

LEP ASSESSMENT REVIEW

| Candidate Name: | | |
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| | | |
| | | |
| | | |
| Assessment Date: | | |
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| A \ | | |
| Assessment Venue: | POLYTECHNIC | |
| | | |
| 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

| 1. Desi | gn of the installation (information provided by candidate on page 7 of per) |
|---------|---|
| | 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 |
| 2. Inco | rrect installation wired |
| | The type of supply installed does not match the installation requested |
| 3. Und | erground Pit |
| | Address label not on the U/G cables |
| | Address does not include house number or street (cross out not applicable) |
| 4. Fuse | ed Mains Box |
| | Consumer mains actives/neutral not installed as per manufacturer instructions |
| | Consumer mains reverse polarity active/neutral |
| 5. Mete | er panel |
| | Meter panel bypassed |
| | Meter panel fuses installed with O/H consumer mains |
| | Meter panel fuses incorrectly wired (no protection provided) or fuses omitted. |
| | Meter panel fuses not as per SIR in relation to line/load |
| | Phase sequence not as per SIR requirements |
| | Line and load actives 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 |
|------------|---|
| | Consumer mains incoming neutral not connected under clamp terminal |
| 1 | Neutral Link not used |
| 6. Cable T | ie |
| 1 | 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. |
| 7. Address | Label on Meter Panel |
| , | Address label does not include house no, street, and suburb |
| , | Address label not provided on the meter panel as per SIR requirement |
| 8. Undergr | ound Details |
| | Underground cable location diagram not provided |
| j | Underground cable location diagram & details not provided as per instructions or incomplete. (cross out not applicable) *Pit location / meter panel location *Cable route |
| 1 | *Measurements as per paper for accuracy |
| 9. MEN Co | |
| | MEN link not installed |
| | MEN link under size |
| | MEN link and main neutral on neutral bar not in positions specified in the Wiring Rules and not labelled |
| 10. Main E | arth installation |
| | 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. |
| 1 | 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. |
| 11 Main S | witch - Overload protection on consumers mains |
| | Overload protection not provided for mains |
| | Main switch incorrect rating |
| | |

| 12 Dietr | ibution Board – Isolator, Sub-mains and Protection |
|-----------|--|
| IZ. DISII | 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 |
| 13. Labe | |
| | 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 |
| 14. Swite | chboard wiring and F.S.C. cables & connections |
| | 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 |
| 15. Acces | ss to live parts |
| | Main switchboard escutcheon plate missing / Distribution Board cover not securely closed |
| | FOLCB cover missing |
| | Pole fillers missing |
| | Neutral link cover not installed |
| | Meter panel not closed |
| | 3 phase load cover not installed |
| 16. Extra penalised | |
| | Extra circuit provided or omitted |
| | Using an RCD/MCB combo PLUS MCBs |
| 17. Other | Defect (not listed above) |
| | Unsafe defect not listed above |
| | Non-compliant defect not listed above: |
| Total Ma | rks LOST for Question 1 |
| Total Ma | rks awarded for Question 1 |

Question 2: Electrical Installation Testing

| 2.1 Resi | stance of Main Earth and Bonding Conductors |
|-----------|--|
| | 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 |
| 2.2 Insul | ation resistance of wiring |
| | 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 |
| 2.3 Earth | ning and insulation resistance of appliance |
| | 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 |
| 2.4 Resi | stance of Protective Earthing Conductors |
| | 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 |
| | |

| 2.5 Pola | rity test of consumers mains |
|----------|--|
| 2.01 014 | Active reading incorrect |
| | Active pass/fail result incorrect |
| | Neutral reading incorrect |
| | Neutral pass/fail result incorrect |
| | Missing or incorrect unit/s |
| 2.6 Ope | ration of Switches |
| 1 | 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 |
| 2.7 Test | ing of Circuit for Automatic Disconnection of Supply (Fault loop |
| impedar | |
| | Reading incorrect |
| | Incorrect value from Table 8.2 |
| | Pass/fail result incorrect |
| | Missing or incorrect unit/s |
| 2.8 Test | ing of Operation of RCDs |
| | 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 |
| <u> </u> | |

| Total Marks LOST for Question 2 | |
|---------------------------------|--|
| | |
| LED Danas Davious July 2010 | |

Total Marks awarded for Question 2

Question 3: MEN System Voltage Measurements

| 3.1 Voltad | ge 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 |
| | Installation safe/unsafe determination incorrect |
| | Current path indicated on diagram incorrect for measured circuit and/or indicated fault type |
| | Location of fault indicated on diagram incorrect |
| 3.2 Ques | tions |
| | Question 1 incorrect or omitted |
| | Question 2 incorrect or omitted |
| | Question 3 incorrect or omitted |
| | Question 4 incorrect or omitted |
| | |

| 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 | |