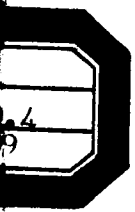


SINGLE-VOLUME EDITION

100 PASSAGES

TO DEVELOP READING COMPREHENSION



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This program is designed to enable average and better readers to develop into accomplished readers.

The material consists of 100 short, interesting reading selections of intrinsic value. The selections are arranged in ascending order of reading difficulty, beginning at the ninth grade reader level.

Each passage is accompanied by questions that elicit nine essential elements of the reading process. Thus, *100 Passages* enables teacher and student to concentrate on the student's *method* of reading, rather than on the *contents* of a particular passage. It develops conscious control over the thought processes which constitute efficient reading. Through nine distinct types of questions, the student learns to recognize the relationships of ideas, facts, and supporting material that make up the complex of communication.

Such better understanding of the thinking process leads naturally to better reading habits.

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Rachel Carson, *The Sea Around Us*, Oxford University Press

Casner and Gabriel, *The Story of American Democracy*, Harcourt, Brace and Co.

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Ralph M. Evans, *An Introduction to Color*, John Wiley and Sons, Inc.

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Douglas Tuomey, *The Home Mechanic*, The Macmillan Co.

William C. Vergara, *Science in Everyday Things*, Harper and Brothers

H. G. Wells, *Outline of History*, Doubleday

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TO THE STUDENT

You have decided to put some of your time and energy into improving your reading comprehension. You have opened this book and are ready — under the guidance of an instructor — to work with the passages within it.

You will get more benefit from your efforts if you have a clear idea of what is involved in improving comprehension, and how this book is intended to help you.

How do you improve comprehension? Improving comprehension is a process — a process of learning. This process has two main stages: understanding and application.

The essential thing to understand about comprehension is that your understanding of a passage is not *one* big thought in your mind, something like a wrapped-up package labeled “comprehension of a passage.” Rather, your understanding of a passage is a number of *comprehensions*.

A passage is a collection of thoughts projected from one human being — the author — to you, the reader. True, these thoughts of the author may add up to one main idea which the author wishes to get across. But supporting this main idea are many smaller, subordinate ideas, details, and facts, each of which contributes to the overall thought of the passage. To understand, to “comprehend” a passage, you must understand each of the supporting ideas, and how they fit together.

To comprehend a passage fully, you must be able to understand other aspects of it. You may, for example, want to get clearly in mind what the real subject of the passage is, what the author's purpose was in writing the passage, even what effect the thought in the passage might have on some matter not even mentioned in the passage.

To grasp this idea that there are *comprehensions*, rather than one big comprehension in reading, you can think of a passage as a house. You can think of it in terms of its convenience. You can think about its impressiveness. You can think of each room in the house; or you can consider and understand separately its electrical system, its plumbing system, and so forth. Add all these separate comprehensions up, and you have your “comprehension” of the house as a whole, as an entity.

Coming back to reading, you can analyze, or think about, a passage in many ways. In *100 Passages*, we have chosen to work with the nine ways of thinking which we consider the most important.

These nine ways of thinking involve asking the following questions:

1. **What is the entire passage about?** We call the answer to this question the SUBJECT MATTER.
2. **What are the essential “points” of the passage?** Each main idea which is supported by other material we call a GENERALIZATION.

3. **What are the specific facts or opinions used to clarify or to prove the main thought?** We call the answer to this **DETAIL**.
4. **What does the author want you to do or to believe?** To get you to do something or to believe something, the author must first establish a **Generalization**. Once he has established his **Generalization**, he can then explicitly state, or strongly imply, a conclusion based upon it. Where a conclusion may be a call to some course of action, or a belief to be adopted, we call this kind of thinking **FINDING THE SIGNIFICANCE**.
5. **What conclusions can be reasonably drawn from the Generalizations or the Details of the passage, which the author has not explicitly stated?** We call this kind of thinking **DRAWING CONCLUSIONS**.
6. **How can we apply the Conclusions we make about the passage to a new situation, not treated in the passage?** We call this kind of thinking **MAKING APPLICATIONS**.
7. **What is the feeling or attitude of the author toward the subject matter of the passage?** We call the answer to this **TONE AND ATTITUDE**.
8. **What is the precise meaning of a word as used in the passage?** We call the answer to this **VOCABULARY IN CONTEXT**.
9. **What can be observed about the organization of the passage? How are the generalizations related to each other? What kinds of proof does the author use?** The answer to these questions involves understanding **COMMUNICATION TECHNIQUES**.

You will notice that questions 1 through 4 concern looking for the "plain sense" of a passage — what it says. Questions 5, 6, and 7 ask you to take further steps in thinking about the passage, to draw conclusions about it. Question 8, the vocabulary type of question, requires a very subtle type of comprehension, discriminating among shades of meaning of words used in the passage. Question 9 is concerned with considerations of form rather than content, with the **HOW** of the writing, not with the **WHAT** of it — with the way in which the written passage is constructed to communicate the author's message.

Once you have mastered these nine ways of thinking about a passage, you will have developed the analytical skills of reading. You can see the parts of a passage, and how these parts fit together. You can see the passage as a living tissue of ideas and facts which form a clear pattern in your mind. When you can do this with *100 Passages*, you will find yourself more expert at knowing what to look for and how to find what you want more quickly and accurately whenever you read.

This analytical approach can be applied to other kinds of "comprehension" besides reading. In the fine arts, for example, people wonder what there is to "understand" about paintings. When they are taught about the elements of painting — of line, color, tone, composition — they find that pictures become more meaningful.

So much for the *theory* of developing comprehension. As for the application — you are aware that all the understanding in the world won't make you skillful without practice. Here is how *100 Passages* is set up for you.

ORGANIZATION OF THIS BOOK

The 100 passages in this booklet have been culled from fields in which you would be expected to be able to read intelligently: the sciences - biology, chemistry, astronomy, physics, and geology; the humanities - philosophy, literature, criticism; and social studies - geography, history, law, and political economy. They are arranged in order of difficulty.

Accompanying each passage are questions about it. Questions are so arranged that you can work through them in either of two ways:

1. You will notice that each question is labeled as to which one of the nine types of thinking is required to solve it. Here are the types of questions, their symbols, and the decimal number that designates each:

Decimal	Type	Symbol
.1	SUBJECT MATTER	SM
.2	GENERALIZATION	G
.3	DETAIL	D
.4	SIGNIFICANCE	SIG
.5	CONCLUSION	C
.6	APPLICATION	A
.7	TONE AND ATTITUDE	T
.8	VOCABULARY	V
.9	COMMUNICATION TECHNIQUE	CT

If your teacher wishes you to get practice in *one* of the nine types of thinking, you can answer each SUBJECT MATTER question or each GENERALIZATION question and move from passage 1 to passage 2 to passage 3 and so on.

2. If your teacher wishes you to get experience with a variety of questions, you can stay with passage 1, do all the questions on it, and then move to passage 2, and so on.

Questions based on passages 91 through 100 are not labeled. In addition to answering each question, you are asked to designate the type of question, also. You can see that this kind of exercise is aimed at helping you to become as sophisticated as possible about reading.

Successful learning depends upon the proper attitude as well as on sound technique. If you are willing to do the thinking, make the effort, and apply the theory, your reading comprehension will improve.

My steamboat voyage to Albany and back has turned out rather more favorably than I had expected. The distance from New York to Albany is 150 miles. I ran it up within 32 hours and down in 30. I had a light breeze blowing against me the whole way both going and coming, and the voyage has been performed wholly by the power of the steam engine. I overtook many boats beating against the wind and parted with them as if they had been at anchor. The power of boats run by steam is now fully proved. The morning I left New York there were not, perhaps, thirty persons in the city who believed that the boat would ever move one mile per hour or be the least use.

Questions for Passage #1

Find the best answer to each question. Circle the letter of your answer.

1.1
SUBJECT MATTER

Choose the best title for this passage.

- A. The Success of the Steamboat
- B. The Small Faith of Small People
- C. The Effectiveness of the Steam Engine
- D. A Trip to Albany
- E. The Speed of the Steamboat

1.2
GENERALIZATION

The author's main thought is that

- A. the steamboat voyage turned out more favorably than he had expected.
- B. the author's steamboat trip was successful.
- C. most people doubted that the steamboat would be of the least use.
- D. the voyage was performed wholly by the power of the steam engine.
- E. the steamboat, unlike a sailboat, can be used successfully with the wind against it.

1.5 (a)
CONCLUSION

Assuming that Poughkeepsie is midway between New York and Albany, and that Fulton's speed was constant, the leg of the author's trip from Poughkeepsie to New York must have taken

- A. 5 hours.
- B. 7 hours.
- C. 10 hours.
- D. 15 hours.
- E. 20 hours.

1.5 (b)
CONCLUSION

We can conclude from this passage that

- A. many sailboats were at anchor when the author traveled the Hudson to Albany.
- B. sailboats were having more difficulty with winds on the author's trip north than on the reverse leg of his journey.
- C. no sailboat could have ever made Albany from New York in less than 32 hours.
- D. sailboats were having difficulty with headwinds on both the author's upriver and downriver trips.
- E. the distance from Albany to New York is shorter than that from New York to Albany.

1.9
COMMUNICATION
TECHNIQUE

The author states that he had a "light breeze blowing against me the whole way both going and coming" to

- A. provide local color in his description of the trip.
- B. show why sails would not be an effective means of power.
- C. indicate how pleasant his trip was.
- D. prove the effectiveness of the steam engine.
- E. do none of the above.

Men in all ways are better than they seem. They like flattery for the moment, but they know the truth for their own. It is foolish cowardice which keeps us from trusting them and speaking to them rude truth. They resent your honesty for an instant; they will thank you for it always. What is it we heartily wish of each other? Is it to be pleased and flattered? No, but to be convicted and exposed, to be shamed out of our nonsense of all kinds, and made men of, instead of ghosts and phantoms. We are weary of gliding ghostlike through the world, which is itself so slight and unreal. We crave a sense of reality, though it comes in strokes of pain.

Questions for Passage #2

Find the best answer to each question. Circle the letter of your answer.

2.1
SUBJECT MATTER

This passage is mainly about

- A. the value of men.
- B. the need for trusting people.
- C. the need for becoming a real person in a real world.
- D. the need to be able to endure pain.
- E. the need for truth in human relations.

2.2
GENERALIZATION

The author's main thought is that

- A. flattery is always acceptable.
- B. it is foolish cowardice which holds back our trust.
- C. we must be shamed out of our nonsense.
- D. reality with its pain can make men better.
- E. honesty is sometimes resented but often admired.

2.4
SIGNIFICANCE

The author advises us to

- A. stop being a ghost.
- B. bear in mind that men like flattery.
- C. face up to, and express, the truth.
- D. stop being a coward even though it may make enemies.
- E. thank people when they tell the unvarnished truth.

2.9
COMMUNICATION
TECHNIQUE

The author points out that "men are better than they seem" in order to show that

- A. it is foolish for us to be cowardly and fear our neighbors.
- B. we need not fear to tell people the truth.
- C. people are not really looking for flattery.
- D. they are weary of being ghosts.
- E. we will find people grateful if we abandon nonsense of all kinds.

Blood vessels running all through the lungs carry blood to each air sac, or alveolus, and then back again to the heart. Only the thin wall of the air sac and the thin wall of a capillary are between the air and the blood. So oxygen easily diffuses from the air sacs through the walls into the blood, while carbon dioxide easily diffuses from the blood through the walls into the air sacs.

When blood is sent to the lungs by the heart, it has come back from the cells in the rest of the body. So the blood that goes into the wall of an air sac contains much dissolved carbon dioxide but very little oxygen. At the same time, the air that goes into the air sac contains much oxygen but very little carbon dioxide. You have learned that dissolved materials always diffuse from where there is more of them to where there is less. Oxygen from the air dissolves in the moisture on the lining of the air sac and diffuses through the lining into the blood. Meanwhile, carbon dioxide diffuses from the blood into the air sac. The blood then flows from the lungs back to the heart, which sends it out to all other parts of the body.

Soon after air goes into an air sac, it gives up some of its oxygen and takes in some carbon dioxide from the blood. To keep diffusion going as it should, this carbon dioxide must be gotten rid of. Breathing, which is caused by movements of the chest, forces the used air out of the air sacs in your lungs and brings in fresh air. The breathing muscles are controlled automatically so that you breathe at the proper rate to keep your air sacs supplied with fresh air. Ordinarily, you breathe about twenty-two times a minute. Of course, you breathe faster when you are exercising and slower when you are resting. Fresh air is brought into your lungs when you breathe in, or inhale, while used air is forced out of your lungs when you breathe out, or exhale.

Some people think that all the oxygen is taken out of the air in the lungs and that what we breathe out is pure carbon dioxide. But these ideas are not correct. Air is a mixture of gases that is mostly nitrogen. This gas is not used in the body. So the amount of nitrogen does not change as air is breathed in and out. But while air is in the lungs, it is changed in three ways: (1) About one-fifth of the oxygen in the air goes into the blood. (2) An almost equal amount of carbon dioxide comes out of the blood into the air. (3) Moisture from the linings of the air passages and air sacs evaporates until the air is almost saturated.

_____ Questions for Passage #3 _____

Find the best answer to each question. Circle the letter of your answer.

3.2 (a)
GENERALIZATION

In the respiratory process, the following action takes place:

- A. diffusion of blood through capillary walls into air sacs.
- B. diffusion of carbon dioxide through capillary and air sac walls into the blood.
- C. diffusion of oxygen through the air sac and capillary walls into the blood.
- D. exchange of alveoli and oxygen within air sacs.
- E. none of the above.

3.2 (b)
GENERALIZATION

While air is in the lungs, it changes in the following way:

- A. nitrogen is absorbed from the air.
- B. about one-fifth of the carbon dioxide and about one-half of the oxygen in the air goes into the blood.
- C. the moisture in the air is almost completely evaporated.
- D. about one-fifth of the oxygen in the air goes into the blood and an equivalent amount of carbon dioxide enters the air from the blood.
- E. none of the above changes are correct.

3.3
DETAIL

The number of times per minute that you breathe is

- A. independent of your rate of exercise.
- B. fixed at twenty-two times per minute.
- C. influenced by your age and sex.
- D. controlled automatically by an unspecified body mechanism.
- E. dependent upon the amount of fresh air available to you at any given time.

3.5
CONCLUSION

The process by which carbon dioxide and oxygen are transferred does *not* depend on

- A. the presence of nitrogen in the blood.
- B. the muscles of the thoracic cavity.
- C. the flow of blood.
- D. the moisture in the air sac linings.
- E. the process of diffusion.

3.7
TONE

The author's style in this passage can best be described as

- A. informal and matter of fact.
- B. pedantic.
- C. impersonal.
- D. matter of fact.
- E. personal.

Another thing to remember in connection with concrete is that you are not allowed very much leeway for errors in either measurements or location. Once you have a solid mass of concrete set in place, it is going to stay there. You have a difficult job ahead of you if you try to remedy a mistake. Make very sure, before you fill the form, that everything is where and how you want it.

There are numerous rules regarding the proper mixing, handling, and finishing of concrete, but the essential one concerns the amount of water to use. The less water in the mix, the less the finished job will shrink. The less water used, the harder and more enduring the job after it has set.

The amateur concrete worker is plagued with two desires. One is to use enough water to have the concrete nice and soft and easy to push around. You have been warned against that. The second is to take off the wooden forms too early, to see what the job looks like. That is really fatal. If the forms are stripped off too soon, while the concrete is still "green," two things are likely to happen — you are almost sure to break off corners or edges, and you are likely to cause a major crack or defect in the body of the work. An excellent rule is to wait until you are sure the concrete is properly hardened, and then wait another day before removing the forms.

Questions for Passage #4

4.1
SUBJECT MATTER

The best title for this selection would be:

- A. Rules for Working with Concrete.
- B. Concrete and Its Uses.
- C. Concrete, the Homeowner's Joy.
- D. Concrete, a Test of Character.
- E. How to Finish Concrete.

4.2
GENERALIZATION

Two of the main thoughts in this passage are (1) preparation of forms for the concrete must be thorough, and (2) forms must be allowed to remain on long enough. The third main idea is

- A. taking off forms beforehand will probably cause a crack in the body of the work.
- B. trying to make changes after concrete has been poured is not recommended.
- C. mixing concrete properly will make it very hard and strong.
- D. keeping concrete from shrinking as much as possible is desirable.
- E. using as little water as possible is recommended.

4.4
SIGNIFICANCE

In mixing concrete, one of the desires the amateur must resist is to

- A. break off a corner to see if the "green" has gone.
- B. leave the form on too long.
- C. strip off the forms a day after the concrete has properly hardened.
- D. use too much water.
- E. use too little water.

4.5
CONCLUSION

A human quality apparently *not* essential in someone who works with concrete is

- A. carefulness.
- B. patience.
- C. self-control.
- D. sense of spatial relations.
- E. inventiveness.

4.8
VOCABULARY

By the concrete being too "green," the author means that the concrete has

- A. become discolored because of its contact with the wooden forms.
- B. become cracked.
- C. not yet cured.
- D. not dried out.
- E. not settled in place.

4.9
COMMUNICATION
TECHNIQUE

In instructing the reader in the intricacies of working with concrete, the author

- A. gives specific instances of concrete work that went wrong.
- B. allows the reader to find the solution to the problem from his own experience.
- C. overstates the dire consequences of an error.
- D. presents each problem and gives its solution.
- E. understates the things that may go wrong.

5

By learning the life cycle of insects, scientists have found ways to control insect pests. The scientists who study insects are called entomologists. Entomologists discover what an insect is like in each stage of its development, where it lives, and what it eats. From these facts, a plan for controlling the insect can often be worked out. For example, the eggs of the stalk borer are laid on the stems of wild plants in late summer and stay there all winter. They hatch in May or June, and then the larvae bore into the stems of the wild plants. Later, the larvae move on to cultivated plants, where they again bore into the stems. In August the larvae become pupae in the stems of the cultivated plants. About three weeks later, they come out as adults and lay their eggs on wild plants. Burning the wild plants in late autumn or early spring greatly reduces the number of stalk borers that attack cultivated plants.

Questions for Passage #5

5.1
SUBJECT MATTER

This paragraph centers on

- A. the life cycles of insects.
- B. scientists' use of their life cycles to control insect pests.
- C. the life cycle of the stalk borer.
- D. the role of wild plants in the control of the stalk borer.
- E. the work of entomologists.

5.2
GENERALIZATION

Select the sentence which best summarizes the main idea of the passage.

- A. The scientists who study insects are called entomologists.
- B. Burning the wild plants in late autumn or early spring greatly reduces the number of stalk borers that attack cultivated plants.
- C. By learning the life cycle of insects, scientists have found ways to control insect pests.
- D. Entomologists discover what an insect is like in each state of its development, where it lives, and what it eats.
- E. The extent of the damage caused by insects can only be established by entomologists.

5.3
DETAIL

Stalk borer adults appear

- A. and lay their eggs in cultivated plants.
- B. on wild plants reached by them as pupae.
- C. on, and bore into, stems of wild plants.
- D. on cultivated plants reached by them as larvae.
- E. from pupae in the stems of wild plants.

5.9
COMMUNICATION
TECHNIQUE

The author describes the life cycle of the stalk borer to show

- A. that entomologists are scientific.
- B. how complicated are the stages of an insect's development.
- C. the relationship between wild and cultivated plants.
- D. why burning the wild plants in the late autumn or early spring will reduce the number of stalk borers.
- E. how facts discovered about insects can be used to control them.

6

The soft pretzel, a lightly tanned delight, is quite distinct from its younger cousin, the hard and darker pretzel. Pretzel historians will tell you that this soft product originated in northern Italy about 600 A.D. A monk used the leftover strips of dough after baking bread by crossing the ends in familiar loops which represented children's arms folded in prayer. It was given to children who had learned their prayers as a little reward, or in Latin, "preiola." The idea then caught on over the Alps in Austria where the word became corrupted to "brezel," "bretzel," and finally, pretzel.

Questions for Passage #6

6.1
SUBJECT MATTER

This paragraph centers on

- A. pretzels.
- B. the difference between hard and soft pretzels.
- C. pretzels and religion.
- D. how we got the pretzel.
- E. what the pretzel means.

6.2
GENERALIZATION

The main thought here is that

- A. the creation of the pretzel showed the monk's ingenuity.
- B. the giving of a reward to children for successful learning showed the monk's understanding of psychology.
- C. the pretzel was created by a monk as a reward for children who had learned their prayers.
- D. the "carrot" is preferable to the "stick" in encouraging learning.
- E. expressed by none of the above.

6.3
DETAIL

The pretzel discussed by the author was

- A. an inducement to learn prayers.
- B. an historical accident.
- C. first known as a "bretzel."
- D. invented after the hard pretzel.
- E. created by the monk mainly to prevent waste.

6.7
TONE

The author uses the term *pretzel historian* to

- A. cast doubt on the information in the paragraph.
- B. designate the specific branch of historical research.
- C. be sarcastic.
- D. disclaim responsibility for the information in the passage.
- E. introduce a humorous note.

6.9
COMMUNICATION
TECHNIQUE

The author mentions the *hard pretzel* to

- A. prove that the light pretzel was invented before the dark pretzel.
- B. define the pretzel under discussion.
- C. show that the hard pretzel is coarser than the light pretzel.
- D. interest the reader.
- E. show his wide knowledge of pretzels.

7

Making a plaster patch a square foot or so in area is considerably more job than filling cracks, but there is no reason why the amateur should not attempt the repair if he makes his preparations properly.

Cut the edges around the opening cleanly, and wet them thoroughly. Make the mix of fresh plaster slightly stiffer (less water) than for the crack repair. Put on a base coat first, which means just enough to cover the lath, and see that it is below the face of the old edges. After this coat has set a little, mix another batch, slightly more fluid, and apply as a finish coat right over it, and smooth it out evenly with the old edges. This method is suggested because the weight of one full coating might be too much, and you would probably have some trouble keeping it in place on the lath.

To smooth off the finished coat nicely, take a straight, smooth piece of wood, with a more or less sharp edge long enough to span the patch, and work it across, back and forth over the new plaster. This will give you an even, smooth surface and avoid the necessity of troweling out any humps or filling in any depressions. In doing this kind of work, it is essential that the water be clean, and free from rust or dirt. If it is not, the patch will be discolored.

Questions for Passage #7

7.1
SUBJECT MATTER

Select the most appropriate title for this selection.

- A. Repairing Cracked Ceilings
- B. Methods of Mixing Plaster
- C. Finishing a Plaster Patch
- D. How to Get a Smooth Surface on a Plaster Patch
- E. How to Make a Plaster Patch

7.2
GENERALIZATION

In making a plaster patch, the passage does *not* say you should

- A. make the mix of fresh plaster softer (more water) than in filling a crack.
- B. use a straight piece of wood to work across the patch.
- C. use clean water.
- D. put on a base coat of plaster first.
- E. put a second coat over the first coat.

7.3
DETAIL

One of the important details mentioned in the passage makes it apparent that

- A. the first coating of plaster should be brought up even with the face of the edges of the patch.
- B. the ability of lath to retain plaster is limited.
- C. it is advisable to trowel out lumps and fill in depressions to obtain a smooth-surfaced patch.
- D. the amateur need have no fear about his ability to make a plaster patch.
- E. plaster is prone to develop breaks and cracks.

7.5
CONCLUSION

This passage has probably been taken from

- A. a technical manual for plasterers.
- B. an article in an encyclopedia about plaster.
- C. a newspaper advertisement.
- D. a "how-to-do-it" article in a magazine for homeowners.
- E. instructions on a bag of plaster.

7.8
VOCABULARY

By "lath" the author means

- A. a machine for shaping an article of wood.
- B. wooden lattice work used as the foundation for plaster.
- C. the foam or froth resulting from the mixing of plaster and water.
- D. the irregular cracks in the old plaster.
- E. the paint coating over the old plaster.

8

(1) Let us look briefly at the main organs — the lungs. (2) They let oxygen from the air into the blood and give out carbon dioxide. (3) Except for the parts taken up by the heart and the windpipe, the lungs fill almost the entire chest cavity. (4) Inside each lung the bronchial tubes fork like the branches of a tree. (5) That is, they divide and subdivide to form smaller and smaller tubes until they reach every part of the lungs. (6) The linings of all these air passages are covered with tiny living hairs, called cilia, that move back and forth. (7) The movements of the cilia sweep dust and other unwanted materials up and out of the air passages. (8) At the ends of the very smallest bronchial tubes, the air goes into many tiny cup-shaped parts. (9) These are the air sacs, or alveoli, which are arranged around the tubes somewhat like a bunch of grapes on a stem. (10) Scientists have estimated that a person's lungs contain about 600 million air sacs. (11) If the linings of all these sacs formed a single sheet, it would cover the walls of a room 20 feet long, 15 feet wide, and 10 feet high. (12) The lungs are very light, spongy organs because they contain so many bronchial tubes and air sacs.

Questions for Passage #8

8.1
SUBJECT MATTER

This passage is mainly about

- A. startling facts about the lungs.
- B. the structure of the respiratory system.
- C. the functioning of man's breathing apparatus.
- D. the structure of the lungs.
- E. the organs of the chest cavity.

8.3
DETAIL

The body rid itself of foreign particles which get into the lungs principally by means of

- A. hairs.
- B. alveoli.
- C. bronchial linings.
- D. coughing.
- E. an undisclosed mechanism.

8.5
CONCLUSION

The substance that appears to take up most of the space of the chest cavity is that comprising the

- A. windpipe.
- B. air sacs.
- C. heart.
- D. cilia.
- E. bronchi.

8.9
COMMUNICATION
TECHNIQUE

Which one of the following sentences from the passage deals with the functioning of the lungs?

- A. sentence (2)
- B. sentence (3)
- C. sentence (4)
- D. sentence (8)
- E. sentence (12)

9

Communication between villages and the nearest town was poor. Roads were bad; there was some attempt to keep them in order, but as each parish was responsible for its own section of road, the state of repair depended on the zeal of the parish officers. There was, however, little wheeled traffic except for farm coaches used by men of wealth. Most traffic was by means of pack horses. Travelers rode on horseback or walked. Since communication was so difficult, the local markets, held weekly at the nearest town, or the fairs, held annually at the greater cities, became important places for the exchange of goods of all kinds.

Questions for Passage #9

9.1
SUBJECT MATTER

This passage is primarily about

- A. traveling.
- B. fairs.
- C. communication.
- D. roads.
- E. the exchange of goods.

9.2
GENERALIZATION

In this passage the author's conclusion that local markets and fairs were important is based on his statement that

- A. communication between villages and towns was poor.
- B. roads were bad.
- C. there was little wheeled traffic.
- D. exchanges of goods took place at the markets.
- E. markets and fairs were held periodically.

9.3
DETAIL

Most traffic was not on wheels because

- A. most people could not afford this means of travel.
- B. springless coaches were uncomfortable.
- C. pack horses were better than coaches.
- D. roads were so bad.
- E. of an unspecified reason.

9.5
CONCLUSION

Poor roads were probably so because of

- A. the costliness of reforms.
- B. politics on a parish level.
- C. the competition between parishes.
- D. the paucity of traffic.
- E. the indolence of local authorities.

9.9
COMMUNICATION
TECHNIQUE

The author's statement about the importance of markets and fairs is

- A. a conclusion he draws on the basis of his main thought.
- B. an interesting fact he includes, although it does not bear strictly on the subject matter of the passage.
- C. apparently contradicted by the main thought.
- D. a historical development which took place after the time in which the main events of the passage occurred.
- E. a proof he uses to establish his main thought.

Man, even in the lower stages of development, possesses a faculty which, for want of a better name, I shall call *Number Sense*. This faculty permits him to recognize that something has changed in a small collection when, without his direct knowledge, an object has been removed from or added to the collection.

Number sense should not be confused with counting, which is probably of a much later vintage, and involves, as we shall see, a rather intricate mental process. Counting, so far as we know, is an attribute exclusively human, whereas some brute species seem to possess a rudimentary number sense akin to our own. At least, such is the opinion of competent observers of animal behavior, and the theory is supported by a weighty mass of evidence.

Many birds, for instance possess such a number sense. If a nest contains four eggs, one can safely be taken; but when two are removed, the bird generally deserts. In some unaccountably way the bird can distinguish two from three. But this faculty is by no means confined to birds. In fact, the most striking instance we know is that of the insect called the "solitary wasp." The mother wasp lays her eggs in individual cells and provides each egg with a number of live caterpillars on which the young feed when hatched. Now, the number of victims is remarkably constant for a given species of wasp. Some species provide 5, others, 12, others again as high as 24 caterpillars per cell. But most remarkable is the case of the *Genus Eumenus*, a variety in which the male is much smaller than the female. In some mysterious way the mother knows whether the egg will produce a male or a female grub and apportion the quantity of food accordingly; she does not change the species or size of the prey, but if the egg is male, she supplies it with five victims; if female, with ten.

The regularity in the action of the wasp and the fact that this action is connected with a fundamental function in the life of the insect make this last case less convincing than the one which follows. Here the action of the bird seems to border on the conscious:

A squire was determined to shoot a crow which made its nest in the watchtower of his estate. Repeatedly he tried to surprise the bird, but in vain: at the approach of man the crow would leave its nest. From a distant tree it would watchfully wait until the man had left the tower and then return to its nest. One day the squire hit upon a ruse: two men entered the tower, one remained within, the other came out and went on. But the bird was not deceived: it kept away until the man within came out. The experiment was repeated on the succeeding days with two, three, then four men, yet without success. Finally, five men were sent: as before, all entered the tower, and one remained while the other four came out and went away. Here the crow lost count. Unable to distinguish between four and five, it promptly returned to its nest.