



SOPEEC standardization of power engineer examinations committee

Comparison between Old and Revised First Class Syllabus

June 1, 2006

Paper	Old First Class	Revised First Class
Paper 1A1	<ul style="list-style-type: none"> Applied Mechanics, and ASME Codes Calculation Sections I and VIII 	Applied Thermo and Plant Cycles ^(note 1)
Paper 1A2	Thermodynamics	Principles of Applied and Fluid Mechanics ^(note 2)
Paper 1A3	<ul style="list-style-type: none"> Boilers, Control Instrumentation, and Piping 	Applied Engineering Technologies ^(note 3)
Paper 1A4	<ul style="list-style-type: none"> Fuels and Combustion Water Treatment, and Pumps 	Power Plant Operations ^(note 4)
Paper 1B1	<ul style="list-style-type: none"> Prime Movers, and Fire Prevention and Plant Safety 	Legislation and Codes for Industrial Equipment ^(note 5)
Paper 1B2	<ul style="list-style-type: none"> Metallurgy Testing of Materials Welding Power Plant Erection and Development, and Lubrication 	Safety, Loss, and Environmental Program Management ^(note 6)
Paper 1B3	<ul style="list-style-type: none"> Industrial Admin. Refrig. And Air Cond., and Types and Arrangements of Industrial plants. 	Inspection, Maintenance and Repair Practices ^(note 7)
Paper 1B4	<ul style="list-style-type: none"> Electrotechnology Compressors, and Nuclear Power Production 	Business and Workforce Management ^(note 8)

Note 1: Thermo is now the first paper. Combining all of the thermo calculations from the refrigeration, thermo and turbine papers.

Note 2: Applied Mechanics is now paper 2. No Code calculations here, moved down to its own slot.

Note 3: Applied Engineering Technologies is as follows:

- Metallurgy and metallography
- Corrosion
- Combustion
- Advanced water treatment chemistry

Note 4: Power Plant Operations.

- Energy Management practises
- Maximizing Power plant efficiency
- Power Plant construction practises
- Commissioning and de-commissioning practises
- Retrofitting

Note 5: Legislation and Codes: ASME Codes Section I, VIII, IX; CSA B51 & B52; API 510 & 570

Note 6: Safety, Loss and Environmental Program Management. New

Note 7: Inspection Maintenance and Repair Practises New

Note 8: Business and Workforce Management New