



PREPARING TO TAKE THE LEADERSHIP & MANAGEMENT APTITUDE TEST

About the LMAT™

The Leadership and Management Aptitude Test (LMAT™) is a Cognitive perception assessment specifically designed to evaluate mental agility needed to perform successfully in management and leadership positions.

WHAT DOES THE LMAT™ MEASURE?

The LMAT™ is a cognitive ability test. Like all cognitive ability assessments, the LMAT™ measures a variety of different types or manifestations of mental ability. The LMAT™ assesses verbal reasoning skills, numeric reasoning skills, logical reasoning skills, visual/spatial reasoning skills, and scenario-based reasoning skills (a specific test of leadership decision-making).

No test can measure all aspects of an individual's ability. Thus any test, no matter how well constructed is inherently inadequate by its very nature. Nevertheless, some form of thorough and broadly-based testing can be very useful, particularly in combination with other determinants of performance and potential; such as qualifications, experience and/or performance appraisal ratings for example. The LMAT™ therefore attempts to provide a wider and more balanced measuring system that includes objective assessment of cognitive skills and abilities.

FORMAT OF THE LMAT™

There are five sections in the LMAT™. Four of these sections are timed (all to be completed in one hour) and the last section (scenario based reasoning) is "un-timed" or not "speeded". Speeded means that the test includes more questions than most people will be able to complete in the time allowed. Cognitive skills tests are often "speeded" so as to test for attention to detail and accuracy as well as speed.

Also, in the 'real world' workplace, managers/leaders are called upon to act, react and respond to situations quickly, often with little time to ponder or mull over their decisions. This test therefore partly mirrors this climate.

- **SECTION 1 Verbal Reasoning**
(15 minutes).
This section of the test assesses your ability to work with words, vocabulary and reading comprehension and grammar.
- **SECTION 2 Numeric Reasoning**
(10 minutes).
This section of the test assesses your ability to work with numbers.
- **SECTION 3 Logical Reasoning**
(20 minutes).
This section of the test assesses your ability to think carefully and analytically
- **SECTION 4 Visual/Spatial Reasoning**
(15 minutes).
This section of the test assesses your ability to work with shapes and visual patterns.
- **SECTION 5 Leadership and Managements Scenario Reasoning**
(un-timed but max of 30 minutes).
This section of the tests assesses you ability to select the most appropriate actions given the circumstances described in each situation.

The LMAT™ verbal reasoning section is the first in the test. You will select from several options or type your answers straight into the computer. If an individual finishes a section of the test before the allocated time is up, he or she can revisit any questions that have been skipped. If time is up, the individual will have a few minutes to stop and take a moment to compose him or herself before moving on to the next test section (when they click the section start button). In the last section there is no timing aspect, except a maximum allowable time of 30 minutes.

The LMAT™ is a standardized test. There are multiple forms of the LMAT™ that are equivalent (which enables individuals to re-take the test over time without over exposing the test material or jeopardizing test content security).

WHY IS THE LMAT™ ONLY ON-LINE?

There are certainly advantages and disadvantages associated with computerized testing. Probably the biggest advantages are that you can take the on-line assessment just about any time and anywhere that supervision is available and you can take it in a small room with just a few other people, instead of in a large auditorium with hundreds of other stressed people. It also helps to instantly update norms every time a questionnaire is completed.

On the other hand, it can be easier to misread a computer screen than it is to misread printed material, and it can be distracting looking back and forth from the computer screen to your scratch paper. On balance, we believe the on-line system offers more advantages than paper and pencil testing methods.

PACING AND ACCURACY

Although time is limited on the LMAT™ (in the first 4 sections), working too quickly can negatively impact one's score. Many questions or problems hinge on subtle points, and most require careful reading of the setup. Because our early school and college education typically puts heavy emphasis on considerable amounts of reading, many people will follow their academic conditioning and read the questions quickly, looking only for the gist of what the question is asking, which can be a mistake when taking the LMAT™. Once they have quickly read a question, many people mark their answer and move on, confident they have answered it correctly. Later, many are amazed to discover that they were incorrect because they either misread some part of the problem or overlooked more subtle points.

SCORING THE LMAT™

The five major parts of the LMAT™ are scored independently. You will receive an LMAT™ score (0 to 50) on each section. Each question is worth 2 points. You will also receive a total LMAT™ score (out of 500 in total). This will be expressed as a

percentage. In addition, you will be assigned a percentile ranking, which gives the percentage of test-takers with scores both above and below yours. In other words, 90th percentile means you scored higher than 89% of other LMAT™ takers, or only 10% of LMAT™ takers scored higher than you did. These percentiles were determined based on the many thousands of users who have already taken this test. We then adjusted these percentiles based on the entire database distribution. Hence, the percentiles we present reflect your score compared with all of the people in the entire database, which is continually being updated as more and more people go through the assessment.

THE LIMITATIONS OF TESTING

Much debate surrounds tests of cognition, and reasoning ability. Some researchers claim that the tests measure cultural knowledge and understanding, not innate intelligence. Critics even suggest that some of these types of tests are racially and/or culturally biased. Outside factors, such as where you grow up, what kind of school you attended, and how much school you completed contribute substantially to the development of intelligence. However, it is not yet clearly understood what those factors are, or how they work. It is widely agreed that standardized tests, like the LMAT™, therefore do not accurately reflect all forms of intelligence.

Obviously, cultural knowledge, creativity, wisdom, common sense and social sensitivity are not measured in tests like the LMAT™, but these factors most likely contribute significantly to a person's intelligence. Still, there are some people who feel strongly that intelligence or mental reasoning tests are one of the best ways to predict "potential" or future performance. These proponents can be better predictors of future success than other methods, such as interviews, exercises, references etc.

Test taking tips and strategies

BEFORE THE TEST

Get adequate rest the night before

Before the test, try to relax as much as possible. Research shows a person who is relaxed and alert usually does much better than someone who is tense during a test or an exam. Get enough sleep the night before the test. Also, if your LMAT™ is in the morning, consume a light breakfast, as a heavy one might make you drowsy. If you are ill, you shouldn't take the test; try to re-schedule it.

Wear comfortable clothes

Wear comfortable clothes to your LMAT™ test center. It might be a good idea to carry a sweater or a jacket, in case you start feeling cold. Also make a check list well in advance of what all you need for the test and get everything ready the night before (i.e. a watch).

Practice, practice, practice. When you spend time practicing questions, you will become very comfortable with the type of questions found on the first four sections of this test (found in tests such as the SAT, GRE, GMAT etc). You will then quickly realize whether you need to brush up your skills in any particular areas.

Don't forget, because you cannot use any reference books or tools such as calculators or PDAs during the test, so you should always practice without using them at all.

AS YOU START THE TEST

Be aware

It is helpful to become familiar with the type of questions that are used in the LMAT™. For this reason, sample questions are shown at the end of this booklet for each of the five sections of this test. There are also 3 on-line sample questions that you can try as you start each section.

Use the sample questions experience

Each section of the LMAT™ (except the last which has only one) has 3 sample questions. These sample questions are similar to the ones you see throughout the subsequent section. In fact, in many cases the principles or approaches to reach an

answer will almost exactly the same. You should therefore use the experience you gain from answering the samples as much as you can.

Keep careful track of time

You should always be aware of how long each section is and the time limits (keeping a careful watch on how much time you have left as you go). This will help you pace yourself through the test. There is also a countdown "clock" at the bottom of your browser screen. If you know that a given section is 15 minutes total time for 25 questions, then you know you should be answering each question in less than a minute. Most people will not necessarily finish all of the questions in each of the first four sections in the time allowed, but try to get through most test questions by working quickly, yet accurately.

Know the directions for each question

Going through the sample questions thoroughly beforehand will save you valuable time. But remember that the directions for the questions in the LMAT™ might be slightly different from the ones in your practice material. So always read any instructions, but do so quickly.

Read the questions carefully

It is impossible to overstate the importance of careful reading. The most common pitfall LMAT™ test takers stumble into is answering the question they thought they read, instead of the one the test asked. There is a big difference between a question asking "Which of the following may be true?" and one asking "Which of the following may not be true?" The test writers deliberately include answer choices that correlate to common misinterpretations of the questions.

Use the scratch or rough paper the test center provides

You are not allowed to bring paper in to the LMAT™ test center but should be provided with scratch paper by the test administrators at the center. Always use scratch paper to make quick notes for yourself or for solving logical, numerical or mathematical questions.

Use your scrap paper for every question

No matter how easy a question appears, you should utilize your scrap paper. Seeing a calculation on paper will help you avoid easy mistakes and the answer choices designed to exploit them.

Read every answer choice

Don't settle for choosing the first option that seems right to you. You may find another answer choice that is even better than the one you initially selected. Eliminate the ones you know are wrong. Carefully analyze the remaining choices with a focus on identifying the one that presents the most likely answer.

NEVER assume or use any information that the question fails to give you

This is NOT an assessment of how much you know about things in general! Consider ONLY the information given in each reading question when choosing among the alternative responses.

The questions at the beginning are the most important

Because the LMAT™ is highly speeded, and most people do not finish answering all the test questions, it is to your advantage to work through the test questions from the start of the section rather than skipping too far ahead. You will also gain no advantage from simply clicking on answers without reading each question.

DURING THE TEST

Be very sure of your answer before proceeding

Always remember that with the LMAT™, if you select an answer, you cannot go back and change it. However, you can still leave the difficult questions for the end or you can return to a question you have simply skipped, if you still have extra time.

Do not get bogged down with complicated or lengthy calculations

LMAT™ questions are deliberately designed to make very long and complicated calculations unnecessary. You are usually overlooking a shortcut if you find yourself getting bogged down in this way.

Don't forget, the "guesstimating" technique is extremely effective on this assessment. For example, on many occasions, the answer to a question is a value, and the values given in the answer choices will not be very close to each other. As a result, you can save time by 'guesstimating.' For example, if you know the value you're looking for is about 30%, and the answer choices are 4%, 13%, 29%, 47%, and 81%, you can safely guess that the correct answer is 29%. By using this technique (especially when you are under time pressure) you can save yourself a lot of time, and avoid getting caught up in a longer calculation that might have resulted in a mathematical error!

Use guessing intelligently (the "2 out of 5" rule)

If you can eliminate even one of the answer-choices, guessing can be advantageous. Many questions in the LMAT™ offer 5 options from which to choose. Typically, two of these are attractive options/answers. One is correct; the other either intentionally misleading or only partially correct. The other three options/answers are usually credible but deliberately not close to the correct answer. This makes educated guessing on the LMAT™ immensely effective. If you can dismiss the three more unlikely choices, your probability of answering the question successfully will increase from 20% to 30%.

Selection by elimination

When you don't know the answers to some questions, try and use the method of elimination. You may have a very good idea of which option cannot be the answer. Immediately, eliminate such options. It narrows down your guess to just maybe two options and sometimes down to one.

Learn how to work backwards

If you are completely stuck on a question, you can always try plugging in an answer choice and work backwards to see if it makes sense. When you use this technique, it is suggested that you start with the choice giving the middle value. Even if the middle value does not answer the question, it might tell you if you need to go higher or lower. You will have narrowed 5 choices down to 2 (or 4 to 2 if there are only 4 options) and this might make an educated guess worthwhile.

Convert quantities freely

There are often shortcuts available to you if you can recognize relationships between numbers or values used in the problems. Keep in mind, the LMAT™ test writers do not haphazardly select numbers for different alternatives. This technique is especially useful in narrowing down likely answer choices.

In questions that ask you to select a valid conclusion, always choose the one conclusion that must definitely follow from the information you are given

In questions that ask you to find the invalid alternative, choose the one conclusion that does not definitely follow from the information.

Pay special attention to words like “all,” “some,” or “none” when you read the factual information each question gives you

Other qualifying words such as “other than,” “only” or “unless” are important, too. These words can play a critical part in precisely specifying the facts to be used in your reasoning.

Pay attention to negative prefixes also, such as non-, un-, or dis-

These can be crucial to specifying the basic facts in the paragraph.

Pay special attention to negative numbers when they are used in some questions

Of course, when you are asked to multiply 2 negative numbers it always creates a positive one.

Pay close attention to the word “ONLY” and to the phrase “IF AND ONLY IF”

Saying “The door will open IF AND ONLY IF both keys are used” sets up a highly specific condition that must be met. There is exactly one way to open the door – you must use both keys. By contrast, if the sentence says, “The door will open if the key is used,” there may be several ways to open the door besides by using the key.

The questions in the assessment will vary in difficulty level, and difficult questions will be mixed in with easier ones throughout the assessment. When you encounter a question that is difficult for you, try drawing diagrams or other schematic notes on the “scratch” paper provided to support and confirm your thought processes (and bear in mind that you can stop working on a difficult question temporarily and return to it later).

Try several “patterned” alternative

On visual/spatial questions be aware that questions often follow themes, such as particular patterns, sequences, shape rotations, sizes and mirrors etc. Try several of these in your mind or on your scratch paper before you select your final answer.

Don’t stick to one question for too long

You should have a good estimate of how much time you can give to a particular question. Don’t get stuck on one particular question for too long. This might cause you to lose precious time and miss questions you could have easily done. Try to work efficiently and quickly.

Aim to answer as many questions as you can

Random guessing is not worthwhile in the LMAT™ but if you have time, complete more questions in each section by making educated estimates-this may significantly boost your score.

FROM SECTION TO SECTION TO THE END OF THE TEST

Compose yourself between sections of the test. In the first 4 timed sections of the LMAT™ you have between 10 and 20 minutes of total test time

This is just over 30 seconds per question on average for the verbal and visual/spatial reasoning sections of the test, 24 seconds for the numeric and 48 seconds for the logical reasoning sections of the test. Although you therefore need to pace yourself well through each section, you do not need to go straight on to the next section until you are ready. The test supervisor will give you a minimum of 2 minutes between sections in which time you can clear your mind of the last section and start to focus on the next, reading the sample questions provided before you begin.

Take your time on the last section

The last section in the LMAT™ (scenario-based reasoning) is about 'real-life' leadership choices that have to be made. Every question needs to be answered, so this section is un-timed (although you have a maximum of 30 minutes). Most people take 15-20 minutes to complete this section but take your time. Accuracy is the most important outcome in this instance.

Do not underestimate the role that endurance plays on the LMAT™

Half the battle is just making it through all of the sections without becoming overly stressed or fatigued. Condition yourself by taking practice tests.

Don't rush

The LMAT™ Test is about optimizing your effort. Finishing the test first is not what is most important. You should devote just the right amount of time to each question. Maximizing your marks in a given period of time is your aim. So don't rush it (even when the temptation to quickly tick those remaining answers is high) as that might cost you valuable marks.

Don't panic

No matter what happens, DON'T PANIC. Keep your cool all the time, even when you don't know the answer. Once you panic, you might even answer the easiest questions incorrectly. If you feel yourself getting tense, take a short break between sections, ask for a glass of water, close your eyes, take deep breaths and calm yourself down.

SECTION 2

Numeric Reasoning

This section of the test assesses your ability to work with numbers.

Sample Questions

Before you start the LMAT™ test for real, try the following sample questions for this section:

- 1. Create a proportion using four of these numbers**

30 270 540 45 405

Answer = 270 is to 30 as 405 is to 45 (both these sets of numbers are in the ratio 9:1)

- 2. What is 165% of 50?**

Answer = 82.5

- 3. What number should come next in the sequence?**

3 6 12 24 48

Answer = 96 (progressions are doubling each time)

SECTION 3

Logical Reasoning

This section of the test assesses your ability to think carefully and analytically.

Sample Questions

Before you start the LMAT™ test for real, try the following sample questions for this section:

1. **40% of the people of a certain area suffer from Diabetes, 25% suffer from Epilepsy and 10% suffer from both. What % of the people do not suffer from either of the diseases?**

A) 30% B) 35% C) 40% D) 45% E) 50%

Answer = D

Solution:

% of people suffering from Diabetes = 40. % of people suffering from Epilepsy = 25.

% of people suffering from both, Diabetes and Epilepsy = 10.

The % of people suffering from either Diabetes or Epilepsy = $40 + 25 - 10 = 65 - 10 = 55$.

Total % of people in the locality = 100.

Hence the percentage of people suffering from neither of the diseases = $100 - 55 = 45$.

2. **The cost of an electronic organiser at 20% discount is \$100. Find its actual price.**

A) \$125 B) \$130 C) \$225 D) \$335 E) \$105

Answer: A

Solution:

Let the actual price of the electronic organiser be \$x.

$x - 0.2x = 100$; or $0.8x = 100$; or $x = \$125$.

3. **It takes 16 days for 48 women to complete a job that requires 16 men to complete in 24 days. 12 men initiate the work and after 14 days, 12 women join them. How many days will they together take to complete the job?**

A) 12 B) 21 C) 6 D) 24 E) 16

Answer = A

Solution:

*Total work = Number of men * Number of days = Number of women * Number of days.*

*Or, $16 \text{ men} * 24 \text{ days} = 48 \text{ women} * 16 \text{ days}$. Therefore, $48 \text{ women} = (16 * 24) / 16 = 24 \text{ men}$;*

or 1 man is as efficient as 2 women are.

*Now, 12 men work for 14 days. The remaining work, $(16 * 24) - (12 * 14) = 216 \text{ man-day}$.*

Since 12 women, that are equivalent to 6 men join the 12 men, effective strength = $12 + 6 = 18 \text{ men}$.

Number of days to complete remaining 216 man-days of work = $216 / 18 = 12 \text{ days}$.

SECTION 4

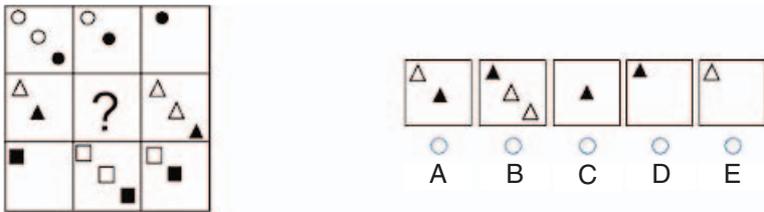
Visual/Spatial Reasoning

This section of the test assesses your ability to work with shapes and visual patterns.

Sample Questions

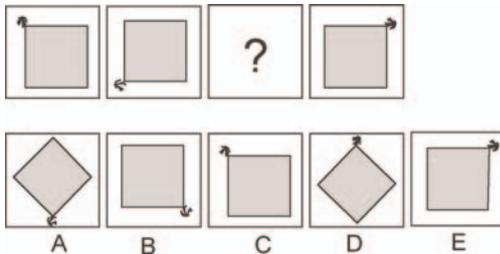
Before you start the LMAT™ test for real, try the following sample questions for this section:

1. Which square belongs in the centre of this grid?



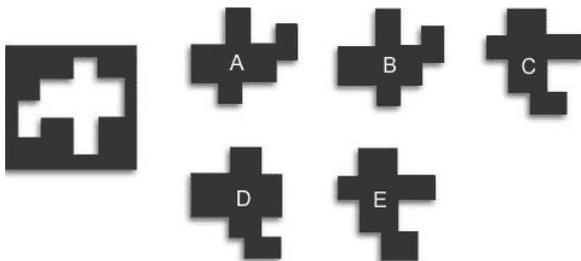
Answer = C (all of these boxes have 3, 2 and 1 objects and run diagonally right top right to bottom left)

2. Find the picture that follows logically in amongst the four below



Answer = B (shape is rotating 90 degrees anti-clockwise each time)

3. Pick the piece that's missing from the diagram on the left



Answer = C (it is the only proportional fit on all sides)

SECTION 5

Leadership and Management Scenario Reasoning

Measuring an individual's decision-making and problem-solving skills.

Sample Questions

Before you start the LMAT™ test for real, try the following sample questions for this section:

Read the following two scenarios described below carefully. Decide what you would actually do as a leader in the circumstances and then select the option that you think would be best in your opinion.

1. **A few individuals on your usually high performing team have been underperforming in minor ways for a few weeks but you have said nothing so far. What would you do now?**
- A) Call the whole team together to discuss the need for better performance than the past few weeks.**
 - B) Talk to lower performing people on the team individually (one at a time).**
 - C) Ask one of the more trusted and longer experienced people on team what they think you should do.**
 - D) Do nothing at this stage as performance has yet to really suffer badly.**

Answer = B

B is best because not all individuals are poor performing.

A is second best as at least you can talk about lower overall team performance (which may make those people most responsible lift their performance – without others knowing who is involved).

C looks OK on the surface but not so good in allowing the team member to decide what to do next (after all you are the leader and should be inviting input rather than decisions).

D is also not very helpful from a leadership perspective as it lets the situation drift.

2. **You have decided to introduce a new budgeting process for your area (after much argument and dissatisfaction about the efficiency and accuracy of the old one). You would:**
- A) Prepare a background paper or report on the new approach you are proposing and why you have chosen it (and circulate it to all team members).**
 - B) Gather input from every individual on your team on what they would like to see in the new approach before finalizing your thinking by yourself and then presenting your new system in a group meeting.**
 - C) Talk to other supervisors about which budgeting approaches have tended to work best in their teams (and why) before holding a group brainstorming session on what should be done with your own team.**
 - D) Ask your own manager what he or she would like to see in place.**

Answer = B

Option B is considered to be the most appropriate here because a budgeting process has to be meaningful to your team members most of all (as well as having high relevance to their work). The team's input and feedback is therefore critical.

Option C is second best because other areas of the enterprise may have some useful feedback to offer to help you to improve your own approach. However, your budgeting approach will not be the same and should always relate entirely to the work of your team.

Option A is not an ideal response because this would be to impose a set of methods or systems on your team without their input or comment (which may cause them to feel very uncommitted to them).

Option D is also not an ideal response as it defers the decision to higher authority so that they and not you as the leader make the decision.