ATMAE

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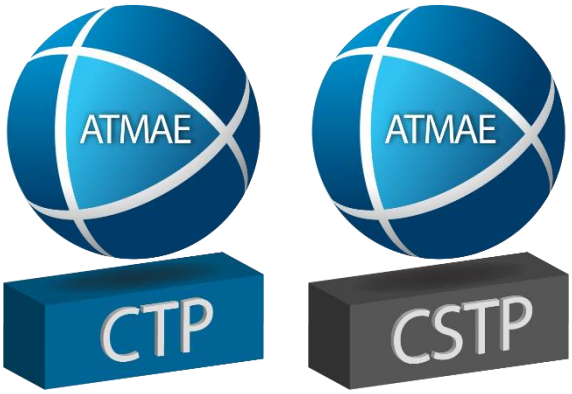
STUDY GUIDE FOR THE CERTIFIED TECHNICAL PROFESSIONAL CERTIFICATION EXAM



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CONTENT for the ATMAE CERTIFIED TECHNICAL PROFESSIONAL exam

The 5 major content areas from which the exam is comprised are as follows:

Content	Number of Questions
1. Applied Mathematics	20
1.1 Algebra	
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1.3 Fractions	
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Content	Number of Questions
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Content	Number of Questions
10. Industrial Maintenance	10
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10.3 Sensors	
10.4 Equipment	
10.5 Bearings	
10.6 Couplings	

NOTE: Individual content mastery data of examinees can be provided for all of the subsections listed under the 10 major content areas for programs using this exam for assessment purposes.

SAMPLE QUESTIONS

These are sample questions that you will not find on the ATMAE exam; however, they will help you familiarize yourself with the exam. The answers are on page 25 of this study guide.

Section 1: Applied Mathematics

Body of Knowledge

This section may cover word problems on any of the following topics: algebra, decimal fractions, fractions, percent, personal finances, reading measurement tools, statistics, trigonometry, and whole numbers. Examples of these questions are as follows:

1. If f(x) = 5x + 2, what does f(3) equal?

   A. 2 B. 3 C. 10 D. 13 E. 17

2. If an aluminum block is ½" thick and then 1/8" is milled, how thick is it now?

   A. .125" B. .250" C. .375 D. .625 E. .750

3. A machinist works 5 1/6 hours for four days, how many hours does he or she have to work on the fifth day to put in a 30 hour work week?

   A. 5 1/6 B. 5 1/3 C. 9 1/6 D. 9 1/3 E. 10 1/3

4. A box of 250 nails has been used to complete 80% of the job. How many more nails are required to finish the job?

   A. 50 B. 63 C. 100 D. 200 E. 250

5. A technician makes $15.40 an hour and works 40 hours a week. What is the annual salary with two weeks off for vacation?

   A. $616 B. $7,392 C. $24,640 D. $29,568 E. $30,800

6. How many 2" x 2" x 8' foot boards are required to build a 5 legged bar stool with legs that are 22" in length?

   A. 1 B. 2 C. 3 D. 4 E. 5

7. How many decimeters are in a meter?

   A. 10 B. 20 C. 100 D. 200 E. 100

8. Which of the following triangles does not have any equal interior angles?

   A. acute B. equilateral C. isosceles D. obtuse E. scalene

9. Which of the following is the length of the adjacent side over the length of the hypotenuse?

   A. sine B. cosine C. secant D. tangent E. cotangent

10. How many rafters are needed for the roof of a shed if they are spaced 24” OC and the shed is 16’ long? Add one for the first rafter.

    A. 8 B. 9 C. 10 D. 12 E. 14

References

- Phagan, R. J. (2010). Applied Mathematics (4th ed.). Tinley Park, IL: The Goodheart-Wilcox Company, Inc.
- Logan, J.D. (2013). Applied Mathematics (4th ed.). Hoboken, NJ: John Wiley & Sons, Inc.
  Carman, R (2011). Mathematics for the trades (9th ed.). Saddle River, NJ: Pearson

Section 2: Blueprint reading

Body of Knowledge

This section may cover any of the following topics: alphabet of lines, auxiliary views, dimensioning, GD&T, multiview drawings, pictorial drawings, section views, symbology, tolerancing, and working drawings. Examples of these questions are as follows:

1. In the side view of an orthographic drawing, what dimensions are represented?

   A. length and width B. width and height
   C. depth and length D. depth and height

2. What type of line does the following symbol represent? _ _

   A. phantom B. hidden C. center D. section

3. How would a hole in an object be represented in the front of an oblique sketch?

   A. ellipse B. oval C. circle D. both a & b

4. What is the name of the curved outside corner of an object?

   A. fillet B. bevel C. chamfer D. round

5. What type of projection would allow all of the horizontal lines to be drawn at 15 degrees?

   A. isometric B. trimetric C. dimetric D. oblique

6. Which type of drawing is just the front view with depth ?

   A. isometric B. oblique C. orthographic D. two-point

7. Where does the top view rest on a two-point perspective drawing?

   A. horizon line B. ground line C. station line D. picture plane E. vanishing line

8. Which angle would be preferred for leaders?

   A. 15 degrees B. 30 degrees C. 45 degrees D. 75 degrees

9. What is the term for the minimum clearance space?

   A. tolerance B. limits C. minimum material condition D. allowance

10. In the following thread description, "1B" represents a:

2-20UNC-1B LH

A. loose fit for external
B. close fit for external
C. metric threads
D. loose fit for internal
E. close fit for internal

References

- Brown, W. C., Kicklighter, C. E. (2008). Drafting and design (7th ed.). Tinley Park, IL: The Goodheart-Willcox Company, Inc.
- Giesecke, F. E. et al. (2011). Technical Drawing (14th ed.). Upper Saddle River, NJ: Pearson Prentice Hall, Inc.
- Any basic drafting/print reading text should cover this material.

Section 3: Industrial Safety

Body of Knowledge

This section may cover any of the following topics: OSHA regulations and history; workers compensation; industrial hygiene; ergonomics; safety inspections; accident prevention; ventilation; personal protective equipment; respiratory protection; fire protection; citations; and NIOSH. Examples of these questions are as follows:

1. What does the acronym OSHA stand for?

   A. Organization for Safety and Help Administration
   B. Organization for Safe and Help Administration
   C. Occupational Safety and Health Administration
   D. Occupational Safety and Help Administration

2. NIOSH is a part of the:

   A. Department of Commerce.
   B. Department of Labor.
   C. Department of Health & Human Services.
   D. Department of Defense.

3. Which type of fire extinguisher would work on a flammable metals fire?

   A. A B. B C. C D. D

4. What are solid particles that are formed when metal or other solid vaporizes and the molecules condense in fresh air?

   A. mist B. fumes C. gas D. vapors E. dust

5. What does TLV mean?
   A. Time limit value
   B. Tiny liquid vapor
   C. Term limit value
   D. Total limit value
   E. Threshold limit value

6. What is the maximum penalty for a willful violation?

   A. $2,000 B. $5,000 C. $7,000 D. $70,000

7. What addresses specific hazards such as handling hazardous waste?

   A. regulation B. standard C. citation D. section E. code

8. This is when the worker is incapable of work for a period of time and then expected to fully recover.
   A. Temporary Total Disability
   B. Temporary Partial Disability
   C. Schedule Disability
   D. Non Schedule Disability

9. Which OSHA record keeping form summarizes all the work related injuries and illnesses for the year?

A. OSHA 100 B. OSHA 300 C. OSHA 300A D. OSHA 301

10. What does LEL represent?

A. lead exposure limit B. limited exposure level C. local exhaust limits
D. lower exposure limits E. none of these

References

Goetsch, D. L. (2010). Occupational safety and health for technologists, engineers, and managers (7th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Asfahl, C. R. (2010). Industrial safety and health management (6th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

www.osha.gov

Section 4: Production

Body of Knowledge

This section may cover any of the following topics: inventory management; industrial organization structures; production philosophies (JIT, MRP, Kanban, group technology, etc.); production charts (process flow chart, Gantt, pert, etc.); preventative maintenance; overhead vs. production costs; plant layout and materials handling; product life cycles; inspection techniques; forecasting; time and motion study; scientific management. Examples of these questions are as follows:

1. What is a Title VII violation?

   A. Hiring only 30-40 years old people
   B. Firing employees older than 50 years old
   C. Classifying employees by age
   D. All of these

2. What is the term for material in various stages of completion in the production facility?

   A. raw materials B. finished goods C. work-in-process D. set-up

3. What is the name of the method for controlling production so excessive forward movement of material is restricted?
   A. MRP B. MRPII C. Kanban D. Group Technology

4. The term for a network planning technique where the activities that make up the project and how they are related is graphically presented is a(n):

   A. Gantt chart. B. PERT chart. C. Operation sheet. D. Job card.

5. Which of the following led to the philosophy of producing materials as needed, thereby, reducing inventories?

   A. CPM B. MRP C. MRPII D. JIT

References

- Chapman S. (2005). Fundamentals of Production planning and controls. Prentice Hall Publishing.
- Tony Arnold J.R. (2011) Introduction to Materials Management, 7th Edition, Prentice Hall Publishing.
- Project Management Institute: PMBOK (2014)

Section 5: Quality Control

Body of knowledge

This section may cover any of the following topics: Basic statistics; upper and lower control limits; various QC charting methods (R-chart, p-chart, u-chart, np chart, etc.); sampling methods; reliability; variability; attributes; military standards; distributions; quality indicators; types of errors; probability; and QC curves.

Examples of these questions are as follows:

1. What is one of the principles of ISO 9000:2000?

   A. Selection of suppliers
   B. Strategic management
   C. Involvement of people
   D. Management of inventories

2. Quality characteristics that are classified as conforming or nonconforming to specifications such as a “go/no go gage” applications are referred to as data?

   A. variable B. continuous C. attribute D. either A or C

3. Which one of the following is not correct with respect to the total area under the curve associated with $\pm 1\sigma$, $\pm 2\sigma$, and $\pm 3\sigma$?

   A. 99.73% B. 95.46% C. 90.34% D. 68.26%

4. Variation is present in every process. Which one of the following statements is not true?

   A. principal sources of variation include equipment, materials, environment, and operator.
   B. automation has increased the effects of environmental variation.
   C. equipment variation includes, but is not limited to, tool wear, vibration, and part positioning.
   D. material variations can occur in both the finished product and raw material.

5. Which one of the following statements is correct with respect to a proper description of random (chance) variation?

   A. it is a natural or expected variation.
   B. when only random causes of variation are present in a process, the process is considered to be in a state of statistical control.
   C. all of the above statements are correct descriptions of random causes of variation.
   D. none of the statements above are true.

6. With respect to process capability, which of the following situations is the most desirable?

   A. $6\sigma > USL - LSL$ B. $6\sigma < USL - LSL$ C. $6\sigma = USL - LSL$

7. The optimal capability index (Cp) for non - six sigma company is frequently established at?

   A. 0.67 B. 1.25 C. 1.33 D. 1.00

8. Which one of the following statements is not correct with respect to a continuous process?

   A. it typically operates 24 hours a day, seven days a week
   B. it does not require group or individual charting of process variables
   C. it stops only for scheduled maintenance or emergencies
   D. it normally uses sensors for automatic data collection and process control

9. If repeatability is large compared to reproducibility, the reason(s) for it may center on which of the following reasons?

   A. the gage needs maintenance
   B. the gage could need to be redesigned to be more rigid
   C. the clamping or location for gaging needs to be improved
   D. all of the above are acceptable reasons
   E. only (a) and (c) are acceptable reasons

10. If reproducibility is large compared to repeatability, the reason(s) for it may center on which of the following reasons?

    A. the operator needs to be better trained on how to use and read the gage
    B. there is excessive within-part variation
    C. a fixture may be needed to help the operator use the gage consistently
    D. all of the above are acceptable reasons
    E. only (a) and (c) are acceptable reasons

References

- Besterfield, D. H. (2008). Quality control (8th ed.). Upper Saddle River, NJ: Pearson Prentice- Hall, Inc..
- Goetsch, David L. and Stanley B. Davis. (2012). Quality management for Organizational Excellence. Upper Saddle River, NJ: Pearson Prentice-Hall, Inc.
- Cox, J. (2010). Theory of constraints Handbook. New York. McGraw Hill
- Goldratt, E. M. & Cox, J. (1992). The goal: A process of ongoing improvement (2nd ed). Great Barrington, MA: North River Press.
- Gitlow, H.S., & Gitlow, S.J. (1987). The Deming guide to quality and competitive position. Englewood Cliffs, NJ: Prentice- Hall.
- Any quality book covering control charts, distributions, and diagrams.

Section 6: Industrial Electricity

Body of Knowledge

This section may cover any of the following topics: general topics on basic electricity fundamentals such as; ohm's law, voltage, current, power, series and parallel circuits.

1. If 12 volts is placed across a resistance of 100 ohms, how much current will flow through it?

    A. 12 volts
    B. 1200 watts
    C. 0.12 amps
    D. 8.3 amps

2. The rate at which electrons flow through a circuit is called?

    A. Voltage
    B. Polarity
    C. Electromotive force
    D. Current

3. A transformer has 100 turns in the primary and 1200 turns in the secondary. If 240 volts AC is applied to the primary, the voltage in the secondary will be?

    A. 2880 volts
    B. 240 volts
    C. 12 volts
    D. 0 volts

4. All facets of the electrical industry apply the ____ as a minimum standard for the installation of electrical systems.

    A. ABC
    B. NEC
    C. PBC
    D. ANA

5. When an alternating current power source is connected to a circuit, it produces a current that?

    A. Changes in direction, but not in magnitude
    B. Changes in magnitude, but not in direction
    C. Does not change in magnitude or direction
    D. Changes in both direction and magnitude

6. Generally, any voltage above ____ volts is considered dangerous.

    A. 6
    B. 12
    C. 30
    D. 120

7. According to Ohm's law, assuming a body path resistance of 100 ohms, what amount of current would flow if a person came in contact with 120-V?

    A 1.2 amperes
    B. 0.833 amperes
    C. 12 milliamperes
    D. 833 milliamperes

8. A continuity tester is basically:

    A. a series circuit consisting of a battery, switch, and test leads.
    B. a parallel circuit consisting of a battery, light bulb, and test leads.
    C. a parallel circuit consisting of a battery, switch, and test leads.
    D. a series circuit consisting of a battery, light bulb, and test leads.

9. Three identical lamps are connected in parallel to a 6-V source. The voltage across each lamp would be:

    A. 12 V.
    B. 6 V.
    C. 4 V.
    D. 2 V.

10. When using the ohmmeter as a continuity tester, an open circuit is indicated by:

    A. a low-resistance reading.
    B. a high-resistance reading.
    C. an infinite-resistance reading.
    D. a zero-resistance reading.

References

- Petruzella, F. (2014). Electricity for the Trades (2nd ed). New York: McGraw Hill
- Hoffman, P. (2012). Precision Machining Technology. Clifton Park, NY: Delmar Publishers
- Daines, J. (2013). Fluid Power. The Goodheart-Willcox Publishers
- Any book covering basic electricity.

Section 7: Welding

Body of Knowledge

This section may cover any of the following topics: Basic welding concepts such as; types of welding processes, weld joints, welding machines, welding materials.

1. What is the fault of a welding bead when it is too narrow?

   A. Welding current too high
   B. Travel speed too slow
   C. Travel speed too fast
   D. None of the above

2. Reverse polarity is:

   A. AC
   B. DCEP
   C. DCEN
   D. None of the above

3. GMAW uses which of the following transfer methods?

   A. Spray
   B. Globular
   C. Short circuit
   D. All of the above

4. GMAW can be done:

   A. in all positions
   B. in the flat and horizontal fillet positions only
   C. in flat position only
   D. in the vertical down position only

5. A E6010 SMAW electrode can be used:

   A. in all positions
   B. in the flat and horizontal fillet positions only
   C. flat position only
   D. In the vertical down position only

6. Postflow in GTAW in used to protect:

   A. Tungsten electrodes
   B. Weld puddles
   C. Filler metal
   D. All of the above

7. In GTAW with DCEN:

A. 50% of the heat is on the electrode, 50% on the work
B. 70% of the heat is on the electrode
C. 30% of the heat is on the work
D. 30% of the heat is on the electrode

8. Acetylene cylinders that have been lying on their sides must stand upright for at least _____ hours before they are used.

A. 2
B. 3
C. 4
D. 5

References

- Althouse (2013). Modern Welding. Goodheart Wilcox Publishers
- Jeffus, L. (2012). Welding: Principles and Applications (2nd ed). Clifton Park, NY: Delmar Publishers

Section 8: Fluid Power

Body of Knowledge

This section may cover any of the following topics: Basic hydraulics and fluid power concepts such as gas laws, basic components, principles of mechanics.

1 . What is the main purpose of detergent additives in lubricating oils?

A. Prevent sludge B. Reduce cost C. Act as a filter D. None of the above

2. What is NOT a basic component of a hydraulic cylinder?

A. piston B. spring C. cylinder tube D. piston rod

3. Which pump is a non-positive displacement pump?

A. gear B. impeller C. vane D. piston

4. To increase cylinder speed, adjust the _____.

a. flow control valve
b. the pressure relief valve
c. hose diameter
d. sequence valve

5. The statement “Fluid in a container exerts equal pressure, at right angles, to the container wall”, is _____.
a. Charles’ Law b. Boyle’s Law c. Pascal’s Law d. N.Y. Law

6. What is the most common use for a non-positive displacement pump?

a. industrial applications
b. moving fluid from on system to another
c. high pressure situations
d. moving heaving loads

References

- Eaton (2007). Industrial Hydraulics Manual, 5th ed. Eaton Fluid Power
- Daines, J. (2013). Fluid Power. The Goodheart-Willcox Publishers
- Any quality book covering basic fluid power systems

Section 9: Machining

Body of Knowledge

This section may cover any of the following topics: Basic machining concepts such as; calculating feeds and speeds, cutting tool identification, machining operations.

1. What machining process would produce the smoothest and precise hold in steel?

   A. Reaming
   B. Boring
   C. Knurling
   D. Drilling

2. What is used primarily for cutting threads on a lathe?

   A. Tailstock quill
   B. Taper jig
   C. Cross slide
   D. Lead screw

3. CNC refers to a machine tool that uses programs to automatically execute a series of machining operations. CNC stands for:

   A. Central Numerical Control
   B. Computer Numerical Control
   C. Calibrated Numerical Control
   D. Complete Numerical Control

4. In machining, the three general cutting conditions that determine the rate of metal removal are:

   A. Coolant type, feed rate, depth of cut
   B. Cutting speed, feed rate, depth of cut
   C. Cutting speed, feed rate, cut type
   D. Surface finish, feed rate, depth of cut

5. The purpose of ____ is to produce a smoother surface and bring the part to the final desired size.

   A. Roughing
   B. Cutting
   C. Feeding
   D. Finishing

6. Milling machine _____ rates are specified in IPM.

   A. Revolution
   B. Feed
   C. Speed
   D. Load

7. _____ milling is feeding the work piece in against the rotation of the cutting tool.

   A. Conventional
   B. Climb
   C. Face
   D. Peripheral

8. An ____ can be used to very accurately find a reference edge.

   A. Edge locator
   B. Layout locator
   C. Test indicator
   D. Edge finder

9. All the following are good shop practices except:

   A. Allow chips to wire up
   B. No jewelry
   C. No loose clothing
   D. Ear, eye protection

10. FPR stands for?

   A. Foot per reel
   B. Feed per revolution
   C. Feet per revolution
   D. Feed per reel

References

- Walker, J., Dixon, B. (2014). Machining Fundamentals, 9th ed. Goodheart-Willcox Publisher.
- Miller, R. & Miller, M. R. (2004). Machine Shop Basics, 5th ed. Audel.
- Any metals book covering machining

Section 10: Industrial Maintenance

Body of Knowledge

This section may cover material on the following topics: lubricants, sensors, bearings, couplings, hand tools, power transmission, and industrial equipment.

1. What is the main purpose of detergent additives in lubricating oils?

    A. Prevent sludge
    B. Reduce cost
    C. Act as a filter
    D. None of the above

2. What is a measure of a components or system's useful output energy?

    A. Rate
    B. Percentage
    C. Efficiency
    D. Value

3. File parts include the point, edge, face, heel, and?

    A. Handle
    B. Head
    C. Tang
    D. Blade

4. What type of tap is used after a taper tap has been used to start a true and straight thread?

    A. Bottom
    B. Plug
    C. Die
    D. Wrench

5. Basic sling hitches include all of the following except which one?

    A. Bridle
    B. Choker
    C. Basket
    D. Box

6. The type of oiling system that relies on capillary action to move the oil to where it is needed is called:

    A. Submersion system
    B. Wick system
    C. Drip system
    D. Centralized system

7. The process by which microscopic gas bubbles expand in a vacuum and suddenly implode when entering pressurized area is known as:

    A. Pseudocavitation
    B. Cavitation
    C. Excitation
    D. Pressurization

8. _____ misalignment is a condition where two shafts are parallel but the pulleys are not on the same axis.

    A. Angular
    B. Bearing
    C. Nonparallel
    D. Offset

9. In a gear transmission, the speed of the driven gear depend on the speed of the drive gear and the:

    A. Thickness of the gears
    B. Diameter of the gear spindle
    C. Diameter of the drive gear
    D. Number of teeth on the gears

10. The five main alignment methods include straightedge, rim and face, reverse dial, electronic reverse dial, and?

    A. Electronic straight edge
    B. Electronic rim and face
    C. Laser rim an face
    D. Laser straight edge

References

- Green, D. & Gosse, J. (2010). Industrial Maintenance, 3rd ed. American Technical Publishers
- Brumbach, M., Clade, J. (2013). Industrial Maintenance, 2nd ed. Delmar Cengage Learning

Recommendations for Taking the ATMAE CTP Exam

- **Thoroughly review this Study Guide and review the reference textbooks.**
- **You do NOT have to pass each section. Only a composite passing score is required.**
- **Rest well the night before the exam.**
- **Do NOT leave any questions blank. All questions are multiple choice, so make an educated guess at questions containing content you may not be familiar with.**
- **Don't panic! You do know this material or your instructor, mentor, or colleague would not want you to take the exam.**
- **Pace yourself. There are 160 questions and you have 120 minutes (2 hours) to finish.**
- **Don't spend too much time on one question because all questions are worth the same amount.**
- **Flag questions you are unsure of and come back to them at the end if you have time.**
- **Maintain a positive attitude. You can always retake the exam if you do not pass.**

Answers for Sample Questions

Applied Math
1. e 2. c 3. d 4. b 5. e 6. b 7. a 8. e 9. b 10. b

Blueprint Reading
1. d 2. a 3. c 4. d 5. c 6. b 7. d 8. c 9. d 10. d

Industrial Safety
1. c 2. c 3. d 4. b 5. e 6. d 7. b 8. b 9. c 10. d

Production
1. d 2. c 3. c 4. a 5. d

Quality Control
1. c 2. c 3. c 4. b 5. c 6. b 7. c 8. b 9. d 10. e

Industrial Electricity
1. c 2. d 3. a 4. b 5. d 6. b 7. a 8. d 9. b 10. c

Welding
1. c 2. b 3. d 4. a 5. a 6. d 7. d 8. a

Fluid Power
1. a 2. b 3. b 4. a 5. c 6. b

Machining
1. a 2. d 3. b 4. b 5. d 6. b 7. a 8. d 9. a 10. b

Industrial Maintenance
1. a 2. c 3. c 4. b 5. d 6. b 7. b 8. d 9. d 10. c

ATMAE Certification Examination Information

Policy
The Board of Certification shall design and administer certification examinations for all individuals. The examinations shall be administered online as requested. The areas covered by the examinations and the minimum acceptable scores shall be determined by the Board of Certification.

Examination Information
The ATMAE Certification Examination is currently available for use for individual certification and as a program assessment examination. The exam is *open book, 160-question, multiple-choice examination. (*Examinees are allowed to use printed reference materials (e.g., reference texts) during the exam. However, internet or software-based references are not allowed to be used during the exam. Oversight of this is the responsibility of the exam proctor.)

Individual Examinations
Individuals interested in taking the exam on an individual basis should arrange for an exam proctor, and schedule the exam online at **www.atmae.org** If the individual passes and wants to become certified, they will be responsible for submitting an application and paying the appropriate ATMAE membership fee, and certification documentation fee.
Note: *If you are an individual with disabilities and need academic accommodations, please call ATMAE at (919) 635-8335 to make the necessary arrangements for you to take the test.*

Certification after Examination
Examinees who have passed the ATMAE Certified Technical Professional Examination and who apply for ATMAE Certification will be certified by ATMAE upon receipt of their application and payment of all applicable fees. The ATMAE Office usually has confirmation of examination results within two weeks of the date of the examination. Applicants must be ATMAE members or join ATMAE in order to be certified. **You can become an ATMAE member by simply applying and paying online at www.atmae.org or by calling ATMAE at (919) 635-8335.** If applying for certification after passing the exam, you will need to pay relevant membership fees and indicate on the application form the approximate date of the exam and the location at which you took the exam so that ATMAE can verify your exam results.

Program Assessment
When used for program assessment purposes, the exam fees are typically paid by the Program or Department using the exam. Aggregate exam scores, and comparative score information, are released to the Program or Department contact after the exams have been scored and the examination fee has been paid. For more information about the ATMAE Certification Examination or to obtain scores and determine your ATMAE Membership status before applying for certification, contact ATMAE by phone at **(919) 635-8335** or by email at admin@atmae.org

Certificates
Certificates appropriate for framing are issued for one-year periods upon initial certification and upon annual renewal. In addition, individuals who passed the certification exam and stay current with all applicable membership and certification dues will be listed on the ATMAE Certification home page for recognition status by employers and colleagues.

Purpose of ATMAE Certification

The purpose of the Association of Technology, Management, and Applied Engineering (ATMAE) certification program is to provide recognition of the attainment of certain standards by professionals working in industry, business, government, and academia.

Benefits of Certification: Why get certified?

- ATMAE Certification states that you have a recognized level of expertise in a specific field, a distinction that sets you apart.
- ATMAE Certification provides external validation of your knowledge and competence among others not familiar with the profession, improving your marketability.
- ATMAE Certification shows your commitment to the profession and your own professional growth, factors that can affect career advancement.
- ATMAE Certification requires dedication to continuing education, and continued growth and development as a professional.
- ATMAE Certification may help you access travel grants for educational activities that support your organization's continuous improvement efforts and your professional development.
- ATMAE Certification is a link between you, ATMAE and other professionals, a bond of support, strength, and belonging.

Authority and Responsibility

ATMAE is dedicated to the establishment and maintenance of professional standards for industrial professionals and derives the authority and responsibility for certification from its Constitution and Bylaws which state, "...a Board of Certification may be established to coordinate and conduct all certification activity of the Association...the Board shall be an autonomous decision-making body with final authority for all certification decisions." ATMAE established the Board of Certification at the October 19, 1991 Executive Board meeting.

Eligibility for ATMAE Technical Professional Certification

Individuals meeting the following criteria are eligible to be certified by ATMAE:
Have a technical, technology-related degree (AS, BS, MS or Doctorate) or an equivalent degree, teach or serve as an administrator in a technical or technology-related degree program, or be professionally employed in a capacity related to the discipline of manufacturing, industry, or technology. Individuals are also eligible in the last semester prior to receiving their AS or BS degree, if their impending graduation is verified on the application by their academic advisor.

ATMAE Membership

Applicants for certification must be ATMAE members (or join ATMAE at the time of application for certification).

Technical Professional Certification Levels

Certified Technical Professional (CTP)
CTP is the initial certification status awarded to eligible applicants. Members may stay at this level indefinitely as long as they pay their membership and certification dues annually. Upon completion of the initial three-year CTP certification and acquisition of 30 Professional Development Units (PDUs), a certified member can elect to become a Certified Senior Technical Professional.

Certified Senior Technical Professional (CSTP)
CSTP is awarded to eligible applicants with three years of post-graduate professional experience who have completed 30 PDUs of continuing education activity in the three years prior to their application. CSTP certification is renewable every three years and requires 30 PDUs of continuing education activity within the prior 3-year CSTP period. Documentation for CSTP at Application Appropriate documentation of professional experience and PDUs must be included on the application for certification. ATMAE reserves the right to verify degree status, professional experience, and PDUs.