considerable value to one registered on the basis of having passed such an examination if, at some future date, he might find it necessary to obtain reciprocal registration as an architect in another state. Applicants for registration as an architect must take 2 examinations, an "equivalency examination" and a "professional examination" except that applicants who have graduated from a school with curriculum approved by the architects' section as provided in section A-E 1.01 are not required to take the equivalency examination.

(b) *Place of examinations*. The examinations will be held at sites designated by the board.

(c) Time of examinations. To be arranged.

(d) Scope of examination. 1. The 20 hour equivalency examination consists of 3 parts: Part I (construction, theory & practice); Part II (architectural theory); Part III (design). An applicant must, unless exempt from the equivalency examination under (a), pass all parts of the equivalency examination before he will be eligible to take the professional examination.

2. The professional examination consists of both oral and written parts. The final grade includes a rating based on the applicant's architectural training and practical experience.

a. The 16-hour written part of the professional examination consists of 4 integrated sections and must be taken in its entirety: Part 1 (environmental analysis); part 2 (architectural programming); part 3 (design and technology); part 4 (construction). An applicant who fails the written part of the professional examination must retake the written part of the professional examination in its entirety and must pass all sections to be eligible for registration as an architect.

b. The oral part of the professional examination consists of an appearance before the architects' section during which the applicant's academic preparation, employment experience, overall qualification and attitude relating to the practice of architecture is evaluated. An applicant who fails the oral part of the professional examination must retake and pass the oral part to be eligible for registration as an architect. An applicant who fails either the written or oral part of the professional examination, must retake only the part failed. Detailed information regarding examinations will be made available upon request to the board's office.

(e) Academic and experience requirements for entrance to "equivalency examination." 1. A candidate for registration as an architect shall be admitted to the equivalency examination if the candidate has 4 years of acceptable academic credit or a combination of academic credit and architectural work experience which totals 4 years.

(f) Requirements for entrance to "professional examination." A candidate for registration as an architect shall be admitted to the professional examination if the candidate has either obtained a degree in architecture accredited by the national architectural accrediting board or has successfully completed the equivalency examination.

(5) WRITTEN EXAMINATIONS FOR ENGINEER-IN-TRAINING AND PROFES-SIONAL ENGINEER. (a) Examinations required. 1. For certification as

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engineer-in-training-fundamentals examination. Total 1 day (8 hours).

2. For registration as professional engineer.

a. If certified as engineer-in-training-principles and practice examination. Total 1 day (8 hours).

b. If not certified as engineer-in-training—fundamentals examina-tion and principles and practice examination. Total 2 days (16 hours).

(b) Place and time of examinations. The examinations will be held at sites and on dates designated by the board.

(c) Grading of written examinations, passing grades and retakes. 1. Experience ratings will not be weighed as a part of the examinations.

2. On each 8-hour examination the passing grade shall be at least 70%.

(d) Scope of written examinations. 1. Fundamentals examination-requires an understanding of the physical and mathematical sciences involved in the fundamentals of engineering.

2. Principles and practice examination—requires ability to apply engineering principles and judgment to problems in general engineering fields such as chemical, civil, electrical and mechanical fields. Questions involving economic analysis and the design needs of people with physical disabilities and relevant statutes and codes will be included.

(6) EXAMINATIONS FOR LAND SURVEYORS. (a) Satisfactory completion of 2 examinations is required for registration as a land surveyor. The 2 examinations are: "Fundamentals of Land Surveying" (1 day, 8 hours) and "Principles and Practice" (1 day, 8 hours).

(b) Place of examinations. The examinations will be held at sites designated by the board.

(c) Time of examinations. To be arranged.

(d) Grading of written examinations, passing grades. 1. Experience ratings will not be weighed as part of the examinations.

2. On each 8 hour examination the passing grade shall be at least 70%.

(e) Scope of written examinations. 1. Fundamentals of Land Surveying: Requires an understanding of mathematics, physics, surveying methods for measuring horizontal, vertical and angular values, topographic and photogrametric mapping, notekeeping, property surveys, computations, descriptions and plats.

2. Principles and Practice: Requires ability to apply principles and judgment to problems involving the U.S. System of Public Land Surveys, Wisconsin plane coordinate surveys, the relocation of lost and obliterated corners, the legal essentials of resurveys, disputed boundaries, defective deed descriptions, riparian rights, adverse possession, the Wisconsin statutes relative to land surveying including the preparation and filing of plats, the writing and interpreting of land descriptions, the technical essentials of land surveying and Register, November, 1975, No. 239

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subdivision of lands including practical problems requiring a knowledge of the basic theory and fundamental concepts of field astronomy, geometry of curves, topography and photogrammetry.

(7) WRITTEN EXAMINATIONS FOR DESIGNER OF ENGINEERING SYSTEMS. (a) *Examinations required*. An examination is required for each field and subfield thereunder, as designated in section A-E 1.20 (1), of these rules, in which an applicant seeks a designers' permit.

(b) *Place and time of examinations*. The examinations will be held at sites and on dates designated by the board.

(c) Grading of written examinations.

1. Experience ratings will not be weighed as part of the examinations.

2. A passing grade shall be at least 70%.

(d) Scope of written examinations. The examinations shall cover the application of the engineering technology related to the specific fields and subfields of engineering systems, as designated in section A-E 1.20 (1), of these rules.

History: 1-2-56; r. and recr. (3); am. (5) (e) 3., Register, February, 1961, No. 62, eff. 3-1-61; cr. (6), Register, August, 1965, No. 116, eff. 11-1-65; r. and recr. (3) (a), Register, November, 1966, No. 131, eff. 12-1-66; r. and recr. (4) (d), eff. 7-1-67; and r. and recr. (6), eff. 8-1-67; Register, April, 1967, No. 136; am. (5) (d) 2, (5) (f) 2 and (6) (a) 2, Register, July, 1968, No. 151, eff. 8-1-68; r. and recr. (5) (b) and (c) and (6) (b) and (c), Register, February, 1969, No. 158, eff. 3-1-69; am. (3), (6) (a) 2, and (7), Register, January, 1971, No. 181, eff. 2-1-71; r. and recr. (5), Register, September, 1971, No. 189, eff. 10-1-71; reprinted, Register, October, 1971, No. 190 to correct error; cr. (3), Register, May, 1972, No. 197, eff. 6-1-72; cr. (7), Register, December, 1972, No. 204, eff. 1-1-73; (4) (a), r. and recr. (4) (d), Register, March, 1973, No. 207, eff. 4-1-73; am. (4) (d) 1., Register, December, 1973, 1973, No. 216, eff. 1-1-74; r. and recr. (6) (a), (d) and (e), Register, July, 1974, No. 223, eff. 8-1-74; cr. (4) (e) and (f), Register, October, 1974, No. 226, eff. 11-1-74; am. (5) (d) 2, Register, November, 1975, No. 239, eff. 12-1-75.

A-E 1.18 Educational requirements for land surveyors. To meet the educational requirements of Wis. Stat. section 443.02(3) (a) 1. requiring ". . . a course in land surveying of not less than 2 years duration approved by the section . . ." an applicant for registration as a land surveyor must have satisfactorily completed at least 60 semester credits in a civil engineering or land surveying curricula including no less than 12 semester credits in land surveying subjects.

History: Cr. Register, July, 1975, No. 235, eff. 8-1-75.

Register, November, 1975, No. 239