COUNCIL OF ARCHITECTURE

PROFESSIONAL EXAMINATION

REGULATIONS 2010

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(In exercise of the powers conferred by subsection 1 read with clause (h) of subsection 2 of section 45 of the Architects Act 1972 (20 of 1972) the Council of Architecture with the approval of Central Government hereby makes the following regulations namely)

1. Short title and Commencement

These regulations may be called the Council of Architecture Professional Examination Regulations, 2010.

They shall come into force on the date of their publication in the Official Gazette.

2. Definitions

In these regulations, unless the context otherwise requires :-

1. "Act" means the Architects Act, 1972 (20 of 1972).

2. "COA" means Council of Architecture established under the Architects Act 1972.

3. "PE" means Professional Examination.

4. "PE Candidate" means a candidate who is for the time being registered for appearing in the Professional Examination to be conducted by the COA.

5. "Recognised Institution" means colleges/departments/schools of Architecture in India imparting instructions leading to recognized qualifications.

6. "Senior Architect." means an Architect who is registered with the Council of Architecture for a continuous period of at least 10 years.

3. Objective

The objective of the Professional Examination is to ensure that a Candidate applying for registration as an Architect with the COA has undergone Architectural Education as prescribed and a comprehensive practical Training programme to acquire core competencies in the various areas of architectural practice and reinforce his or her discipline, integrity, judgement, skills, knowledge and quest for learning so that after having passed the examination he or she is able to become a registered Architect in India and able to exercise his or her professional skills, in addition to carrying his or her duty and responsibilities professionally.

4. Frequency

PE Candidate may appear for the Professional Examination any time of the year by seeking prior appointment for the Examination from COA. The date of the examination and the examination centre will be allotted to the Candidate based on the availability by COA.

5. Registration as COA Professional Examination candidate

1. No candidate shall be registered as COA Professional Examination candidate unless he/she has obtained any of the qualifications mentioned in schedule-A from a recognised Institution.

2. He/she shall be required to make his/her application in prescribed form together with submission of all relevant documents showing proof of the qualification acquired from a recognised Institution and registration fee which may be prescribed by the COA.

6. Practical experience

1. PE Candidates must ensure that they have sufficient practical experience in architectural practice for not less than 12 months out of which a continuous period of at least 6 months must be in India under the supervision of a Senior Architect.

2. Upon being interned, the PE Candidate shall submit a letter from his or her Senior Architect confirming his/her internship in prescribed form. COA must be informed about any change in the internship together with new letter of confirmation from Senior Architect within one month of the said change.

3. The PE Candidate is required to ensure that the quarterly reports in prescribed format endorsed by Senior Architect are submitted to COA on a quarterly basis by the following dates: 31 January, 30 April, 31 July and 31 October.

7. Recording of practical experience

1. Log book

PE Candidates applying to appear for the Professional Examination shall maintain and submit a log book in prescribed format which shall include details of the duration and a description of the practical experience covering the range and scope of professional training during the 12-month period. Log books must be endorsed by the Senior Architect.

2. Professional case study/thesis project

PE Candidates shall submit a Professional Case Study/Thesis Project in such form as prescribed by COA. The purpose of the Professional Case Study /Thesis Project is to enable the PE Candidates to gain experience in terms of an overview of professional practice, to demonstrate ability to investigate a project and to formulate a report on its background from inception to its present state including the ability to assess his/her experience with a critical thinking approach.

3. The choice of the project for the Professional Case Study/Thesis Project shall be made with the approval of Senior Architect. The Professional Case Study/Thesis Project shall be any of the following categories

Suggested categories for professional case study	
Category 1:	a completed building
Category 2:	a substantial section of a completed or partially completed complex of buildings. (For example the shopping mall of an office complex or the residential section of, say, a hospital or university).
Category 3:	Graduation thesis project revalidated based on practical experience

4. The Professional Case Study/Thesis Project is a document that is intended to be confidential between the PE Candidate, the Examiners and the Senior Architects and must not be published without permission from COA.

8. **Application for Professional Examination**

1. No Candidate will be allowed to appear for the Professional Examination unless he/she has completed 12 months as registered PE Candidate up to the date of submission of the Professional Case Study/Thesis Project and the Log Book.

2. Any application to appear for the Professional Examination must be made in prescribed form together with examination fees which may be prescribed by the COA.

9. **The Professional Examination** shall have following components

PAPER 1 –Architecture and Technology

PAPER 2 - professional practice

PAPER 3 – General.

Oral interview examination

The Oral Interview Examination will be conducted only after the PE Candidate has passed his or her three Examination Papers. The PE Candidate will be required to attend a minimum half-hour interview conducted in the presence of a minimum of three Examiners, based on the Professional case study, logbook professional practice, working and technical knowledge, contracts and core competencies

10. Syllabus for the Professional Examination

1. The COA shall prescribe the syllabus for the Professional Examination and rules for conducting the Professional Examination and shall revise them at least once in every five years.

2. There shall no exemption from any examinations.

3. The pass percentage shall not be less than 45% in each subject and shall not be less than 50% in the aggregate.

4. Only on passing all the four components of the Professional Examination the PE Candidate shall be eligible for registration as an Architect with the COA.

Draft Syllabus for Professional Examination

PAPER 1 –Architecture and Technology

Knowledge of various structural systems and methods of construction and detailing of buildings of medium complexity using natural and manmade materials including foundation, walls, roofs, staircase, joinery and finishes, culminating in the capacity to integrate the knowledge acquired to architectural design exercise for making working drawings for contemporary buildings. Study of advanced building construction methods and innovative architectural detailing with new materials such as plastics, metals, synthetic boards, glass, composite panels etc,

Understanding the structural concepts and behavior of structural elements, like columns, beams, frames, footings, slabs, walls in concrete, steel and timber.

Understanding of complex building structures like domes, shells, retaining walls etc.

Study of structural systems like Bulk active structures, Form active structures, Vector active structures, Surface active structures, Cable structures, Arches, Vaults and Domes, Shells, Membrane structures, Pneumatic structures, Folded plates, Pre stressed concrete, space frames etc.

Study of and design and detailing for water supply, drainage, sewage disposal, garbage disposal, electrification, illumination, air conditioning, fire hazard protection, acoustical treatment, rainwater harvesting etc. in buildings and building premises, disaster management systems, intelligent energy conservation systems, electronic security and surveillance systems for buildings Study of advanced building services like HVAC, water supply and disposal, electrical, acoustical, lighting related to complex building situations like high-rise, complexes, cities etc

Exposure to building construction practices on site of various items of work from foundation to roof and finishes, Market survey for different building materials

Knowledge of properties and behavior of both natural and manmade building materials such as bricks, stones, metals, timber, steel and finishing materials in contemporary buildings. Effects of sun, rain, wind and other climatic and environmental conditions on various building materials and built environment. Understanding of various survey and leveling instruments, carrying out surveys of land of medium complexity and preparation of survey plans.

System and Sub-systems in buildings, analysis of sub-systems and relationship and sub-system. Building systems in different building typologies, Optimizations and sub-system

Importance of modular coordination in contemporary design and construction and its application in building industry

PAPER 2 - professional practice

Architects Act 1972, Role of COA, IIA and UIA
Systems of taking out quantities and estimating for all trades involved in construction of medium complexity, writing specifications for materials and various items of work
Study of office practices, Office administration, Accounting, Building Bye-laws, Tendering, Contracts and Arbitration, Valuation, Professional conduct and ethics, Architectural Competitions, Implementing a building contract.
Study of building control Standards, bye laws and codes of practices prevalent in different development authorities and municipalities in India.

PAPER 3 – a. General.

Study of evolution of various styles of architecture and methods of construction and influence of art and culture on architecture through the ages in the world, with emphasis on architecture of the Indian Sub continent and the region in which the institution is located, study of Indian culture related to architectural design
Research in Architecture, Scientific methods with special emphasis on architectural research, Presentation methodologies, Evaluation, Report writing.
Understanding of Landscape elements like trees, shrubs, plants, water, rocks and development of landscape planning and application in architectural design.
Understanding of Climate and its impact on architectural design, fundamentals of climatology and environmental studies.
Man and nature, Ecology, Historical background, Environmental impact assessment, National environmental policy, Biodiversity, Contemporary landscape design, Site-structure relationship Case studies.
Sustainability- Principles and methods, Energy conscious design ecological balance conservation of natural resources, Solar passive architecture, Re-cycling.
Use of energy in buildings, Conserving energy, Solar passive and solar active systems, wind energy, Biomass energy, Re-cycling.
Control systems for various buildings services, Integrated building management system, Environmental factors effecting human habitat such as climate, environmental pollutions, environmental degradation, green cover etc. at the micro and macro scales.
Study of sociology, economics and culture, as applicable for design of human settlements
Man and environment: Biological and behavioral responses to human settlements; Design for living, natural and built-environment, Vernacular architecture.
Housing survey and methodologies. Factors effecting housings. Housing Demand, Policies, Slums, Typologies, Finance, Agencies etc. Housing case studies. Post Occupancy Evaluation.
Evolution of settlement design, Classification of settlements, Planning methodologies, Contribution of prominent planners, Urban planning policies, Urban renewal schemes and methodologies, Regional planning principles and methodologies, Constraints and factors of consideration for regional plans.
Human settlements during ancient, medieval and modern periods in India, Europe and other parts of the world.

History and theory of conservation, Philosophy of conservation, Values and Ethics, Cultural heritage

Oral interview examination

production of the project programme, making feasibility studies with considerations to planning requirements, site and environmental analysis, economics and market situation, production of schematic designs, design development, production of building drawings, details and measured drawings, understanding of various building and engineering systems to enable the selection and integration into the design including taking into consideration of the mechanical and electrical services, understanding of building cost analysis, knowledge of building codes, codes of practice, Standards' codes and various performance-based regulations and their compliance, and finally, various submission procedures.

Contract Administration and Project Management which cover the understanding of the purpose of the Conditions of Building Contract and Sub-Contract, and understanding each and every clause, the understanding and usage of Specifications to establish quality assurance, contract documentation, tendering procedure, evaluation of tenders and award of tender, conducting consultants' meetings and site meetings, administration of the building contract and involving in the creation and maintenance of a systematic and comprehensive record of the project.

Office Administration and Management which involves learning about the various administrative duties and systems of an architect's office, and the administration of the office's resources to support the goals or objectives of the firm.

Schedule A

1. Bachelor Degree of Architecture awarded by Indian Universities established by an Act of the Central or State Legislature.

2. National Diploma (Formally All India Diploma) in Architecture awarded by the All India Council fo Technical Education.

3. Degree of Bachelor of Architecture (B. Arch.) awarded by the Indian Institute of Technology, Kharagpur.

4. Five-Year full-time Diploma in Architecture of the Sir J.J. School of Art, Bombay, awarded after 1941.

5. Diploma in Architecture awarded by the State Board of Technical Education and Training of the Government of Andhra Pradesh with effect from 1960 (for the students trained at the Government College of Arts and Architecture, Hyderabad).

6. Diploma in Architecture awarded by the Government College of Arts and Architecture, Hyderabad till 1959, subject to the condition that the candidates concerned have subsequently passed a special final examination in Architecture held by the State Board of Technical Education, Andhra Pradesh and obtained a special certificate.

7. Diploma in Architecture awarded by the University of Nagpur with effect from 1965 to the students trained at the Government Polytechnic, Nagpur.

8. Government Diploma in Architecture awarded by the Government of Maharashtra (or the former Government of Bombay).

9. Diploma in Architecture of Kalabhavan Technical Institute, Baroda.

10. Diploma in Architecture awarded by the School of Architecture, Ahmedabad.

11. Membership of the Indian Institute of Architects.

12. Diploma in Architecture awarded by the University of Nagpur during the period 1962 to 1964.

13. Bachelor Degree in Architecture awarded by the School of Planning of Architecture, New Delhi (an Institution deemed to be a University) with effect from 3-12-1979.

14. Diploma in Architecture awarded by the Centre for Environment Planning and Technology (CEPT), Ahmedabad, with effect from 16-10-1980.

15. Diploma in Architecture awarded by the Institute of Environment Design to the students trained at the D.C. Patel School of Architecture, Vallabh Vidya Nagar (Gujarat).

16. Five-Year Diploma in Architecture awarded by the Sushant School of Art and Architecture, Gurgaon (Haryana) with effect from 1.6.1994 to the students trained at the Sushant School of

Art and Architecture, Gurgaon (Haryana).

17. Five-Year Diploma in Architecture awarded by the TVB School of Habitat Studies, Sector-D, Vasant Kunj, New Delhi with effect from 1.8.1995 to the students trained at the TVB School of Habitat Studies, Sector-D, Vasant Kunj, New Delhi.

18 Bachelor Degree of Architecture awarded by every Institution for higher education declared to be a university under Section 3 of the University Grants Commission Act, 1956 (3 of 1956)

AUSTRALIA

1. Degree of Bachelor of Architecture awarded by the University of Adelaide.
2. Degree of Bachelor of Architecture awarded by the University of Melbourne.
3. Degree of Bachelor of Architecture awarded by the University of New South Wales, Kensington.

GERMANY

4. Diploma-Ingeniur awarded by the Technical Universities in Federal Republic of Germany in Architecture.

SWITZERLAND

5. Doctorate of Technical Sciences in Architecture awarded by Swiss Federal Institute of Technology, Zurich (Recognised at par with Ph.D. degree of the Indian Universities).

U.K.

6. Degree of Architecture awarded by the Universities of Cambridge, Durham, Edinburgh, Glassgow, Liverpool, London, Manchester, Sheffield, Wales.
   The Diploma of the Architectural Association, London.
7. Associateship Examination of the Royal Institute of British Architects, London (A.R.I.B.A. Examination)/Corporate Membership of the Royal Institute of British Architects, London).

UKRAINE

7(a) Diploma/Master of Science in Architecture awarded by Odessa State Academy of Civil

8. (a) Bachelors Degree in Architecture awarded by the American Universities/Institutions, the curricula of which are accredited to the National Architectural Acerediting Board (USA)

1. University of Arizona, Tucson, Arizona.
2. Arizona State University, Tempe, Arizona.
3. University of Arkansas, Fayetteville, Arkansas-72701.
4. Auburn University, Auburn, Alabama.

5. California Polytechnic State University, San Luis, Obsro California.
6. Carnegie-Mellon University, Pittsburgh, Pennsylvania-15213.
7. Case Western Reserve University, University Circle, Cleveland, Ohio.
8. The Catholoic University of America, Washington, D.C.
9. University of Cincinnati, Cincinnati, Ohio-45221.
10. City College, The City University of New York, New York, N.Y.
11. Clemson University, Clemson, South Carolina-29631.
12. University of Colorado, Boulder, Colorado.
13. Columbia University, Momingside Heights, New York, N.Y. 10027.
14. The Cooper Union for the Advancement of Science and Art, Cooper Square, New York, N.Y.
15. Cornell University, Ithaca, New York.
16. Detroit Institute of Technology, Detroit, Michigan.
17. University of Florida, Gainesville, Florida-32601.
18. Georgia Institute of Technology, Atlanta, Georgia-30332.
19. Harvard University, Cambridge, Massachusetts-02138.
20. University of Houston, Texas.
21. Howard University, Washington, D.C. 20001.
22. Illinois Institute of Technology, Chicago, Chicogo Illinois-60616.
23. The University of Chicago, Chicago Illinios.
24. The University of Illinios, Urbana, Illinios-60801.
25. Iowa State University of Science and Technology, Ames, Iowa 50010.
26. Kansas State University of Agriculture and Applied Science, Manhattan, Kansas-66502.
27. University of Kansas, Lawrence, Kansas-66044.
28. Kent State University, Kent, Ohio.
29. University of Kentucky, Lexington, Kentucky-40506.
30. Louisiana State University and A.M.College, Baton Rouge, Lousiana.
31. Massachusetts Institute of Technology, Cambridge, Massachusetts-02139.
32. Miami University, Oxford, Ohio-45056.
33. The University of Michigan, Ann Arbor, Michigan-48104.
34. University of Minnesota, Minneapolis, Minnesota.
35. Montana State University, Bozeman, Montana.
36. University of Nebraska, Lincolon, Nebraska.
37. North Carolina State University at Raleigh, Raleigh, North Carolina.
38. University of Notre Dame, Notre Dame, Indiana.
39. Ohio State University, Columbus, Ohio-43200.
40. Oklahoma State University, Stillwater, Oklahoma.
41. University of Oklahoma, Norman, Oklahoma.
42. University of Oregon, Eugene and Portland, Oregon-97403.
43. The Pennsylvania State University, University Park, Pennsylvania-16802.
44. Pratt Institute, Brooklyn, New York-11205.
45. Reneseelayer Polytechnic Institute, Troy, New York.
46. Rhode Island School of Design, Providence, Rhode Island.
47. Rice University, Houston, Texas-770001.
48. University of Southern California, Los Angeles, California.
49. Syracuse University, Syracuse, New York-13210.
50. The Texas A & M University, College Station, Texas.

51. Texas Tech. University, Lubbock, Texas.
52. Stephen F. Austin State University, Nagogdoches, Texas.
53. Tulane University of Louisiana, New Orleans, Louisiana.
54. University of Utah, Salt Lake City, Utah.
55. University of Virgina, Charlottesville, Virginia.
56. Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
57. Yale University, New Haven, Connecticut.
58. Ball State University, Muncie, Indiana.
59. Hampton Institute, Hampton, Virginia.
60. University of Hawaii, Honolulu, Hawaii-96822.
61. University of Idaho, Moscow, Idaho.
62. North Dakota State University, Fargo, North Dakota.
63. University of Southwestern Louisiana, Lafayette, Louisiana.
64. University of Tennessee System, Knoxville, Tennessee-37916.
65. Tuskegee Institute, Alabama.
66. Washington State University, Pullman, Washington.
67. Boston Architectural Centre, Boston, Massachessets.

8.(b) Graduate (Master's and Doctor's) Degree in Architecture awarded by Accredited American Universities/Institutions.

1. University of California, Berkeley Campus, California.
2. The Catholic University of America, Washington D.C.
3. City College, The City University of New York, New York, N.Y.
4. Clemson University, Clemson, South Carolina.
5. Cornell University, Ithaca, New York.
6. University of Florida, Gainesville, Florida.
7. Harvard University, Cambridge, Massachusetts.
8. Howard University, Washington D.C.
9. University of Illinois, Urbana, Illinois.
10. Iowa State University of Science and Technology, Ames, Iowa
11. Kansas State University of Agriculture and Applied Sciences, Manhattan, Kansas.
12. University of Kansas, Lawrence, Kansas.
13. Kent State University, Kent, Ohio.
14. Massachusetts Institute of Technology, Cambridge, Massachusetts.
15. The University of Michigan, Ann Arbor, Michigan.
16. University of Minnesota, Minneapolis, Minnesota.
17. University of Nebraska, Lincolon, Nebraska.
18. The University of New Mexico, Albuquerque, New Mexico.
19. Oklahoma State University, Stillwater, Oklahoma.
20. University of Oklahoma, Norman, Oklahoma.
21. University of Oregon, Eugene and Portland, Oregon.
22. University of Pennsylvania, Philadelphia, Pennsylvania.
23. Pratt Institute, Brooklyn New York.
24. Princeton University, Princeton, New Jersey-08540.
25. Renseelaer Polytechnic Institute, Troy, N.Y.

26. Rice University, Houston, Texas.
27. University of Southern California, Los Angeles, California.
28. Syracuse University, Syracuse, New York.
29. The Texas A & M University, College Station, Texas.
30. University of Utah, Slat Lake City, Utah.
31. Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
32. Washington University, Saint Louis, Missouri-63130.
33. The University of Washington, Seattle, Washington.
34. Yale University, New Haven, Connecticut.
35. University of Hawaii, Honolulu, Hawaii.
36. University of Idaho, Moscow, Idaho.

9. Certificate of Fellowship awarded by the Frank Lloyd Wright Foundation, USA.

U.S.S.R

9(a). Diploma/Master of Science in Architecture awarded by Tajik Technical University, Dushanbe, an accredited University in Tajikistan, U.S.S.R.[1]

YUGOSLAVIA

10. Doctorate Degree in Architecture awarded by the Zagreb University, Yugoslavia.

UZBEKISTAN

11. Diploma / Master of Science in Architecture awarded by Tashkent Institute of Architecture & Civil Engineering, Uzbekistan.[2]