

# LEP ASSESSMENT REVIEW

Candidate Name: \_\_\_\_\_

Assessment Date: \_\_\_\_\_

Assessment Venue: \_\_\_\_\_

Final Mark: \_\_\_\_\_

Note: Only marks deducted are indicated on this paper review. If there is no indication of an error or omission, full marks were awarded for that section.

## Question 1: Meter Panel and Switchboard Wiring

<b>1. Design of the installation (information provided by candidate on page 7 of the paper)</b>	
	Incorrect standard/table/column used for cable selection of mains, sub main, three phase load and single phase loads (cross out not applicable)
	Total MD of the installation (highest loaded phase) incorrect
	Current rating of main switch less than the maximum demand, but mains cable protected
	Mains cable not protected by main switch/circuit breaker
	Incorrect size mains cable
	Main earth conductor size incorrect
	Total MD of the distribution board incorrect
	Current rating of distribution board sub-main circuit protection less than the maximum demand, but sub-main cable protected.
	Sub-main cable not protected by distribution board sub-main circuit protection
	Incorrect size sub-main cable
	Units in tables omitted or incorrect
<b>2. Incorrect installation wired</b>	
	The type of supply installed does not match the installation requested
<b>3. Underground Pit</b>	
	Address label not on the U/G cables
	Address does not include house number or street (cross out not applicable)
<b>4. Fused Mains Box</b>	
	Consumer mains active/neutral not installed as per manufacturer instructions
	Consumer mains reverse polarity active/neutral
<b>5. Meter panel supply fuses</b>	
	Meter panel fuses installed with O/H consumer mains
	Meter panel fuses incorrectly wired (no protection provided) or fuses omitted.
	Phase sequence not as per SIR requirements
<b>6. Meter panel wiring</b>	
	Line and load active not installed as per SIRs - meter panel wiring requirements
	Active colour conductor used as meter neutral
	Meter neutral not installed, or undersize
	Meter neutral not in accordance with SIR requirement and minimum size requirement

<b>7. Neutral Link</b>	
	Consumer mains incoming neutral not connected under clamp terminal
	Neutral Link not used
<b>8. Cable Tie</b>	
	All cables entering or leaving the hinged meter panel not under cable tie and tied to the meter panel
	Cable tie installed but too loose to stop cables from having undue stress placed on them.
<b>9. Address Label on Meter Panel</b>	
	Address label does not include house no, street, and suburb
	Address label not provided on the meter panel as per SIR requirement
<b>10. Underground Details</b>	
	Underground cable location diagram not provided
	Underground cable location diagram & details not provided as per instructions or incomplete. (cross out not applicable) *Pit location / meter panel location *Cable route *Measurements as per paper for accuracy
<b>11. MEN Connection</b>	
	MEN link not installed
	MEN link under size
	MEN link and main neutral in incorrect position on neutral bar and not labelled
<b>12. Main Earth installation</b>	
	Excess earthing conductor is provided at the end of the conduit adjacent to the earth electrode, and/or earth conductor not cable tied to electrode.
	No earth clip used / earth clip not installed as per standard work practice
	Switchboard frame not earthed
	No main earth conductor installed
	Incorrect main earth size
	Earth electrode location not identified at the main switchboard
	"Do not disconnect" tag not installed as per the WR requirements.
<b>13. Main Switch - Overload protection on consumers mains</b>	
	Overload protection not provided for mains
	Main switch incorrect rating
<b>14. Distribution Board – Isolator, Sub-mains and Protection</b>	
	Overload protection not provided for sub-mains

	Distribution board isolator not provided as per instructions, but sub-mains protected
	Incoming neutral on distribution board into earth terminal on the neutral bar
<b>15. Labelling</b>	
	Main switch not labelled as a main switch
	Distribution Board circuit protection device on MSB labelled Main Switch
	Distribution board isolator on distribution board labelled as Main Switch
	FSC load labels omitted or incorrect Indicate which circuit:
	RCD not labelled to indicate what it controls
	MSB not labelled 'Main Switchboard' on a non-domestic installation
<b>16. Switchboard wiring and F.S.C. cables &amp; connections</b>	
	Incorrect number of FSC neutrals
	Incorrect number of FSC earths
	FSC active/s omitted Indicate which circuit:
	Incorrect neutral sequencing
	Incorrect cable/s used within the switchboard wiring Indicate which cables:
	Incorrect colour of outgoing FSC earths / neutrals
	FSC circuit protection insufficient to carry load Indicate which circuit:
	FSC cable not protected by circuit protection Indicate which circuit:
	FSC active oversize Indicate which circuit:
	Neutral incorrect size in relation to corresponding active Indicate which circuit:
	RCD protection not installed or RCD/s not wired to operate correctly Indicate which circuit:
	MEN situation created at distribution board
	Three phase load FSC cables unterminated

<b>17. Access to live parts</b>	
	Main switchboard escutcheon plate missing / Distribution Board cover not securely closed
	Pole fillers missing
	Neutral link cover not installed
	Meter panel not closed
	3 phase load cover not installed
<b>18. Extra components / circuit supplied and / or omitted and not already penalised</b>	
	Extra circuit provided or omitted
	Using an RCD/MCB combo PLUS MCBs
<b>19. Other Defect (not listed above)</b>	
	Unsafe defect not listed above
	Non-compliant defect not listed above:

Total Marks LOST for Question 1

Total Marks awarded for Question 1

## Question 2: Electrical Installation Testing

<b>2.1 Resistance of Main Earth and Bonding Conductors</b>	
	Main Earthing Conductor reading incorrect
	Main Earthing Conductor pass/fail result incorrect
	Bonding conductor to water pipe reading incorrect
	Bonding conductor to water pipe pass/fail result incorrect
	Missing or incorrect unit/s
<b>2.2 Insulation resistance of wiring</b>	
	Whole installation reading incorrect
	Whole installation pass/fail result incorrect
	Circuit 1 reading incorrect
	Circuit 1 pass/fail result incorrect
	Circuit 2 reading incorrect
	Circuit 2 pass/fail result incorrect
	Circuit 3 reading incorrect
	Circuit 3 pass/fail result incorrect
	Circuit 4 reading incorrect
	Circuit 4 pass/fail result incorrect
	Missing or incorrect unit/s
<b>2.3 Earthing and insulation resistance of appliance</b>	
	Earthing of Exposed Metal reading incorrect
	Earthing of Exposed Metal pass/fail result incorrect
	Insulation Resistance reading incorrect
	Insulation Resistance pass/fail result incorrect
	Missing or incorrect unit/s
<b>2.4 Resistance of Protective Earthing Conductors</b>	
	Circuit 1 reading incorrect
	Circuit 1 pass/fail result incorrect
	Circuit 2 reading incorrect
	Circuit 2 pass/fail result incorrect
	Circuit 3 reading incorrect
	Circuit 3 pass/fail result incorrect
	Circuit 4 reading incorrect
	Circuit 4 pass/fail result incorrect
	Missing or incorrect unit/s

<b>2.5 Polarity test of consumers mains</b>	
	Active reading incorrect
	Active pass/fail result incorrect
	Neutral reading incorrect
	Neutral pass/fail result incorrect
	Missing or incorrect unit/s
<b>2.6 Operation of Switches</b>	
	Ceiling Rose reading incorrect
	Ceiling Rose pass/fail result incorrect
	Fluorescent Luminaire reading incorrect
	Fluorescent Luminaire pass/fail result incorrect
	Socket Outlet 1 reading incorrect
	Socket Outlet 1 pass/fail result incorrect
	Socket Outlet 2 reading incorrect
	Socket Outlet 2 pass/fail result incorrect
	Fan socket outlet reading incorrect
	Fan socket outlet pass/fail result incorrect
<b>2.7 Testing of Circuit for Automatic Disconnection of Supply (Fault loop impedance)</b>	
	Reading incorrect
	Incorrect value from Table 8.2
	Pass/fail result incorrect
	Missing or incorrect unit/s
<b>2.8 Testing of Operation of RCDs</b>	
	RCD 1 trip time reading incorrect
	RCD 1 trip current reading incorrect
	RCD 2 trip time reading incorrect
	RCD 2 trip current reading incorrect
	RCD 3 trip time reading incorrect
	RCD 3 trip current reading incorrect
	Missing or incorrect unit/s
	Wiring Rule answer incorrect
	Wiring Rule clause number incorrect

Total Marks LOST for Question 2

Total Marks awarded for Question 2

### Question 3: MEN System Voltage Measurements

3.1 Voltage Measurements	
	Supply voltage reading incorrect
	Test condition 1 – independent earth and appliance frame reading incorrect
	Test condition 1 – independent earth and water tap/pipe reading incorrect
	Test condition 1 – appliance terminals reading incorrect
	Test condition 2 – independent earth and appliance frame reading incorrect
	Test condition 2 – independent earth and water tap/pipe reading incorrect
	Test condition 2 – appliance terminals reading incorrect
	Test condition 3 – independent earth and appliance frame reading incorrect
	Test condition 3 – independent earth and water tap/pipe reading incorrect
	Test condition 3 – appliance terminals reading incorrect
	Missing or incorrect unit/s
3.2 Diagram and written description	
	Current flow on diagram incorrect
	Written description does not indicate the installation is safe/unsafe
	Written description does not correctly explain the path of current flow
	Written description does not correctly explain why the current takes this path
	Written description does not correctly explain why the voltage readings increase as circuit breakers are switched on
	Written description is contradictory

Total Marks LOST for Question 3

Total Marks awarded for Question 3



## Question 4: Visual Defects

- Note: If the wiring defect is incorrect or so poorly worded the assessor is unable to identify meaning, then no mark shall be awarded for the corresponding clause number

	Defect 1 wiring defect incorrect
	Defect 1 clause number incomplete or incorrect
	Defect 2 wiring defect incorrect
	Defect 2 clause number incomplete or incorrect
	Defect 3 wiring defect incorrect
	Defect 3 clause number incomplete or incorrect
	Defect 4 wiring defect incorrect
	Defect 4 clause number incomplete or incorrect
	Defect 5 wiring defect incorrect
	Defect 5 clause number incomplete or incorrect

Total Marks LOST for Question 4

Total Marks awarded for Question 4