



**PEJABAT KETUA MERINYU LETRIK**  
**CHIEF ELECTRICAL INSPECTOR'S OFFICE**

**SYLLABUS FOR WIREMAN GRADE II EXAMINATION – Revised 01/2002**

<b>A. THEORY</b>	
<p><b>(1) Electricity Ordinance Cap.137</b></p> <ul style="list-style-type: none"><li>i. Requirements of Electricity Ordinance.</li><li>ii. Electricity Rules.</li></ul> <p><b>(2) Trade Orientation and Electrical Safety</b></p> <ul style="list-style-type: none"><li>i. Nature and scope of work of a wireman.</li><li>ii. Safety rules and regulations pertaining to working procedures.</li><li>iii. Electrical shock treatment.</li><li>iv. Occupational Safety And Health Act 1990.</li></ul> <p><b>(3) Basic Electricity</b></p> <ul style="list-style-type: none"><li>i. Basic theory and simple calculation.</li><li>ii. Ohm's Law.</li></ul> <p><b>(4) Supply System</b></p> <ul style="list-style-type: none"><li>i. Standard Voltage.</li><li>ii. Variation of voltage and frequency.</li><li>iii. Single-phase two-wire distribution.</li></ul> <p><b>(5) Consumer's circuit</b></p> <ul style="list-style-type: none"><li>i. Internal distribution.</li><li>ii. IEE Regulation for control.</li><li>iii. Relative rating of conductors and protection devices.</li><li>iv. Arrangements of final sub-circuits.</li></ul>	<p><b>(6) Conductors and Cables</b></p> <ul style="list-style-type: none"><li>i. Conductor materials.</li><li>ii. Insulation materials.</li><li>iii. Mechanical protection.</li><li>iv. Current-carrying capacity of cables.</li></ul> <p><b>(7) Wiring System</b></p> <ul style="list-style-type: none"><li>i. Surface wiring.</li><li>ii. Regulations, location, types of cable.</li></ul> <p><b>(8) Wiring Accessories</b></p> <p><b>(9) Earthing</b></p> <ul style="list-style-type: none"><li>i. Definition of 'Earth'.</li><li>ii. Danger from earthed metal.</li><li>iii. IEE Regulations.</li><li>iv. Basic earthing requirements.</li><li>v. Methods of earthing.</li></ul> <p><b>(10) Domestic Apparatus</b></p> <ul style="list-style-type: none"><li>i. Schematic diagram, working principle, and testing regulation on electric cookers, water heaters, bells, fans, etc.</li></ul> <p><b>(11) Illumination</b></p> <ul style="list-style-type: none"><li>i. Incandescent filament lamps.</li><li>ii. High-pressure mercury-vapour discharge lamp.</li><li>iii. Sodium-vapour discharge lamps.</li><li>iv. Fluorescent lamps.</li></ul>
<b>B. PRACTICAL</b>	
<p><b>(1) Single-phase wiring installation inclusive of the following:</b></p> <ul style="list-style-type: none"><li>i. Lighting points socket.</li><li>ii. 13A/15A power points.</li><li>iii. Isolator.</li><li>iv. Two-way switch.</li><li>v. Consumer unit connections.</li></ul> <p><b>(2) Single-phase motor connections.</b></p>	