

SAMPLE QUESTIONS 4A (MULTIPLE CHOICE)

(NOTE: These questions are intended as representations of the style of questions that may appear on examinations, they are not intended as study material and, as such, may not be in line with any current examination syllabus)

Currently all the 4A SOPEEC examinations are delivered in a multiple-choice format. Examination candidates have 3.0 hours to answer 100 multiple choice questions. This works out to be 1.8 minutes per question.

To use your time wisely it is recommended that you read through the questions and answer only the questions for which the answer comes to you quickly. Leave other questions and calculation questions for later.

If an elevator travels vertically upward a distance of 30 m in one minute, the average velocity of the elevator is

- A. 0.5 m/s**
- B. 1 m/s
- C. 1.5 m/s
- D. 2 m/s

At 1,200 kPa, saturated steam has a temperature of

- A. 158.44°C
- B. 184.09°C
- C. 187.99°C**
- D. 191.64°C

The purpose of the all Canadian jurisdictional Boiler, Power Engineer or Operating Engineers Acts is to

- A. make rules for the ASME
- B. make rules for plant operators
- C. enforce rules for power engineers
- D. to ensure safe operation of the plant**

A fire can be extinguished by

- A. using fire-resisting materials only
- B. removing or cutting off the oxygen supply**
- C. installing an effective fire detection system
- D. removing or cutting off the electricity supply

Sound pressure level is expressed in

- A. psi
- B. kPi
- C. watts
- D. decibels**

Metals which will break rather than bend are said to be

- A. brittle**
- B. tough
- C. plastic
- D. malleable

Pipe fittings which are not clearly identified should be

- A. rejected**
- B. colour coded
- C. tested and used
- D. used only with water systems

Three resistors 40, 70, and 90 ohms are in series. What is the total equivalent resistance?

- A. 100 ohms
- B. 110 ohms
- C. 160 ohms
- D. 200 ohms**

A low-water fuel cutoff is fitted to a boiler to prevent

- A. shutting off the water when there is no fuel
- B. damage to the radial stays in the steam dome
- C. damage to the boiler from an overheated condition**
- D. minimizing damage due to burner over-firing condition

A power plant log book should

- A. not include information which is recorded elsewhere
- B. be maintained and signed by the chief engineer only
- C. record only start up and shut down dates of equipment
- D. record all important events which occur during a shift and be signed by the person in charge of the shift**

There are two general designs of electric boilers. They are the

- A. electrode and immersion types**
- B. grounded and ungrounded type
- C. fire tube type and water tube type
- D. alternating current and direct current types

Water that is fed into the boiler to replace water that has been converted into steam is called

- A. reflux
- B. feedwater**
- C. condensate
- D. return water