

**CALIFORNIA RESIDENTIAL ELECTRICAL INSPECTOR
JOB TASK ANALYSIS & EXAMINATION OUTLINE**

EXAM ID: J 2

- **60 multiple-choice questions**
- **2-hour time limit**
- **Open book**

	<i>Approximate % of 60 Questions</i>	
01	GENERAL REQUIREMENTS (Content Area)	10%
0101.	<u>Project Administration</u> (Task) Verify that required permits are issued and valid. Verify that the required approved plans and specifications are available when required and retained by the building official for the period required.	1%
0102.	<u>Public Information and Legal</u> (Task) Communicate the intent of the code using proper terminology. Answer questions about general code compliance, procedures and materials. Identify the suitability of the installation of materials according to the listing, and labeling. Communicate issues and maintains inspection reports, correction notices, stop work orders and data for the issuance of the certificate of occupancy.	1%
0103	<u>Electrical Theory</u> (Task) Apply basic electrical theory to determine loads and circuit ampacities for safe installation of electrical systems.	2%
0104	<u>Clearances and Guarding</u> (Task) Determine required working clearances, location, access and guarding requirements for electrical installations.	2%
0105	<u>Connections and Splices</u> (Task) Verify that conductor connections, splices and terminal identification meet code requirements.	2%
0106	<u>Conductors</u> (Task) Inspect conductors to verify correct use, type, insulations, markings, and ampacity.	2%
02	SERVICES (Content Area)	17%
0201	<u>Service Size and Rating</u> (Task) Inspect services to verify required conductor ampacity, clearances, location, materials and equipment.	8%
0202	<u>Service Grounding and Bonding</u> (Task) Verify size, type of conductors and electrodes including location and installation.	9%
03	BRANCH CIRCUIT & FEEDER REQUIREMENTS (Content Area)	28%
0301	<u>Feeders</u> (Task) Inspect feeders to verify conductor size, clearances, location, materials and grounding conductors.	5%
0302	<u>Branch Circuit and Feeder Calculations</u> (Task) Verify that the load to be placed on branch circuits and feeders meets code provisions for the conductor, devices, materials and equipment installed.	6%
0303	<u>Branch Circuit Ratings and Overcurrent Protection</u> (Task) Verify correct size, type, location and installation of overcurrent devices.	7%
0304	<u>Required Branch Circuits</u> (Task) Verify that all required branch circuits are provided.	5%
0305	<u>Panelboards</u> (Task) Verify panelboard rating, circuit identification, overcurrent protection, and correct installation.	5%

04	WIRING METHODS AND POWER & LIGHTING DISTRIBUTION (Content Area)	21%
0401	<u>Installation Methods</u> (Task) Verify that installation of all conductors, cables, raceways, and fittings meet code requirements. Verify that underground wiring meets code requirements.	4%
0402	<u>Branch Circuit Required Outlets</u> (Task) Verify that receptacle and lighting outlets and switches are provided in all required locations.	4%
0403	<u>Branch Circuits – GFCI</u> (Task) Verify that ground-fault circuit interrupter protection is provided in all required locations.	4%
0404	<u>Boxes and Enclosures</u> (Task) Verify that boxes are proper type, correctly sized and installed.	3%
0405	<u>Equipment Grounding</u> (Task) Verify equipment bonding and grounding conductor sizes, connections, and installation.	3%
0406	<u>Flexible Cords</u> (Task) Verify proper use and sizing of flexible cords.	2%
0407	<u>Class 2 Circuits</u> (Task) Inspect low voltage control wiring, Class 2 circuits, and fire alarm circuits.	1%

05	DEVICES, LIGHTING FIXTURES & APPLIANCES (Content Area)	19%
0501	<u>Switches and Receptacles</u> (Task) Verify that switches and receptacles are of the correct type, rating, and are installed properly.	6%
0502	<u>Light Fixtures</u> (Task) Verify that light fixtures and fixture wires are of correct type and rating and are properly installed.	4%
0503	<u>Appliances</u> (Task) Inspect appliance wiring and equipment to verify correct type, use, installation and disconnecting means.	5%
0504	<u>Heating and Cooling Equipment</u> (Task) Inspect space heating and cooling equipment including air conditioning and refrigeration wiring and equipment to verify correct type, use, installation and disconnecting means.	4%

SWIMMING POOLS AND SIMILAR INSTALLATIONS (Content Area) 5%

0601	<u>Swimming Pool Wiring</u> (Task) Verify proper installation of swimming pools, spas, hot tubs, hydromassage bathtubs, etc. Verify proper installation of swimming pools, spas, hot tubs, hydromassage bathtubs, etc.	5%
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