A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

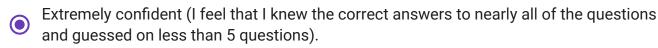
2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
  - HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
  - HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### Additional Comments? Words of advice?

Get familiar with ASHRAE books to look up information. I used NCEES Practice Exam and 6 Minute Solutions.

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other: College thermal environmental engineering textbook

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- / Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

	Basic Engineering Practice
	Thermodynamics
	Psychrometrics
	Heat Transfer
$\checkmark$	Fluid Mechanics
	Energy/Mass Balance
	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
	Support Knowledge

#### Additional Comments? Words of advice?

The NCEES official practice exam was very indicative of the question style and relative difficulty of the actual exam questions. Use the practice exam as your main guide for what / how to study, and use the MERM and ASHRAE books as your references.

This content is neither created nor endorsed by Google.

### Google Forms

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
  3 to 4 years
  4 to 5 years
- -

More than 5 years

Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
  - Heating/Cooling Loads
  - HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
  - HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

	Basic Engineering Practice	
	Thermodynamics	
	Psychrometrics	
<ul> <li></li> </ul>	Heat Transfer	
<ul> <li>Image: A start of the start of</li></ul>	Fluid Mechanics	
	Energy/Mass Balance	
	Heating/Cooling Loads	
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)	
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)	
<ul> <li>Image: A start of the start of</li></ul>	Support Knowledge	
Additional Comments? Words of advice?		

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other: Cameron Hydraulic Book

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

Basic Engineering Practice
 Thermodynamics
 Psychrometrics
 Heat Transfer
 Fluid Mechanics
 Energy/Mass Balance
 Heating/Cooling Loads
 HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
 HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

	Basic Engineering Practice	
	Thermodynamics	
	Psychrometrics	
	Heat Transfer	
	Fluid Mechanics	
<b>~</b>	Energy/Mass Balance	
	Heating/Cooling Loads	
<b>~</b>	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)	
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)	
<b>~</b>	Support Knowledge	
Additional Comments? Words of advice?		

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.

#### • 301 to 400 hours.

- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
  - Support Knowledge

#### What were your least confident topics? Select 3.

	Basic Engineering Practice
	Thermodynamics
	Psychrometrics
	Heat Transfer
$\checkmark$	Fluid Mechanics
	Energy/Mass Balance
$\checkmark$	Heating/Cooling Loads
<b>~</b>	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
	Support Knowledge

#### Additional Comments? Words of advice?

This study guide reduced the exam into 'must-know' topics, which helped me focus my studying in the right areas.

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- ✓ NFPA 90A/B
  - Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
  - Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
  - Support Knowledge

#### What were your least confident topics? Select 3.

	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
	Heat Transfer		
	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			

Adding personal notes to the study guide made this an easy test.

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



) No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

Yes, this is my first time taking the PE exam.

#### No. 2nd time.

No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

## How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- ✓ NFPA 90A/B
  - Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

**Basic Engineering Practice** Thermodynamics **Psychrometrics** Heat Transfer Fluid Mechanics Energy/Mass Balance Heating/Cooling Loads HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants) HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls) Support Knowledge Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years

#### Other:

I have been in the trade for more than 20 year but have never been emoployed as an engineer.

## Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ✓ ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions

#### NFPA 90A/B

#### Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

## What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

	Basic Engineering Practice
	Thermodynamics
	Psychrometrics
$\checkmark$	Heat Transfer
$\checkmark$	Fluid Mechanics
	Energy/Mass Balance
<b>~</b>	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
	Support Knowledge

#### Additional Comments? Words of advice?

Take as many practice exams as you can in as close to test conditions as possible. Review all the problems you miss after each one.

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

- 2 to 3 years
  3 to 4 years
  4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

## What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- / Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

## What were your least confident topics? Select 3.

$\checkmark$	Basic Engineering Practice
	Thermodynamics
	Psychrometrics
	Heat Transfer
$\checkmark$	Fluid Mechanics
	Energy/Mass Balance
	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
<ul> <li>Image: A start of the start of</li></ul>	Support Knowledge

This content is neither created nor endorsed by Google.



Additional Comments? Words of advice?

# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

## What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

Basic Engineering Practice
Thermodynamics
Psychrometrics
Heat Transfer
Fluid Mechanics
Energy/Mass Balance
Heating/Cooling Loads
HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
Support Knowledge

#### Additional Comments? Words of advice?

Take as many sample example as you can. I suggest purchasing the sample exam and the study guide from engproguides and NCEES. I used this study guide as my only prep other than sample exams. I also used the merm and ashrae for reference.

This content is neither created nor endorsed by Google.

## **Google** Forms

# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

2 to 3 years
3 to 4 years

- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
  - ASHRAE Systems
  - ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).

Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).

O Confident (I feel confident that I guessed on not more than 15 questions).

Not as confident (I do not feel confident, I guessed on more than 15 questions.

## What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge

#### Additional Comments? Words of advice?

Your guide and practice test were beyond valuable in my success on the PE Exam. Thank you so much!

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).

Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).

Onfident (I feel confident that I guessed on not more than 15 questions).

Not as confident (I do not feel confident, I guessed on more than 15 questions.

## What were your most confident topics? Select 3.

	Basic Engineering Practice
	Thermodynamics
	Psychrometrics
	Heat Transfer
	Fluid Mechanics
	Energy/Mass Balance
	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
_	

Support Knowledge

#### What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
  - Support Knowledge

#### Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- ✓ NFPA 90A/B
- ✓ Other: ASHRAE Codes

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

## What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

**Basic Engineering Practice** Thermodynamics **Psychrometrics** Heat Transfer Fluid Mechanics Energy/Mass Balance Heating/Cooling Loads HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants) HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls) Support Knowledge Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
  - Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge

## What were your least confident topics? Select 3.

	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
	Heat Transfer		
	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			

This content is neither created nor endorsed by Google.



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

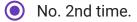
- O Yes
- 💽 No

#### If you did not pass, what was your score out of 80?

52

#### Is this your first time taking the exam?

Yes, this is my first time taking the PE exam.



No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- ] Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

# What were your least confident topics? Select 3.

**Basic Engineering Practice** Thermodynamics **Psychrometrics** Heat Transfer Fluid Mechanics Energy/Mass Balance Heating/Cooling Loads HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants) HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls) Support Knowledge Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

### Is this your first time taking the exam?

Yes, this is my first time taking the PE exam.

#### No. 2nd time.

No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

## Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

# What were your least confident topics? Select 3.

	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
	Heat Transfer		
	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

# Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

# What were your least confident topics? Select 3.

	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
	Heat Transfer		
	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

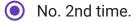


) No

If you did not pass, what was your score out of 80?

### Is this your first time taking the exam?

Yes, this is my first time taking the PE exam.



No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

# What were your least confident topics? Select 3.

	Basic Engineering Practice
	Thermodynamics
	Psychrometrics
	Heat Transfer
<ul> <li></li> </ul>	Fluid Mechanics
	Energy/Mass Balance
	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
	Support Knowledge

Additional Comments? Words of advice?

Your study guide and sample exam was very helpful ..

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

# Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

0	2 to 3 years
•	3 to 4 years
0	4 to 5 years

- More than 5 years
- Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# What were your most confident topics? Select 3.

- Basic Engineering Practice
  - Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

# What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge

### Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

# Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

## Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# What were your most confident topics? Select 3.

- Basic Engineering Practice
  - ] Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
  - HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

# What were your least confident topics? Select 3.

	Basic Engineering Practice			
	Thermodynamics			
	Psychrometrics			
<ul> <li>Image: A start of the start of</li></ul>	Heat Transfer			
<ul> <li>Image: A start of the start of</li></ul>	Fluid Mechanics			
	Energy/Mass Balance			
	Heating/Cooling Loads			
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)			
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)			
<ul> <li></li> </ul>	Support Knowledge			
Additional Comments? Words of advice?				

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

### Did you pass the exam? \*

- O Yes
- 💽 No

# If you did not pass, what was your score out of 80?

53

# Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

# How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years3 to 4 years

- 4 to 5 years
- More than 5 years
- Other:

# Which references would you recommend for the exam? \*

$\checkmark$	Personal study notes and cheat sheets.
	NCEES HVAC & Refrigeration sample PE exam.
	Engineering Pro Guides exam prep materials
$\checkmark$	ASHRAE Fundamentals
$\checkmark$	ASHRAE Systems
$\checkmark$	ASHRAE Equipment
$\checkmark$	ASHRAE Refrigeration
	ASHRAE Refrigeration
	MERM
	MERM 6 Minute Solutions

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# What were your most confident topics? Select 3.

~	Basic Engineering Practice
	Thermodynamics
	Psychrometrics
<ul> <li></li> </ul>	Heat Transfer
	Fluid Mechanics
<ul> <li></li> </ul>	Energy/Mass Balance
	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
_	

Support Knowledge

# What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
  - Support Knowledge

### Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

### Did you pass the exam? \*

- O Yes
- 💽 No

# If you did not pass, what was your score out of 80?

38

# Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

# How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

## Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
  - Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
  - Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge

**Basic Engineering Practice** Thermodynamics **Psychrometrics** Heat Transfer Fluid Mechanics Energy/Mass Balance Heating/Cooling Loads HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants) HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls) Support Knowledge Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

### Did you pass the exam? \*

- O Yes
- 💽 No

### If you did not pass, what was your score out of 80?

46

### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- ✓ NFPA 90A/B

Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
  - Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
  - Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- ✓ Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
  - Heating/Cooling Loads
  - HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge

### Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
  - Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
  - HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
$\checkmark$	Heat Transfer		
	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			

This content is neither created nor endorsed by Google.



### HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

- O Yes
- 💽 No

### If you did not pass, what was your score out of 80?

50

### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

0	2 to 3 years
	3 to 4 years
$\bigcirc$	4 to 5 years
$\bigcirc$	More than 5 years

Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge

### Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

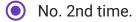


🔵 No

If you did not pass, what was your score out of 80?

### Is this your first time taking the exam?

Yes, this is my first time taking the PE exam.



) No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).

Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).

Onfident (I feel confident that I guessed on not more than 15 questions).

Not as confident (I do not feel confident, I guessed on more than 15 questions.

Basic Engineering Practice
Thermodynamics
Psychrometrics
Heat Transfer
Fluid Mechanics
Energy/Mass Balance
Heating/Cooling Loads
HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

	Basic Engineering Practice
	Thermodynamics
	Psychrometrics
	Heat Transfer
$\checkmark$	Fluid Mechanics
	Energy/Mass Balance
	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
<b>~</b>	Support Knowledge

### Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



### HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



) No

If you did not pass, what was your score out of 80?

### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

### How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets. NCEES HVAC & Refrigeration sample PE exam. Engineering Pro Guides exam prep materials **ASHRAE** Fundamentals **ASHRAE Systems ASHRAE Equipment ASHRAE** Refrigeration MERM 6 Minute Solutions **PPI Engineering Unit Conversions** 
  - NFPA 90A/B
  - Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
  - Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
  - Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

**Basic Engineering Practice** Thermodynamics **Psychrometrics** Heat Transfer Fluid Mechanics Energy/Mass Balance Heating/Cooling Loads HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants) HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls) Support Knowledge Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



### HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



) No

If you did not pass, what was your score out of 80?

### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
	Heat Transfer		
	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			

This content is neither created nor endorsed by Google.



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

0	2 to 3 years
	3 to 4 years
0	4 to 5 years
$\bigcirc$	More than 5 years

- Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
   NCEES HVAC & Refrigeration sample PE exam.
   Engineering Pro Guides exam prep materials
   ASHRAE Fundamentals
   ASHRAE Systems
   ASHRAE Equipment
   ASHRAE Refrigeration
   MERM
   6 Minute Solutions
   PPI Engineering Unit Conversions
   NFPA 90A/B
  - Other: Testmasters (the book itself was worth its weight in gold, videos were good too.)

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
- ] Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

$\checkmark$	Basic Engineering Practice
	Thermodynamics
	Psychrometrics
$\checkmark$	Heat Transfer
	Fluid Mechanics
	Energy/Mass Balance
	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
	Support Knowledge

### Additional Comments? Words of advice?

Psychrometrics. Learn it, study it, know it. Become one with the Psych Chart!

This content is neither created nor endorsed by Google.



### HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

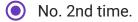
- O Yes
- 💽 No

#### If you did not pass, what was your score out of 80?

53

#### Is this your first time taking the exam?

Yes, this is my first time taking the PE exam.



No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other: HVAC AND REFRIGERATION GUIDE

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### Additional Comments? Words of advice?

DO A LOT OF PROBLEMS

This content is neither created nor endorsed by Google.



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years3 to 4 years
- 4 to 5 years
- O More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

### What were your most confident topics? Select 3.

~	Basic Engineering Practice
	Thermodynamics
	Psychrometrics
~	Heat Transfer
	Fluid Mechanics
	Energy/Mass Balance
	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
	Support Knowledge

https://docs.google.com/forms/d/1zSQLtcWFRiHLap-L4O6S45I22Joi\_pZ1XCXj\_7XrJOY/edit#responses

#### What were your least confident topics? Select 3.

**Basic Engineering Practice** Thermodynamics **Psychrometrics** Heat Transfer Fluid Mechanics Energy/Mass Balance Heating/Cooling Loads HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants) HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls) Support Knowledge Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

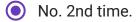


🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

Yes, this is my first time taking the PE exam.



No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

- Basic Engineering Practice
   Thermodynamics
  - Psychrometrics
  - Heat Transfer
  - Fluid Mechanics
  - Energy/Mass Balance

#### Heating/Cooling Loads

HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)

 HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### Additional Comments? Words of advice?

Much appreciated the Master Cheat Sheet you sent me. From there I just added what I felt I needed. Awesome! My friend Nik does the same, for him it is the starting point for his 1st go-to reference that is always within reach.

Consider a web page or blog on test taking techniques. The simple stupid stuff that takes away the stress. For me the biggest help was printing P-h & psychrometric charts on 11x17 then putting colored lines so my rule was always parallel to them and as such I always read the correct value. crazy simple but it put an end to months of frustration doing problems.

I did 2 practice tests early on, got an assessment then studied. 3 months later the tests seemed new to me, forgotten the questions, so it was like having 4 practice exams.

I have a test for a class so I will recommend you, but it might not be until after the holidays.

HVAC & Refrigeration PE Exam Survey - October 2017 This content is neither created nor endorsed by Google.



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
   3 to 4 years
   4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
  - Energy/Mass Balance
  - Heating/Cooling Loads
  - HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
  - HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge

#### Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

0	2 to 3 years
	3 to 4 years
$\bigcirc$	4 to 5 years
$\bigcirc$	More than 5 years

- Other:
- Which references would you recommend for the exam? \*
- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
  - ASHRAE Systems
  - ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
  - Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- | Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### Additional Comments? Words of advice?

I made a psychrometric table of over 2500 points on the psychrometric chart. It took a month to build but come test day it was WAY faster and more accurate than reading the psychrometric chart. I also made tables of air density correction factors based on temperature, and LMTD based on given temp differences. Tables are so fast and accurate. I had 40 minutes to spare in the morning session and well over an hour to spare in the afternoon. Also, there were more economics and less Bernoulli equation questions than I was expecting.

This content is neither created nor endorsed by Google.



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

### What were your most confident topics? Select 3.

$\checkmark$	Basic Engineering Practice
	Thermodynamics
<b>~</b>	Psychrometrics
	Heat Transfer
	Fluid Mechanics
<b>~</b>	Energy/Mass Balance
<b>~</b>	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
$\square$	Support Knowledge

Support Knowledge

#### What were your least confident topics? Select 3.

- Basic Engineering Practice
- / Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### Additional Comments? Words of advice?

to me it's really helpful to have summarized most common constants (about water, air, etc) and formula in a personal note. also it helped to use the alphabet index (in MERM and ashrae handbooks) to search for key words in the question. that saved me a lot of time.

This content is neither created nor endorsed by Google.

### **Google** Forms

## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).

Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).

Onfident (I feel confident that I guessed on not more than 15 questions).

Not as confident (I do not feel confident, I guessed on more than 15 questions.

### What were your most confident topics? Select 3.

	Basic Engineering Practice
	Thermodynamics
<b>~</b>	Psychrometrics
	Heat Transfer
	Fluid Mechanics
<b>~</b>	Energy/Mass Balance
~	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

	Basic Engineering Practice	
	Thermodynamics	
	Psychrometrics	
<ul> <li></li> </ul>	Heat Transfer	
	Fluid Mechanics	
	Energy/Mass Balance	
	Heating/Cooling Loads	
<ul> <li></li> </ul>	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)	
<ul> <li></li> </ul>	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)	
	Support Knowledge	
Additional Comments? Words of advice?		



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).

Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).

O Confident (I feel confident that I guessed on not more than 15 questions).

Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
- **Thermodynamics**
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

	Basic Engineering Practice		
$\checkmark$	Thermodynamics		
$\checkmark$	Psychrometrics		
$\checkmark$	Heat Transfer		
	Fluid Mechanics		
$\checkmark$	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
   3 to 4 years
   4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

Personal study notes and cheat sheets.
NCEES HVAC & Refrigeration sample PE exam.
Engineering Pro Guides exam prep materials
ASHRAE Fundamentals
ASHRAE Systems
ASHRAE Equipment
ASHRAE Refrigeration
MERM
6 Minute Solutions
PPI Engineering Unit Conversions
NFPA 90A/B
Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- ✓ Heat Transfer
- Fluid Mechanics
  - Energy/Mass Balance

#### Heating/Cooling Loads

- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
	Heat Transfer		
	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
  - Energy/Mass Balance
  - Heating/Cooling Loads
  - HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
  - HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

**Basic Engineering Practice** Thermodynamics **Psychrometrics** Heat Transfer Fluid Mechanics Energy/Mass Balance Heating/Cooling Loads HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants) HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls) Support Knowledge Additional Comments? Words of advice?



### HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

- O Yes
- 💽 No

#### If you did not pass, what was your score out of 80?

51

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

Personal study notes and cheat sheets.
NCEES HVAC & Refrigeration sample PE exam.
Engineering Pro Guides exam prep materials
ASHRAE Fundamentals
ASHRAE Systems
ASHRAE Equipment
ASHRAE Refrigeration
MERM
6 Minute Solutions
PPI Engineering Unit Conversions
NFPA 90A/B
Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

**Basic Engineering Practice** Thermodynamics **Psychrometrics** Heat Transfer Fluid Mechanics Energy/Mass Balance Heating/Cooling Loads HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants) HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls) Support Knowledge Additional Comments? Words of advice?



## HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

- O Yes
- 💽 No

#### If you did not pass, what was your score out of 80?

52

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years
3 to 4 years
4 to 5 years

- More than 5 years
- Other:

### Which references would you recommend for the exam? \*

•••	incli references would you recommend
	Personal study notes and cheat sheets.
<ul> <li></li> </ul>	NCEES HVAC & Refrigeration sample PE exam.
	Engineering Pro Guides exam prep materials
	ASHRAE Fundamentals
	ASHRAE Systems
	ASHRAE Equipment
<b>~</b>	ASHRAE Refrigeration
<b>~</b>	MERM
	6 Minute Solutions
	PPI Engineering Unit Conversions

- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

Basic Engineering Practice
Thermodynamics
Psychrometrics
Heat Transfer
Fluid Mechanics
Energy/Mass Balance
Heating/Cooling Loads
HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
<ul> <li>Image: A start of the start of</li></ul>	Heat Transfer		
	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			



### HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

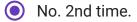
- O Yes
- 💽 No

#### If you did not pass, what was your score out of 80?

47

#### Is this your first time taking the exam?

Yes, this is my first time taking the PE exam.



No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years3 to 4 years

- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
	Heat Transfer		
$\checkmark$	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			



### HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
  - Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
  - Not as confident (I do not feel confident, I guessed on more than 15 questions.

Basic Engineering Practice
Thermodynamics
Psychrometrics
Heat Transfer
Fluid Mechanics
Energy/Mass Balance
Heating/Cooling Loads
HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge

#### Additional Comments? Words of advice?

Never give up. Only way to win it is to be in it.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

**Basic Engineering Practice** Thermodynamics **Psychrometrics** Heat Transfer Fluid Mechanics Energy/Mass Balance Heating/Cooling Loads HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants) HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls) Support Knowledge Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

0	2 to 3 years
	3 to 4 years
$\bigcirc$	4 to 5 years
$\bigcirc$	More than 5 years

Other:

#### Which references would you recommend for the exam? \*

$\checkmark$	Personal study notes and cheat sheets.
	NCEES HVAC & Refrigeration sample PE exam.
	Engineering Pro Guides exam prep materials
$\checkmark$	ASHRAE Fundamentals
	ASHRAE Systems
	ASHRAE Equipment
$\checkmark$	ASHRAE Refrigeration
<ul> <li></li> <li></li></ul>	ASHRAE Refrigeration MERM
	MERM
	MERM 6 Minute Solutions
	MERM 6 Minute Solutions PPI Engineering Unit Conversions

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- ✓ Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
  - HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
  - HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

**Basic Engineering Practice** Thermodynamics **Psychrometrics** Heat Transfer Fluid Mechanics Energy/Mass Balance Heating/Cooling Loads HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants) HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls) Support Knowledge Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.

#### • 301 to 400 hours.

- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
  3 to 4 years
  4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
  - ] Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

### What were your least confident topics? Select 3.

	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
	Heat Transfer		
	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

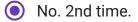


) No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

Yes, this is my first time taking the PE exam.



No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance

#### Heating/Cooling Loads

- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

**Basic Engineering Practice** Thermodynamics **Psychrometrics** Heat Transfer Fluid Mechanics Energy/Mass Balance Heating/Cooling Loads HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants) HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls) Support Knowledge Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years

- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance

#### Heating/Cooling Loads

- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

### What were your least confident topics? Select 3.

$\checkmark$	Basic Engineering Practice	
	Thermodynamics	
	Psychrometrics	
	Heat Transfer	
	Fluid Mechanics	
	Energy/Mass Balance	
	Heating/Cooling Loads	
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)	
<b>~</b>	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)	
<b>~</b>	Support Knowledge	
Additional Comments? Words of advice?		

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

- O Yes
- 💽 No

#### If you did not pass, what was your score out of 80?

53

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years3 to 4 years

- 4 to 5 years
- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
  - Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
  - Not as confident (I do not feel confident, I guessed on more than 15 questions.

### What were your most confident topics? Select 3.

	Basic Engineering Practice
	Thermodynamics
<b>~</b>	Psychrometrics
$\checkmark$	Heat Transfer
	Fluid Mechanics
	Energy/Mass Balance
<b>~</b>	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge

#### Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*



🔵 No

If you did not pass, what was your score out of 80?

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

2 to 3 years
3 to 4 years
4 to 5 years

- More than 5 years
- Other:

#### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

#### What were your most confident topics? Select 3.

- Basic Engineering Practice
  - Thermodynamics
  - Psychrometrics
- Heat Transfer
- Fluid Mechanics
  - Energy/Mass Balance
  - Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
  - HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
  - Heating/Cooling Loads
  - HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge

#### Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.



A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

- O Yes
- 💽 No

#### If you did not pass, what was your score out of 80?

48

#### Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- ✓ MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- ✓ NFPA 90A/B
  - Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).

Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).

Onfident (I feel confident that I guessed on not more than 15 questions).

Not as confident (I do not feel confident, I guessed on more than 15 questions.

# What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance

#### Heating/Cooling Loads

- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

# What were your least confident topics? Select 3.

	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
$\checkmark$	Heat Transfer		
	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Additional Comments? Words of advice?			

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

- O Yes
- 💽 No

## If you did not pass, what was your score out of 80?

54

## Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

Ο	2 to 3 years
•	3 to 4 years
$\bigcirc$	4 to 5 years

- More than 5 years
- Other:

# Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ✓ ASHRAE Equipment
- ✓ ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- > Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
  - Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Onfident (I feel confident that I guessed on not more than 15 questions).
  - Not as confident (I do not feel confident, I guessed on more than 15 questions.

# What were your most confident topics? Select 3.

	Basic Engineering Practice
	Thermodynamics
	Psychrometrics
<b>~</b>	Heat Transfer
	Fluid Mechanics
<b>~</b>	Energy/Mass Balance
<b>~</b>	Heating/Cooling Loads
	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

# What were your least confident topics? Select 3.

$\checkmark$	Basic Engineering Practice		
	Thermodynamics		
	Psychrometrics		
	Heat Transfer		
	Fluid Mechanics		
	Energy/Mass Balance		
	Heating/Cooling Loads		
<b>~</b>	HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)		
<b>~</b>	HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)		
	Support Knowledge		
Ado	Additional Comments? Words of advice?		

This content is neither created nor endorsed by Google.



# HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

#### Did you pass the exam? \*

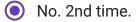
- O Yes
- 💽 No

#### If you did not pass, what was your score out of 80?

52

## Is this your first time taking the exam?

Yes, this is my first time taking the PE exam.



No. I have taken the exam more than 2 times.

#### How many hours did you study for this exam?

- O to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.

# How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other:

### Which references would you recommend for the exam? \*

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
- Engineering Pro Guides exam prep materials
- ASHRAE Fundamentals
- ✓ ASHRAE Systems
- ASHRAE Equipment
- ASHRAE Refrigeration
- MERM
- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other:

How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).



Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).

- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- O Confident (I feel confident that I guessed on not more than 15 questions).
- Not as confident (I do not feel confident, I guessed on more than 15 questions.

# What were your most confident topics? Select 3.

Basic Engineering Practice
Thermodynamics
Psychrometrics
Heat Transfer
Fluid Mechanics
Energy/Mass Balance
Heating/Cooling Loads
HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

## What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

Support Knowledge

#### Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.

