervisor informed about progress or any delays in resolving the problem		5	1	4
		Total	**100**	**30**	**70**
5. PSS/ N 2001 (Use basic health and safety practices at the workplace)	PC1. use protective clothing/equipment for specific tasks and work conditions	**100**	3	0	3
	PC2. state the name and location of people responsible for health and safety in the workplace		2	0	2
	PC3. state the names and location of documents that refer to health and safety in the workplace		2	0	2
	PC4. identify job-site hazardous work and state possible causes of risk or accident in the workplace		3	1	2
	PC5. follow electrical safe working procedures such as Tag out/Lock out, PTW (Permit To Work),		3	1	2
	PC6. follow warning signs (danger, out of service, etc.) while working with electrical systems		3	1	2

	PC7. use standard safe working practices when working at heights, confined areas and trenches		3	1	2
	PC8. test any electrical equipment and system using insulated testing devices before touching them		3	1	2
	PC9. ensure positive isolation of electrical equipment & system as per given standards		3	1	2
	PC10. recognize any abnormalities in electrical equipment or system installed alarm annunciation and/or noticing parameters from gauge/ indicator installed		3	1	2
	PC11. carry out safe working practices while dealing with hazards to ensure the safety of self and others		3	1	2
	PC12. state methods of accident prevention in the work environment of the job role		2	0	2
	PC13. state location of general health and safety equipment in the workplace		2	0	2
	PC14. inspect for faults, set up and safely use of scaffolds and elevated platforms and ladders		2	0	2
	PC15. lift, carry and transport heavy objects & tools safely using correct procedures from storage to workplace and vice versa		3	1	2
	PC16. inspect power plant and its equipment routinely for any signs of oil, water and/or steam leakage		3	0	3
	PC17. store flammable materials and machine lubricating oil safely and correctly		2	0	2
	PC18. check that the emission and pollution control devices are working properly in line with environmental policy standards		5	2	3
	PC19. apply good housekeeping practices at all times		3	1	2
	PC20. identify common hazard signs displayed in various areas		2	0	2
	PC21. retrieve and/or point out documents that refer to health and safety in the workplace		2	0	2

	PC22. inform relevant authorities about any abnormal situation/behavior of any equipment/system promptly		3	0	3
	PC23. use the various appropriate fire extinguishers on different types of fires correctly		4	1	3
	PC25. demonstrate good housekeeping in order to prevent fire hazards		3	1	2
	PC26. demonstrate the correct use of a fire extinguisher		3	1	2
	PC27. demonstrate how to free a person from electrocution		3	1	2
	PC28. administer appropriate first aid to victims where required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc.		3	0	3
	PC29. demonstrate basic techniques of bandaging		3	1	2
	PC30. respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments		3	1	2
	PC31. perform and organize loss minimization or rescue activity during an accident in real or simulated environments		3	1	2
	PC32. administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases		3	1	2
	PC33. demonstrate the artificial respiration and the CPR Process		3	1	2
	PC34. participate in emergency procedures		3	1	2
	PC35. complete a written accident/incident report or dictate a report to another person, and send report to person responsible		3	1	2
	PC36. demonstrate correct method to move injured people and others during an emergency		3	1	2
		Total	**100**	**24**	**76**
6. CSC/ N 1336 (Work effectively with others)	PC1. accurately receive information and instructions from the supervisor and	**100**	10	3	7

	fellow workers, getting clarification where required				
	PC2. accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt		10	3	7
	PC3. give information to others clearly, at a pace and in a manner that helps them to understand		10	3	7
	PC4. display helpful behavior by assisting others in performing tasks in a positive manner, where required and possible		10	3	7
	PC5. consult with and assist others to maximize effectiveness and efficiency in carrying out tasks		10	3	7
	PC6. display appropriate communication etiquette while working		10	3	7
	PC7. display active listening skills while interacting with others at work		10	3	7
	PC8. use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism		10	3	7
	PC9. demonstrate responsible and disciplined behaviors at the workplace		10	3	7
	PC10. escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict		10	3	7
		Total	**100**	**30**	**70**

सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP

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