

Senior Professional and Technical Examinations for Engineers—Exam Subjects for Candidates Granted a Partial Exemption (Table B)

No.	Exam Category	Exam Subjects
1.	Civil Engineer Exam	<ol style="list-style-type: none"> 1. Structural design (including design of reinforced concrete and steel structural design) 2. Geotechnics (including soil mechanics, foundation engineering and engineering geology) 3. Construction method (including civil engineering, architecture construction method and engineering material)
2.	Hydraulic Engineer Exam	<ol style="list-style-type: none"> 1. Hydrology 2. Water resources engineering and planning 3. Channel hydraulics
3.	Structural Engineer Exam	<ol style="list-style-type: none"> 1. Design of reinforced concrete and design of pre-stressed concrete 2. Steel structural design 3. Structural dynamics analysis and aseismatic design
4.	Geotechnical Engineer Exam	<ol style="list-style-type: none"> 1. Foundation engineering and design (including excavation engineering and related foundation structure design) 2. Hillside works (including soil and water conservation engineering) 3. Geotechnical engineering
5.	Survey Engineer Exam	<ol style="list-style-type: none"> 1. Geography information system 2. Least squares adjustment 3. Geodetic survey
6.	Environmental Engineer Exam	<ol style="list-style-type: none"> 1. Environmental chemistry and environmental microbiology 2. Waste disposal works 3. Air pollution and noise engineering
7.	Urban Planning Engineer Exam	<ol style="list-style-type: none"> 1. Land use and public facility projects 2. Regulations on urban and district plans 3. Urban traffic plan
8.	Mechanical Engineer Exam	<ol style="list-style-type: none"> 1. Fluid mechanics and fluid machinery 2. Mechanism and machine design 3. Machine building
9.	Refrigeration And	<ol style="list-style-type: none"> 1. Refrigerating engineering and design

No.	Exam Category	Exam Subjects
	Air-Conditioning Engineer Exam	<ol style="list-style-type: none"> 2. Air conditioning engineering and design 3. Automatic control for refrigeration and air-conditioning
10.	Naval Architecture Engineer Exam	<ol style="list-style-type: none"> 1. Shipbuilding design (including shipbuilding principles) 2. Marine engineering 3. Electrical engineering (including electric machinery)
11.	Electrical Engineer Exam	<ol style="list-style-type: none"> 1. Electronics (including power electronics) 2. Circuitry 3. Industrial power distribution
12.	Electric Engineer Exam	<ol style="list-style-type: none"> 1. Electronics 2. Electromagnetism and electromagnetic wave 3. Communication system
13.	Information Engineer Exam	<ol style="list-style-type: none"> 1. Data structure & database and data mining 2. Computer system 3. Network principles and applications
14.	Aeronautical Engineer Exam	<ol style="list-style-type: none"> 1. Aircraft engine 2. Introduction to aircraft structures 3. Flight mechanics (including automatic control and airplane performance)
15.	Chemical Engineer Exam	<ol style="list-style-type: none"> 1. Transport phenomena and unit operation 2. Biochemical thermodynamics 3. Chemical reaction engineering(or chemical engineering kinetics)
16.	Industrial Engineer Exam	<ol style="list-style-type: none"> 1. Operation research 2. Engineering statistics and quality management 3. Production management
17.	Industrial Safety Engineer Exam	<ol style="list-style-type: none"> 1. Regulations on labor safety and health 2. Industrial safety engineering 3. Human factors and ergonomics
18.	Occupational Hygienist Exam	<ol style="list-style-type: none"> 1. Hazard identification and introduction to occupational diseases 2. Workplace environmental control engineering 3. Workplace monitoring
19.	Textile Engineer Exam	<ol style="list-style-type: none"> 1. Study of textile materials (including Physical and chemical properties of textile fiber and synthetic fiber production) 2. Textile engineering (including weaving, knitting, and felt) 3. Textile finishing
20.	Food	<ol style="list-style-type: none"> 1. Food analysis and inspections

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	Technologist Exam	<ol style="list-style-type: none"> 2. Food processing 3. Food sanitation/safety and regulations
21.	Metallurgical Engineer Exam	<ol style="list-style-type: none"> 1. Metallurgy and thermodynamics 2. Physical metallurgy 3. Metalworking (including casting, forging, soldering, and heat treatment)
22.	Agronomist Exam	<ol style="list-style-type: none"> 1. Crop science 2. Crop physiology 3. Crop breeding
23.	Horticultural Technologist Exam	<ol style="list-style-type: none"> 1. Pomology 2. Olericulture 3. Study of flowers
24.	Forestry Technologist Exam	<ol style="list-style-type: none"> 1. Silviculture (including forest protection) 2. Forest regulation (including inductive statistics) 3. Forest ecology (including forest resources and conservation)
25.	Livestock Technologist Exam	<ol style="list-style-type: none"> 1. Livestock anatomy and physiology 2. Animal nutrition 3. Utilization of animal products (including meat processing and dairy product processing)
26.	Fishing Technologist Exam	<ol style="list-style-type: none"> 1. Fishing methodology 2. Study on fishing gear (including fishery instruments) 3. Fishing ground study
27.	Aquacultural Technologist Exam	<ol style="list-style-type: none"> 1. Introduction to fisheries 2. Aquaculture (including aquacultural engineering) 3. Aquaculture feeds and baits
28.	Soil And Water Conservation Engineer Exam	<ol style="list-style-type: none"> 1. Soil physics and erosion 2. Soil and water conservation engineering 3. Soil and water conservation planning (including regulations on water and soil conservation)
29.	Mining Engineer Exam	<ol style="list-style-type: none"> 1. Mine ground design and environmental maintenance 2. Geology and ore deposit 3. Mining engineering (including mine safety)
30.	Applied Geological Engineer Exam	<ol style="list-style-type: none"> 1. Geotechnics (including soil mechanics and rock mechanics) 2. Engineering geology (including hydrogeology) 3. Geological survey (including geophysical exploration)
31.	Mining Safety Engineer Exam	<ol style="list-style-type: none"> 1. Mine safety and sanitation regulations 2. Mining study

No.	Exam Category	Exam Subjects
		3. Mine ventilation and drainage
32.	Transportation Engineer Exam	1. Traffic engineering and design 2. Transportation planning 3. Traffic control
	Note	All subjects are tested in essay format.