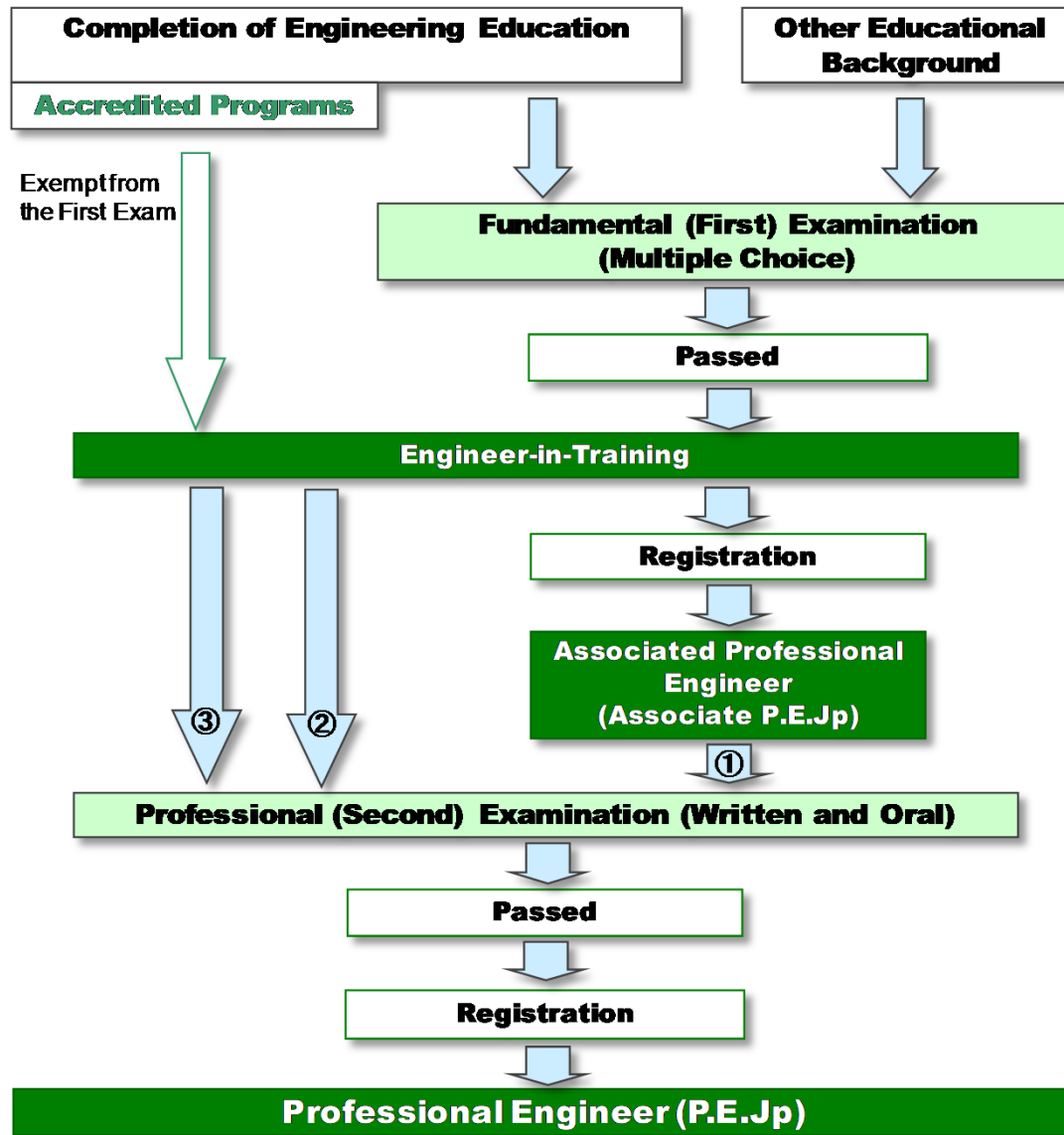

P.E.Jp Examination

July. 2018

The Institution of Professional Engineers, Japan
(IPEJ)

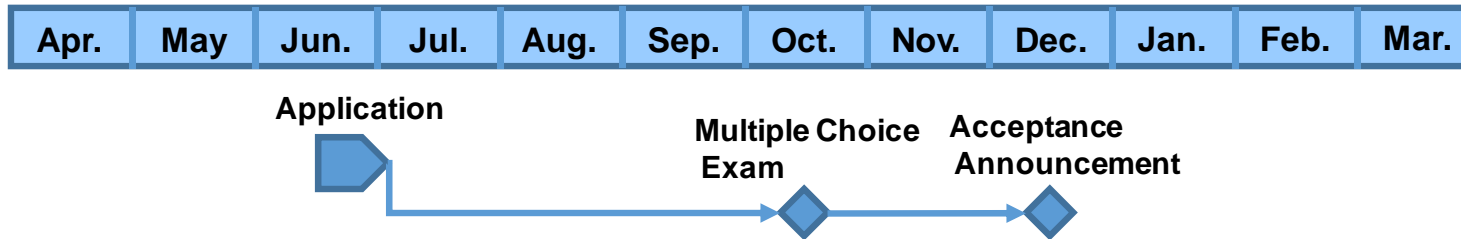
Overview



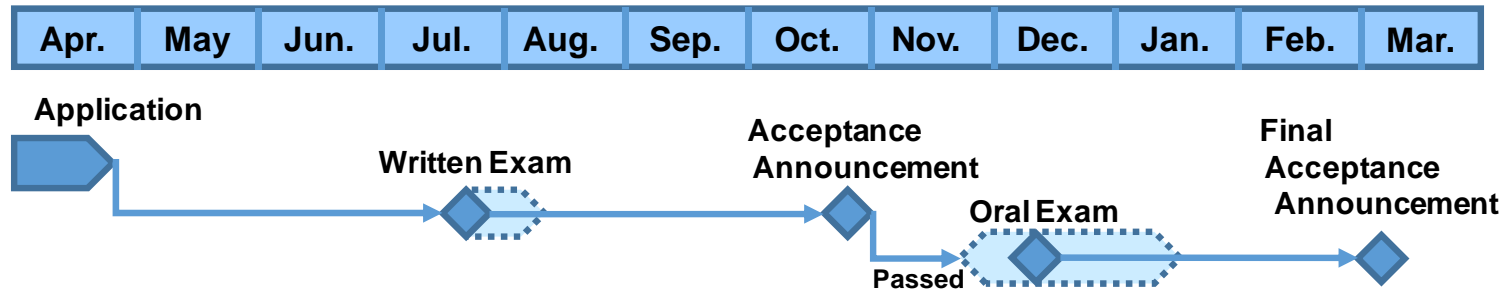
P.E.Jp Exams (First and Second stage)

Japanese P.E. Exams (First and Second stage) are held once a year respectively, only in Japanese language.

Fundamental (First) Examination (Multiple Choice)

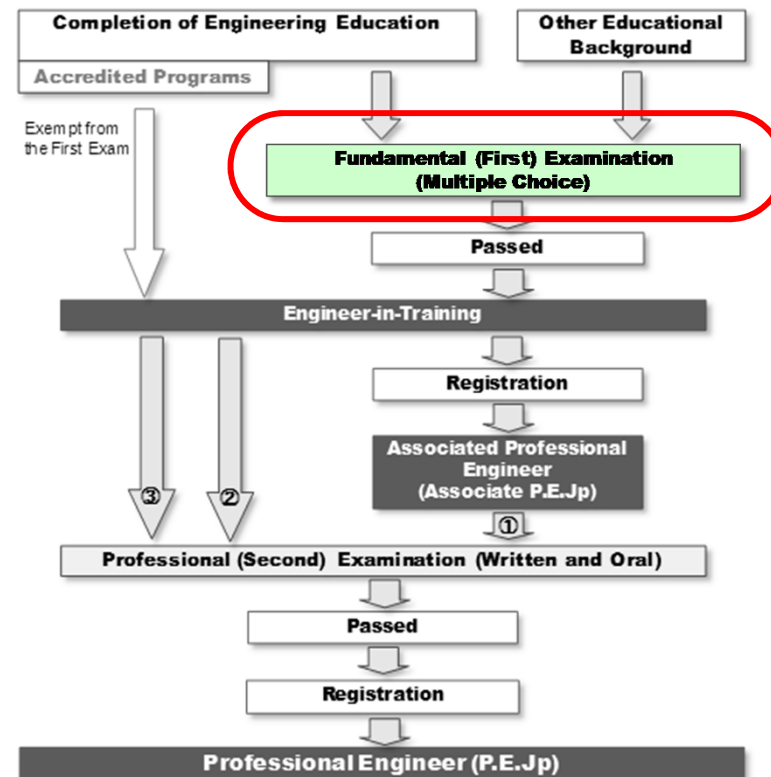


Professional (Second) Examination (Written & Oral)



First Stage (Fundamental) P.E. Exam

It is a written exam with multiple choice questions.
Any person is able to take the First stage P.E. Exam without any restrictions on age, engineering career, nationality and practical engineering experience.



First Stage (Fundamental) P.E. Exam (Multiple Choice)

| Subjects | Contents | Methods | Time |
|-------------------------|--|---|--------|
| I. Basic | General basic knowledge on science and technology. Components include design, information technology, logics, analyses, materials, chemistry, biotechnology, environment and energy. | A multiple choice style Select 15 out of 30 questions | 1hour |
| II. Professional ethics | Basic knowledge and preparedness to observe obligations of professional engineers given in Chapter 4 of the PE Act, etc. | A multiple choice style 15 questions | 1hour |
| III. Specialized | Basic and specialized knowledge of one discipline that the applicant has selected, in advance, out of 20 technical disciplines | A multiple choice style Select 25 out of 35 questions. | 2hours |

First Stage (Fundamental) P.E. Exam (Written Exam)

Questions of the First Stage P.E. Exam are made to judge whether an applicant has attributes equivalent to those required for a graduate of an accredited or recognized university engineering course.

For solving test questions, the use of a slide rule and an electronic calculator (without any programming function) is permitted, but the use of any notebooks and reference books are prohibited.

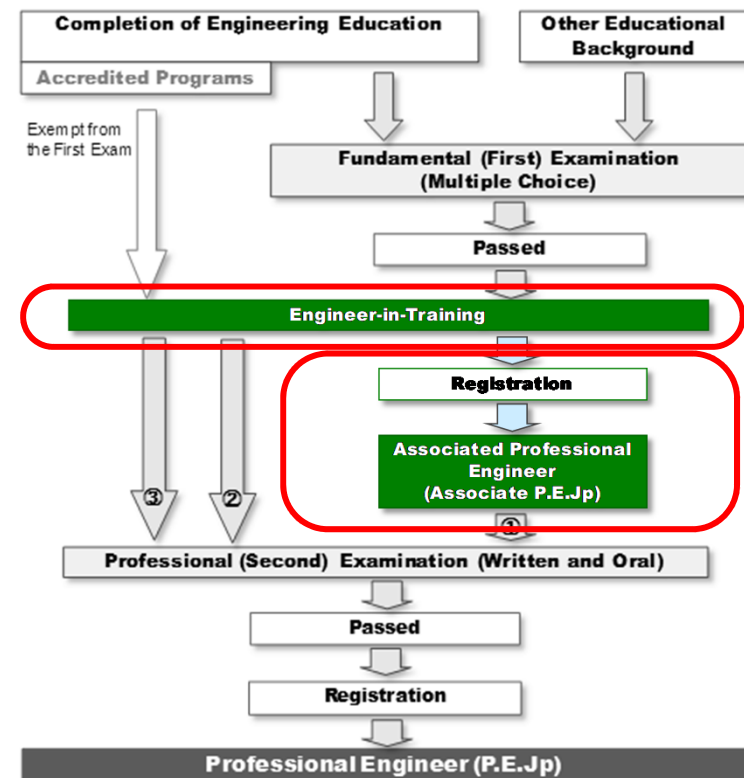


“Engineer-in-Training”

A person who has passed First Stage P.E. Exam is generally called as an “Engineer-in-Training”. (This is not an official name.)

"Associate Professional Engineer" is defined as a person who has obtained a registration and assists a Professional Engineer with respect to the practice, using the title of Associate Professional Engineer in order to acquire the necessary skill to become a Professional Engineer.

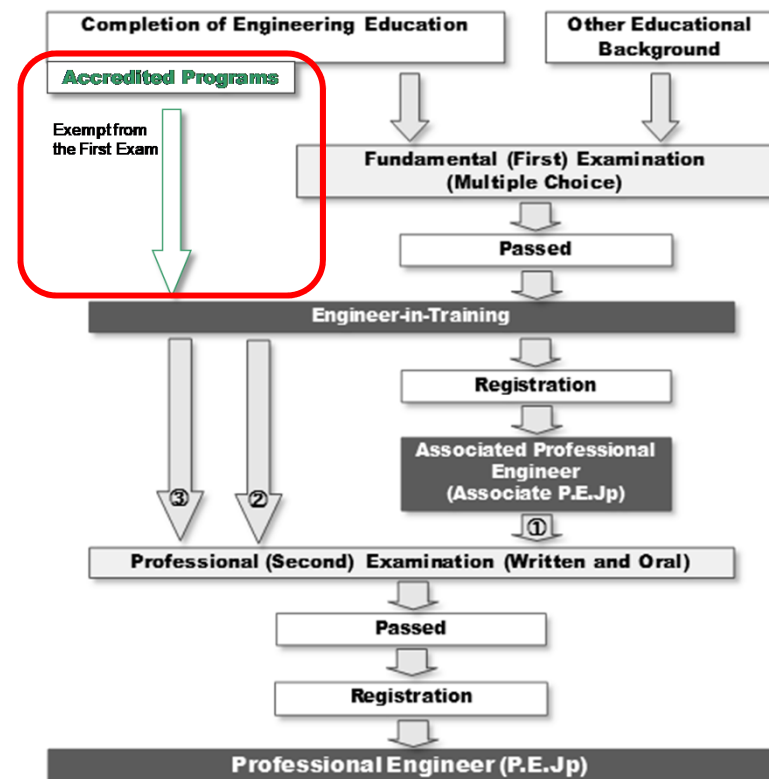
To sit for the Second Stage P.E. Exam, registration as an Associate Professional Engineer is not mandatory.



Japan Accreditation Board for Engineering Education (JABEE)

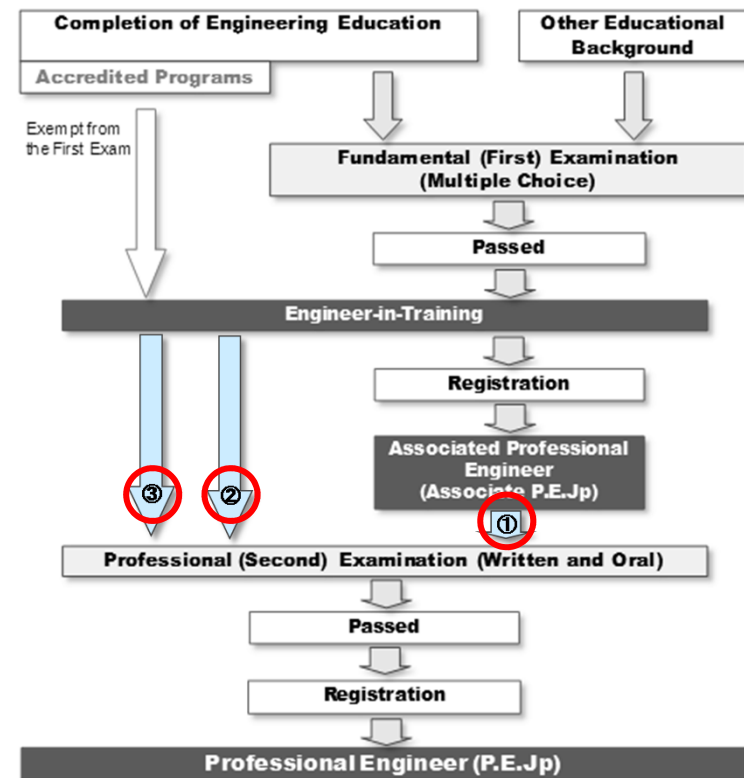
A person who completed a program concerning science and technology, at educational institution such as university and the like and the said completion is designated by the Minister of Education, Culture, Sports, Science and Technology as being equivalent to passing First Stage P.E. Exam, shall be qualified to become an Associated Professional Engineer.

This special provision applies for the programs accredited by the Japan Accreditation Board for Engineering Education (JABEE). The Ministry through official gazette notifies those accredited programs.



Requirements for application for Second Stage P. E. Exam

- ① to be registered as an Associate Professional Engineer and have assisted a Professional Engineer for a total period of four (4) or longer years.
- ② to have engaged in practical experience for a period of four (4) or longer years under supervision of experienced engineer.
- ③ to have engaged in practical experience for a total period of seven (7) or longer years.



Second Stage P.E. Exam

(Written Exam)

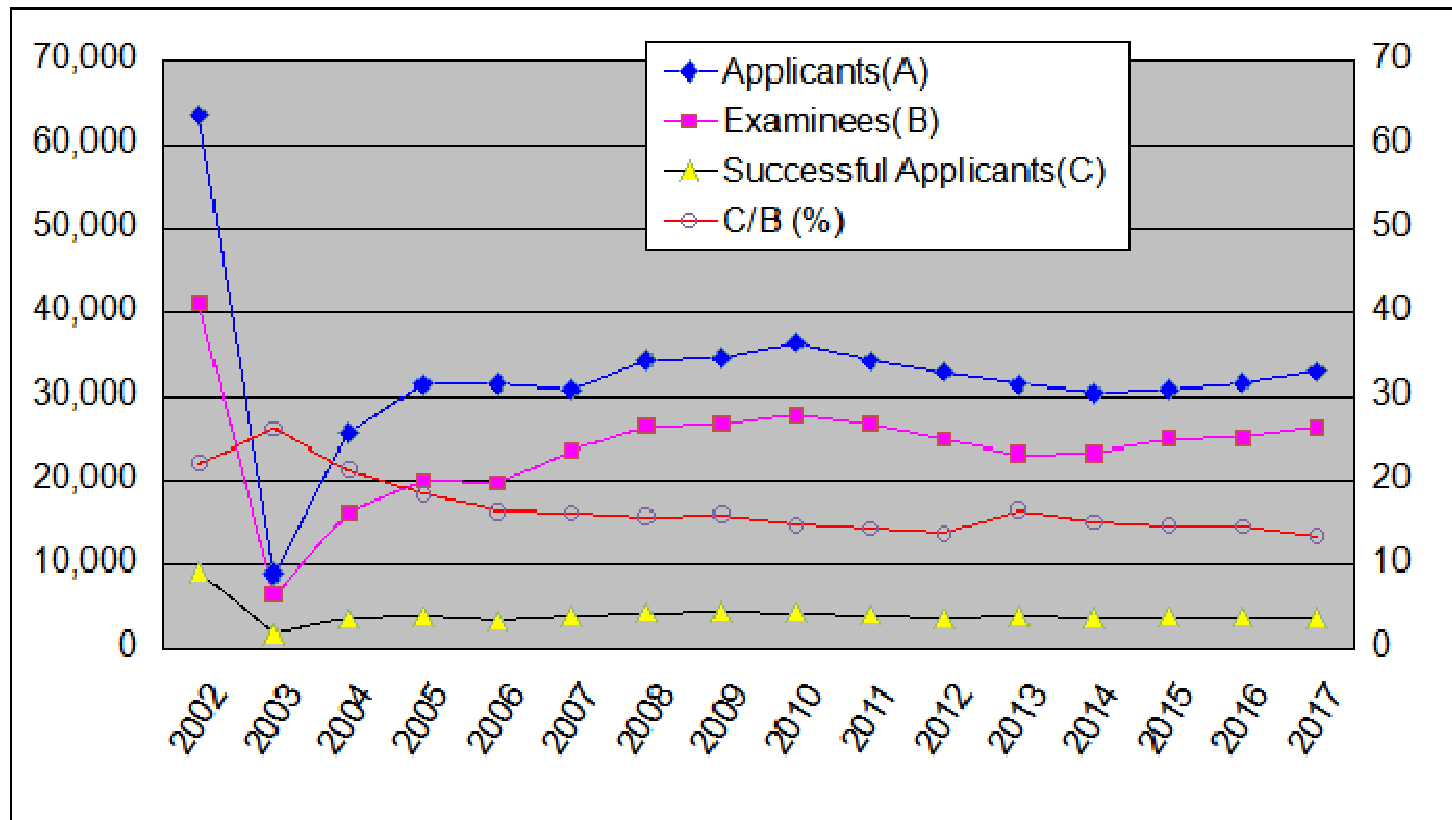
| Subjects | Contents | Methods | Time |
|----------------|---|---|-----------------|
| I .Compulsory | Questions to assess an applicant's professional knowledge necessary for works of the overall range of selected technical discipline | A multiple choice style Select 15 out of 20 questions | 1 and 1/2 hours |
| II. Optional | Problems to assess an applicant's professional competence (knowledge and skills) necessary for works of the selected subject | Thesis in Japanese not exceeding 2,400 characters Select 2 themes out of the given choices | 2 hours |
| III . Optional | Problem to assess an applicant's designing ability necessary for the problem solution on the selected subject | Thesis in Japanese not exceeding 1,800 characters Select 1 theme out of the given choices | 2 hours |

(Oral Exam)

| Areas | Time |
|--|---------------|
| I. Applicant's engineering experience and professional competence | 20-30 minutes |
| II. Ethical eligibility and general knowledge necessary for being a P.E.Jp | |

Second Stage P.E. Exam

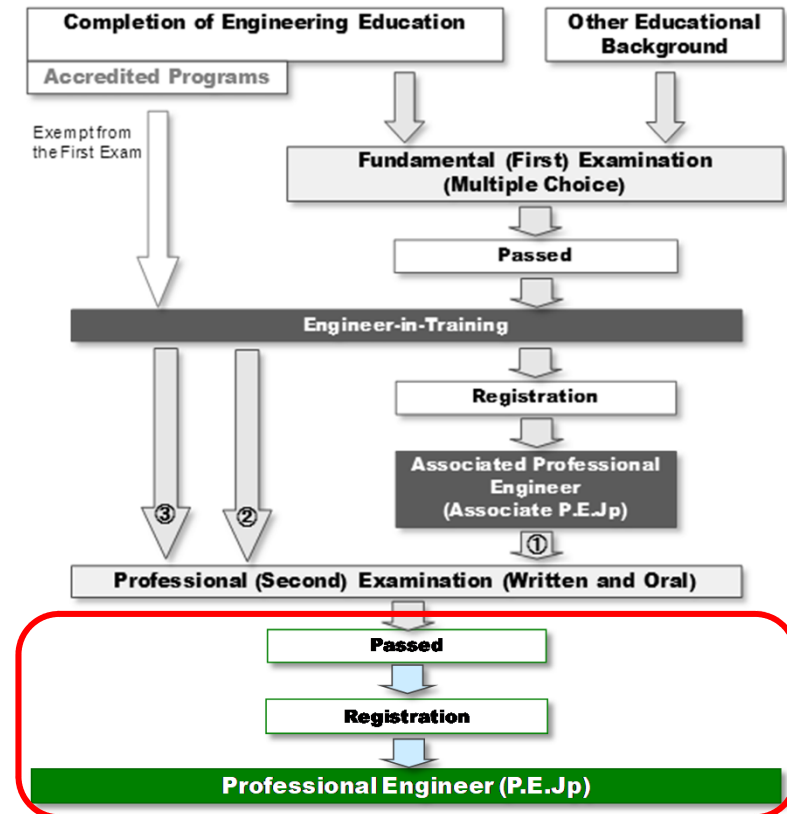
Number of Applicants and Successful Applicants
(Second Stage P.E. Exam)



Professional Engineer

A person who has passed Second Stage Professional Engineer Examination is qualified to become a Professional Engineer.

Application documents to be submitted to IPEJ for P.E.Jp registration



Technical Disciplines and Subjects for the Second Step Examination of P.E. Exam

1. Mechanical Engineering

Mechanical Design Engineering

Strength of Materials

Mechanical Dynamics & Control

Power Engineering

Thermal Engineering

Fluid Engineering

Processing, Factory Automation & Industrial Machinery

Traffic, Logistics Machinery & Construction Machinery

Robot

Information Precision Equipment

Technical Disciplines and Subjects for the Second Step Examination of P.E. Exam

2. Marine & Ocean

Naval Architecture
Offshore Engineering
Marine Engineering

3. Aerospace

Aerospace Systems
Aerospace Navigation
Space Environment Utilization

4. Electrical & Electronics Engineering

Power Generation, Transmission, Distribution & Substation
Electric Power Applications
Electronics Applications
Information & Communication
Electrical Facilities

Technical Disciplines and Subjects for the Second Step Examination of P.E. Exam

5. Chemistry

- Ceramics & Inorganic Chemical Products
- Organic Chemical Products
- Fuel & Lubricating Oil
- Polymer Products
- Chemical Engineering

6. Textiles

- Fiber Spinning & Texturing
- Yarn Spinning & Fabric Manufacturing
- Finishing & Textile Processing
- Sewing, Manufacturing & Evaluation of Textile Products

Technical Disciplines and Subjects for the Second Step Examination of P.E. Exam

7. Metals

- Iron & Steel Manufacturing System
- Nonferrous Metals Manufacturing System
- Metallic Materials
- Metal Surface Treatment
- Metal Working

8. Mining

- Development & Production of Solid Resources
- Development & Production of Liquid Resources
- Resources Recycling & Environmental Conservation

Technical Disciplines and Subjects for the Second Step Examination of P.E. Exam

9. Civil Engineering

Soil Mechanics & Foundation

Materials & Structures

Urban & Regional Planning

River, Coastal & Ocean Engineering

Port, Harbor & Airport Engineering

Electric Power Civil Engineering

Road Engineering

Railway Engineering

Tunnel Engineering

Construction Planning, Management & Cost Estimates

Environmental Assessment & Management for Construction

Technical Disciplines and Subjects for the Second Step Examination of P.E. Exam

10. Water Supply & Sewerage

Water Supply & Industrial Water Supply
Sewerage
Water Resource Environment

11. Environmental Engineering

Air Quality Management
Water Quality Management
Waste Management
Air Conditioning
Building Utilities

Technical Disciplines and Subjects for the Second Step Examination of P.E. Exam

12. Agriculture

- Animal Industry
- Agricultural Chemistry
- Irrigation, Drainage & Rural Engineering
- Agriculture & Sericulture
- Rural Development Planning
- Rural Environment
- Plant Protection

13. Forest

- Forestry
- Forest Civil Engineering
- Forest Products
- Forest Environment

Technical Disciplines and Subjects for the Second Step Examination of P.E. Exam

14. Fisheries

Fisheries & Aquaculture
Fish Processing
Fisheries Civil Engineering
Aquatic Environment

15. Industrial Engineering

Production Management
Service Management
Logistics & Packaging Technology
Mathematical & Information technology
Financial Engineering

Technical Disciplines and Subjects for the Second Step Examination of P.E. Exam

16. Information Engineering

Computer Engineering

Software Engineering

Information Systems & Data Engineering

Information Network Engineering

17. Applied Science

Physics & Chemistry

Geophysics & Geochemistry

Geology

18. Biotechnology & Bioengineering

Biotechnology

Biochemical Engineering

Environmental Bioengineering

Technical Disciplines and Subjects for the Second Step Examination of P.E. Exam

19. Environment

Environmental Conservation Planning
Environmental Measurement
Nature Environment Conservation
Environmental Impact Assessment

20. Nuclear & Radiation

Nuclear Reactor System Design & Construction
Nuclear Reactor System Operation & Maintenance
Nuclear Fuel Cycle
Radiation Application
Radiation Protection

21. Engineering Management

Thank you !