APPENDIX-I

Questionnaire-A
Watson-Glaser’s Critical Thinking Appraisal

TEST 1: INERENCE

An inference is a conclusion a person can draw from certain observed or supposed facts. For example if the lights are on in a house and music can be heard coming from the house, a person might infer that someone is at home. But this inference may or may not be correct. Possibly the people in the house did not turn the lights and the radio off when they left the house.

_In this test, each exercise begins with a statement of facts that you are to regard as true._ After each statement of facts you will find several possible inferences- that is, conclusions that some persons might draw from the stated facts. Examine each inference separately, and make a decision as to its _degree_ of truth or falsity.

For each inference you will find spaces on the answer sheet labeled T, PT, ID, PF, and F. For each inference make a mark on the answer sheet under the appropriate heading as follows:

T    if you think the inference is definitely TRUE; that it probably follows beyond a reasonable doubt from the statement of facts given.

PT   if, in the lights of the facts given, you think the inference is PROBABLY TRUE; that it is more likely to be true than false.

ID   If you decide that there are INSUFFICIENT DATA; that you can not tell from the facts given whether the inference is likely to be true or false; if the facts provide no basis for judging one way or the other.

PF   if, in the lights of the facts given, you think the inference is PROBABLY FALSE; that it is more likely to be false than true.

F    if you think the inference is definitely FALSE; that it is wrong, either because it misinterprets the facts given, or because it contradicts the facts or necessary inferences from those facts.

Sometimes, in deciding whether an inference is probably true or probably false, you will have to use certain commonly accepted knowledge or information that practically every person has. This will be illustrated in the example that follows.

Look at the example in the next column; the correct answers are indicated in the block at the right.
Example
Two hundred students in their early teens voluntarily attended a recent weekend student conference in a Midwestern city. At this conference the topics of race relations and means of achieving lasting world peace were discussed, since these were the problems the students selected as being most vital in today’s world.

1. As a group the students who attended this conference showed a keener interest in broad social problems than do most other students in their early teens.
2. The majority of the students had not previously discussed the conference topics in their schools.
3. The students came from all sections of the country.
4. The students discussed mainly labor relations problems.
5. Some teenage students felt it worthwhile to discuss problems of race relations and ways of achieving world peace.

In the above example, inference 1 is probably true (PT) because (as in common knowledge) most people in their early teens do not show so much serious concern with broad social problems. It cannot be considered definitely true from the facts given because these facts do not tell how much concern other young teenagers may have. It is also possible that some of the students volunteered to attend mainly because they wanted a weekend outing.

Inference 2 is probably false (PF) because the students’ growing awareness of these topics probably stemmed at least in part from discussions with teachers and classmates.

There is no evidence for inference 3. Thus there are insufficient data (ID) for making a judgment on the matter.

Inference 4 is definitely false (F) because it is given in the statement of facts that the topics of race relations and means of achieving world peace were the problems chosen for discussion.

Inference 5 necessarily follows from the given facts; it therefore is true (T).

In the exercise that follow, more than one of the inferences from a given statement of facts may be true (T), or false (F), or probably true (PT), or probably false (PF), or have insufficient data (ID) to warrant any conclusion. Thus you are to judge each inference independently.

Make a heavy black mark in the space under the heading that you think best describes each inference. If you change an answer, erase it thoroughly. Make no extra marks on the answer sheet.
EXERCISES

In 1946 the United States Armed Forces conducted an experiment called "Operation Snowdrop" to find out what kinds of military men seemed to function best under severe arctic climatic conditions. Some of the factors examined were weight, age, blood pressure, and national origin. All of the participants in "Operation Snowdrop" were given a training course in how to survive and function in extreme cold. At the conclusion of the experiment it was found that only two factors among those studied distinguished between men whose performance was rated as "effective" and those rated as "not effective" on the arctic exercises. These factors were: (1) desire to participate in the experiment, and (2) degree of knowledge and skill regarding how to live and protect oneself under arctic conditions.

1. Despite the training course given to all of the participants in "Operation Snowdrop," some participants exhibited greater arctic survival knowledge or skill than others.
2. It was believed by the Armed Forces that military operations might someday be carried in an arctic-like environment.
3. A majority of the men who participated in "Operation Snowdrop" thoroughly disliked the experience.
4. As a group, the men of Scandinavian origin were found to function more effectively under severe arctic conditions than those of Latin origin.
5. Participants having normal weight and blood pressure were rated as significantly more effective on the arctic exercises than were the other participants.

Mr. Brown, who lives in the town of Salem, was brought before the Salem municipal court for the sixth time in the past month on a charge of keeping his pool hall open after 1 a.m. He again admitted his guilt and was fined the maximum, $500, as in each earlier instance.

6. On some nights it was to Mr. Brown's advantage to keep his pool hall open after 1 a.m., even at the risk of paying a $500 fine.
7. Mr. Brown's pool hall was held by the municipal court to be within the legal jurisdiction of the town of Salem.
8. Mr. Brown repeatedly flouted the 1 a.m. closing law in hopes of getting it repealed.
9. The maximum fine of $500 was fully effective in keeping all pool halls in Salem and its vicinity closed after 1 a.m.
10. There was one week during the past month when Mr. Brown observed the legal closing time each night.

Some time ago a crowd gathered in Middletown to hear the new president of the local Chamber of Commerce speak. The president said, "I am not asking, but demanding, that labor unions now accept their full share of responsibility for civic improvement and community welfare. I am not asking, but demanding, that they join the Chamber of Commerce." The members of the Central Labor Unions who were present applauded enthusiastically. Three months later all the labor unions in Middletown were represented in the Chamber of Commerce. These representatives worked with representatives of other groups on committees, spoke their minds, participated actively in the civic improvement projects, and helped the Chamber reach the goals set in connection with those projects.
11. Both the labor union representatives and the other members of the committees came to a better recognition of one another's viewpoints through their Chamber of Commerce contacts.

12. Union participation in the Middletown Chamber of Commerce greatly reduced worker-management disputes in that town.

13. The active participation of the labor unions resolved many controversies at all the committee meetings of the Chamber of Commerce.

14. Most of the union representatives regretted having accepted the invitation to participate in the Chamber of Commerce.

15. Some of the Chamber of Commerce members came to feel that their president had been unwise in asking the union representatives to join the Chamber.

16. The new president indicated in the speech that the town's labor unions had not yet accepted their full responsibility for civic improvement.
TEST 2: RECOGNITION OF ASSUMPTIONS

DIRECTIONS

An assumption is something presupposed or taken for granted. When you say, "I'll graduate in June," you take for granted or assume that you will be, alive in June, that your school will judge you to be eligible for graduation in June, and similar things.

Below are a number of statements. Each statement is followed by several proposed assumptions. You are to decide for each assumption whether a person, in making the given statement, is really making that assumption—that is, taking it for granted, justifiably or not.

If you think that the given assumption is taken for granted in the statement, make a heavy black mark under "ASSUMPTION MADE" in the proper place on the answer sheet. If you think the assumption is not necessarily taken for granted in the statement, blacken the space under "ASSUMPTION NOT MADE." Remember to judge each assumption independently.

Below is an example. The block at the right shows how these items should be marked on the answer sheet.

EXAMPLE
Statement: "We need to Save time in greeting there so we'd better go by plane."
Proposed assumptions:
1. Going by plane will take less time than going by some other means of transportation, (It is assumed in the statement that the greater speed of a plane over the speeds of other means of transportation will enable the group to reach its destination in less time.)
2. There is plane service available to us for at least part of the distance to the destination. (This is necessarily assumed in the statement since, in order to save time by plane, it must be possible to go by plane.)
3. Travel by plane is more convenient than travel by train. (This assumption is not made in the statement-the statement has to do with saving time, and says nothing about Convenience or about any other specific mode of travel.)
EXERCISES

Statement: "In the long run, the discovery of additional uses for atomic energy will prove a blessing to humanity."

**Proposed assumptions:**
17. Additional and beneficial ways of using atomic energy will be discovered.
18. The discovery of additional uses for atomic energy will require large long-term investments of money.
19. The use of atomic energy represents a serious environmental hazard.

Statement: “Zenith is the city to move to—it has the lowest taxes.”

**Proposed assumptions:**
20. Lower taxes imply efficient city management.
21. In deciding where to live, it is important to avoid high taxes.
22. The majority of the residents in Zenith are content with their present city government.

Statement: "we have permitted ourselves to be stampeded into a life of unnatural and dangerous high pressure. We pace ourselves by machines instead of by our natural rhythm.”

**Proposed assumptions:**
23. We can resist being pushed into a life of unnatural high pressure.
24. The way of life we have adopted is not in tune with the way human beings were meant to live.
25. The rapid pace of our lives does not help us to achieve our goals.

Statement: "I’m traveling to South America, I want to be sure that I do not get typhoid fever, so I shall go to my physician and get vaccinated against typhoid fever before I begin my trip."

**Proposed assumptions:**
26. If I don't take the injection, I shall become ill with the fever.
27. By getting vaccinated against typhoid fever, I decrease the chances that I will get the disease.
28. Typhoid fever is more common in south America than it is where I live.
29. My physician can provide me with a vaccination that will protect me from getting typhoid fever while I am in South America.

Statement: “If war is inevitable, we'd better launch a preventive war now while we have the advantage.

**Proposed assumptions:**
30. War is inevitable.
31. If we fight now, we are more likely to win than we would be if forced to fight later.
32. If we don’t launch a preventive war now, we’ll lose any war that may be started by an enemy.
TEST 3: DEDUCTION

DIRECTIONS

In this test, each exercise consists of several statements (premises) followed by several suggested conclusions. For the purposes of this test, consider the statements in each exercise as true without exception. Read the first conclusion beneath the statements. If you think it necessarily follows from the statements given, make a heavy black mark under "CONCLUSION FOLLOWS" in the proper place on the answer sheet. If you think it is not a necessary conclusion from the statements given, put a heavy black mark under “CONCLUSION DOES NOT FOLLOW,” even though you may believe it to be true from your general knowledge.

Likewise, read and judge each of the other conclusions. Try not to let your prejudices influence your judgment—just stick to the given statements (premises) and judge each conclusion as to whether it necessarily follows from them.

The word "some" in any of these statements means an indefinite part or quantity of a class of things. "Some" means at least a portion, and perhaps all of the class. Thus, "Some holidays are rainy" means at least one, possibly more than one, and perhaps even all holidays are rainy.

Study the example carefully before starting the test.

Some holidays are rainy. All rainy days are boring, Therefore-

1. No clear days are boring, (The conclusion does not follow. You cannot tell from the statements whether or not clear days are boring. Some may be.)
2. Some holidays are boring. (The conclusion necessarily follows from the statement since, according to them, the rainy holiday's must be boring.)
3. Some holidays are not boring. (The conclusion does not follow, even though you may know some holidays are very pleasant)
EXERCISES

No person who thinks scientifically places any faith in the predictions of astrologers. Nevertheless, there are many people who rely on horoscopes provided by astrologers. Therefore-
33. People who lack confidence in horoscopes think scientifically.
34. Many people do not think scientifically.
35. Some scientific thinkers trust some astrologers.

All members of symphony orchestras enjoy playing classical music. All members of symphony orchestras spend long hours practicing. Therefore-
36. Musicians who play classical music do not mind spending long hours practicing.
37. Some musicians who spend long hours practicing enjoy playing classical music.

Rice and celery must have a good deal of moisture in order to grow well, but rye and cotton grow best where it is relatively dry. Rice and cotton grow where it is hot, and celery and rye where it is cool. In Timbuktu, it is very hot and damp. Therefore-
38. Neither the temperature nor the moisture conditions in Timbuktu are more favorable for growing a celery crop,
39. The temperature and moisture conditions in Timbuktu are more favorable for growing rice than for growing celery, cotton, or rye.
40. Conditions in Timbuktu are not altogether favorable for growing a cotton or a rye crop.

Most persons who attempt to break their smoking habit find that it is something that they can accomplish only with difficulty, or cannot accomplish at all. Nevertheless, there is a growing number of individuals whose strong desire to stop smoking has enabled them to break the habit permanently. Therefore-
41. Only smokers who strongly desire to stop smoking will succeed in doing so.
42. A strong desire to stop smoking helps some people to permanently break the habit.

In one town there are 52 classes in the five elementary schools. Each class contains from 10 to 40 pupils. Therefore-
43. There are at least two classes in the town with exactly the same number of pupils.
44. Most elementary school classes in the town contain more than 15 pupils.
45. There are at least 550 pupils in these elementary schools.

Some Russians would like to control the world. All Russians seek a better life for themselves. Therefore-
46. Some people who would like to control the world seek a better life for themselves.
47. Some people who seek a better life for themselves would like to control the world.
48. If the Russians controlled the world, they would be assured of a better life.
TEST 4: INTERPRETATION

DIRECTIONS

Each exercise below consists of a short paragraph followed by several suggested conclusions.

For the purpose of this test, assume that everything in the short paragraph is true. The problem is to judge whether or not each of the proposed conclusions logically follows beyond a reasonable doubt from what is given in the paragraph.

If you think that the proposed conclusion follows beyond a reasonable doubt (even though it may not follow absolutely and necessarily), then make a heavy black mark under "CONCLUSION FOLLOWS" in the proper place on the answer sheet. If you think that the conclusion does not follow beyond a reasonable doubt from the facts given, then blacken the space under "CONCLUSION DOES NOT FOLLOW." Remember to judge each conclusion independently.

Look at the example below; the block at the right shows how the answers should be marked on the answer sheet.

EXAMPLE

A study of vocabulary growth in children from eight months to six years old shows that the size of spoken vocabulary increases from zero words at age eight months to 2562 words at age six years.

1. None of the children in this study had learned to talk by the age of six months. (The conclusion follows beyond a reasonable doubt since, according to the statement, the size of the spoken vocabulary at eight months was zero words.)

2. Vocabulary growth is slowest during the period when children are learning to walk. (The conclusion does not follow since there is no information given that relates growth of vocabulary to walking.)
EXERCISES
The history of the last 2000 years shows that wars have steadily become more frequent and more destructive. The twentieth century has the worst record thus far on both these counts.

49. Mankind has not advanced much in the ability to keep peace.
50. If past trends continue, we can expect that there will be more wars in the twentieth first century than there were in the twentieth century.
51. Wars have become more frequent and more destructive because the world's natural resources have become more valuable.

When the United States Steel Corporation was created in 1902, it was the largest corporation America had known up to that time. It produced twice as much steel as all of its domestic competitors put together. Today, the United States Steel Corporation produces about 20 percent of the steel that is made in this country.

52. In 1902, the United States Steel Corporation produced not less than 66 percent of the total domestic output of steel.
53. Today, domestic competitors produce more than three times as much steel as does the United States Steel Corporation.
54. The United States Steel Corporation produces less steel today than it did in 1902.

Pat had poor posture, had very few friends, was ill at ease in company, and in general was very unhappy. Then a close friend recommended that Pat visit Dr. Baldwin, a reputed expert on helping people improve their personalities. Pat took this recommendation and, after three months of treatment by Dr. Baldwin, developed more friendships, was more at ease, and in general felt happier.

55. Without Dr. Baldwin's treatment, Pat would not have improved.
56. Improvements in Pat's life occurred after Dr. Baldwin's treatment started.
57. Without a friend's advice, Pat would not have heard of Dr. Baldwin.

In a certain city where school attendance laws are strictly enforced, it was found that only 15 percent of the students had a perfect attendance record during a single school semester. Among those who sold newspapers, however, 25 percent had a perfect attendance record during the last semester.

58. Students who sold newspapers were more likely to have perfect attendance records during the semester that students did not.
59. Strict enforcement of school attendance laws in this city did not prevent 85 percent of the students from being absent sometime during the semester.
60. If truants were given jobs selling newspapers, their school attendance will improve.
61. The law rate of perfect attendance by students in that school system was due mainly to illness or injury.

When I go to bed at night, I usually fall asleep quite promptly. But about twice a month I drink coffee during the evening, and whenever I do, I lie awake and toss for hours.
62. My problem is mostly psychological; I expect that the coffee will keep me awake and therefore it does.
63. I don’t fall asleep promptly at night after drinking coffee because the caffeine in it overstimulates my nervous system.
64. On nights when I want to fall asleep promptly, I’d better not drink coffee in the evening.
TEST 5: EVALUATION OF ARGUMENTS

DIRECTIONS

IN making decisions about important questions, it is desirable to be able to distinguish between arguments that are strong and arguments that are weak, as far as the question at issue is concerned. For an argument to be strong, it must be both important and directly related to the question.

An argument is weak if it is not directly related to the question (even though it may be of great general importance), or if it is of minor importance, or if it is related only to trivial aspects of the question.

Below is a series of questions. Each question is followed by several arguments. For the Purpose of this test, you are to regard each argument as true. The problem then is to decide whether it is a strong or a weak argument.

Make a heavy black mark on the answer sheet under "ARGUMENT STRONG" if you think the argument is strong, or under "ARGUMENT WEAK" if you think the argument is weak. Judge each argument separately on its own merit. Try not to let your personal attitude toward the question influence your evaluation of the argument, since each argument is to be regarded as true.

In the example, note that the argument is evaluated as to how well it supports the side of the question indicated.

Example
Should all young men in the United States go to college?
1. Yes; college provides an opportunity for them to learn school songs and cheers. (This would be a silly reason for spending years in college.)
2. No; a large percent of young men do not have enough ability or interest to derive any benefit from college training. (If this is true, as the directions require us to assume, it is a weighty argument against all young men going to college.)
3. No; excessive studying permanently wraps an individual's personality. (This argument, although of great general importance when accepted as true, is not directly related to the question, because attendance at college does not necessarily require excessive studying.)

When the word “should” is used as the first word in any of the following questions, its meaning is, "Would the proposed action promote the general welfare of the people in the United States?"
EXERCISES

Would a strong labor party promote the general welfare of the people of the United States?
65. No; a strong labor party would make it unattractive for private investors to risk their money in business ventures, thus causing sustained large-scale unemployment.
66. Yes; differences between Republicans and Democrats today are not as great as the differences between liberals and conservatives within those parties.
67. No; labor unions have called strikes in a number of important industries.

Should groups in this country who are opposed to some of our government’s policies be permitted unrestricted freedom of press and speech?
68. Yes; a domestic state thrives on free and unrestricted discussion, including criticism.
69. No; the countries opposed to our form of government do not permit the free expression of our points of view in their territories.
70. No; if given full freedom of press and speech, opposition groups would cause internal strife, marking our government basically unstable, and eventually leading to the loss of our democracy.

Should the United States Department of Defense keep the public informed of its anticipated scientific research programs by publicizing ahead of time the needs that would be served by each program?
71. No; some become critical of the government when widely publicized projects turn out unsuccessfully.
72. Yes; only a public so informed will support vital research and development activities with its tax dollars.
73. No; it is essential to keep certain military developments secret for national security and defense reasons.

Do juries decide court cases fairly when one of the opposing parties is rich and the other is poor?
74. No; because rich people are more likely to settle their cases out of court.
75. No; most jurors are more sympathetic to poor people than to the rich, and the jurors' sympathies affect their findings.
76. No; because rich people can afford to hire better lawyers than poor people, and juries are influenced by the skill of the opposing lawyers.

Should pupils be excused from public schools to receive religious instruction in their own churches during school hours?
77. No; having public-school children go off to their separate churches, during school hours would seriously interfere with the educational process and create friction among children of different religions.
78. Yes; religious instruction would help overcome moral emptiness, weakness, and lack of consideration for other people, all of which appear to be current problems in our nation.
79. Yes; religious instruction is very important to the preservation of our democratic values.
80. No; religious instruction during school hours would violate our constitutional separation of church and state; those who desire such instruction are free to get it after school hours.
Since the first computer was made in the late fifties, the technology has developed extremely. Computers which took the place of a living-room then are now being made in credit card-formats. More and more areas are being taken over by the computer.

As computers are capable of handling large amounts of data in a very short time, they are well suited for word-processing. I guess that it won't be long till all the paper archives are replaced by magnetic tapes and diskettes. A diskette can contain much more data than a written page, and it takes less place! It is possible to get the Norwegian telephone book on just one diskette.

In near future, a new area will be taken over by computers, namely, maps. Different routes are stored on one single compact-disk. Imagine, simply insert the CD into the CD-driver in your car, and tell the computer where to go. The rest will be done automatically. This will be a safer, faster, and more comfortable way to travel.

Another new area, called "virtual reality" is currently being tested. This is a way to simulate reality on a monitor. In order to feel this so-called reality you have to wear special electronic glasses and an electronic suit. Fastened to the suit are sensors, which send information to the main computer. This computer works with the data and displays them on the electronic spectacles. This is a technique which uses three dimensional views, therefore the scenery seems incredibly realistic. If you want to be a boxer, simply change the scenery on the main computer, and you are in the ring.

Today, many kids have got video games. You could say these games are the present's answer to ludo and monopoly. In a way, it is a great advantage that the kids are being presented to computers at an early age, because they will definitely have to use them later, when they start to work. In the future there will be few occupations which won't use computers, one way or another. But the video games are often being presented as something negative, which hinder the kids from doing homework and other more useful activities. This is partially true, if they do much of it. But generally, I think the young people's contact with computers is positive.

In Norway today, it is getting more common to have a computer at home. You can use a personal computer to keep household-budgets or other economics. It is also possible to get in touch with your bank and transfer money while you're in your sitting-room.

It is possible to contact other databases and gather information from them. The use of computers has lead to other criminal actions. "Hacking" is one of them. A "hacker" steals and manipulates information from other databases. These crimes can be very harmful. In The USA, hackers have managed to break into NASA's database and steal classified information about the nation's security.

These hackers also pirate software. The computer-programmes, the software, are extremely high priced, sometimes they are even more expensive than the
hardware. Therefore it is not unusual to make copies of these programmes. This is strictly illegal, but nobody seems to care, because it is difficult to control it. Software producers lose a lot of money each year because of this.

Without computers and internet, the world will be a vacuum. There is no aspect of life that is untouched by computer and internet. The power of internet as a global communication medium is increasing day by day. Internet, which was once restricted to big cities alone, has found its way to villages too. The boundaries between the countries are disappearing. The world is shrinking to the size of our palm.

Each of the questions that follow contains a word that has been used in the passage. Choose the option that is closest in meaning to the word as used in the passage.

1. Archives:
   a. an arched dome made of paper
   b. a place where papers are stored
   c. documents or records relating to the activities, business dealings, etc., of a person, family, corporation, association, community, or nation
   d. Places built by architects.

2. Virtual reality:
   a. a realistic imitation of an scenery
   b. a realistic recreation of an environment, including three-dimensional graphics, by a computer system using interactive software and hardware
   c. reality that is not permanent in nature
   d. reality that is created to deceive viewers

3. Simulate:
   a. to create an imitation, likeness, or model of something
   b. to feign and make a pretence
   c. to stimulate something
   d. to imagine something which is not real

4. Sensor:
   a. a device that receives signals and responds to those signal or stimulus
   b. a device that records signals
   c. a device that transmits data
   d. a device that substitutes for the sensor

5. Incredible:
   a. so extraordinary that it seem impossible
   b. a far-fetched story
   c. a boring story
   d. extremely amazing

6. Hacking:
   a. to cut or chop with repeated and irregular blows
   b. to write or refine computer programs skillfully
   c. to use one's skill in computer programming to gain illegal or unauthorized access to a file or network
   d. to indulge in a criminal act

7. Vacuum:
   a. a vacuum cleaner or sweeper
   b. a space entirely devoid of matter
   c. a space not filled or occupied; emptiness; void
d. a place free of pollution

Each question is followed by four options. Choose the option that is most appropriate.

8. According to the composition, paper archives will soon be replaced by modem technology because:
   a. computers are capable of handling large amounts of data in a very short time
   b. computers are well suited for word-processing
   c. diskettes and magnetic tapes can contain much more data than a written page, and it also occupies comparatively lesser place than paper archives
   d. no more storage space will be available

9. Virtual reality is actually a:
   a. create a make-belief environment that is made realistic by the use of computer technology and graphics
   b. a technique that changes the scenery in the main computer
   c. the creation and display of data on the monitor
   d. a new type of reality

10. Which of the following is not implied in the seventh and eighth paragraphs:
    a. the use of computers also has certain demerits such as criminal hacking
    b. contacting other databases and stealing information from them is becoming a widespread practice in U.S.A.
    c. pirated software is another consequence of criminal hacking
    d. it is not easy to control pirating of software.

Read the following passages and answer the questions that follow.

For centuries, ideas about language origin have frothed up like soap bubbles, then burst into nothing. Over 2,000 years ago, the Egyptian king Psammetichus reportedly gave instructions for two new-born children to be brought up in total isolation by a shepherd in a lonely cottage. The king wanted to find out the words they would first utter, which he assumed would reveal the world's oldest race. Two years later, as the shepherd unlocked the cottage-door one day, the children ran up to him with outstretched hands, pronouncing the word 'bekos'. Psammeticus discovered with dismay that this was the Phrygian word for 'bread', and reluctantly concluded that the Phrygians antedate the Egyptians. But according to John Webb, a seventeenth century writer, Chinese was the original language of humankind. Happily, it was spoken by Noah and his family in the Ark, he assumed, and so survived the flood.

A fresh look at the role of language has led to new ideas about how it all started. Traditionally, humans are regarded as reliable fact-swappers, and conveying information is often claimed to be the primary purpose of language. This view was put forward by philosophers, such as the seventeenth-century thinker John Locke, who stated that language is 'fee great conduit, whereby men convey their discoveries, reasoning and knowledge, from one to another'. His conduit metaphor was probably based on his admiration for the pipes which earned London's recently established water supply.
But me conduit idea is misleading. Language is not like a water-pipe. It is good at transferring some types of data, especially negative reports. Yet it is bad at other types, especially \textit{spatial} information, where instructions such as Take the third turning on the right then the fourth on the left’ would be much clearer on a map. Language is also bad at conveying pain or emotion. "There is no language for pain .. Ouch, ow, oof, gah.. Pain is its own language’, says the novelist Martin Amis. This lack of language limits our capacity to communicate the range and degree of our emotions.

Early human language was probably not a fact-swapping device. Its original role can be uncovered by looking at behaviour which we share with our ape relatives, according to anthropologists. Humans, alongside other primates, are often called social animals. They have firm family ties and also interact strongly at the group level. This social background has promoted two types of behaviour: a fondness for grooming one another, and an ability to make guesses about the mental state of others: intelligent \textit{primates} can put themselves into one another's shoes, as it were. These abilities tie in with two things language is especially good at: interacting with others, and influencing them.

Each of the questions that follow contains a word that has been used in the passage. Choose the option that is closest in meaning to the word as used.

1. \textbf{Conduit:}
   a. a passage, a pipe or tunnel through which water or electric wires can pass
   b. a tube or duct for enclosing electric wires or cable
   c. a substance, body, or device that readily conducts heat, electricity or sound
   d. a bridge on which something travels

2. \textbf{Antedate:}
   a. establish something as being earlier or preceding something else
   b. opposed to or in place of something else
   c. to mark or designate with a date earlier than the actual one
   d. at the very beginning of history

3. \textbf{Fact-swappers:}
   a. those who deal with facts relating to special weapons and strategy
   b. those who periodically exchange facts with each other
   c. those who tamper with facts
   d. those who collect and store facts

4. \textbf{Spatial:}
   a. dealing with landmarks and maps
   b. relating to space
   c. to be fitting or suitable
   d. something that cannot be seen

5. \textbf{Primates:}
   a. original or ancient
   b. being little evolved from an early ancestral type
   c. an animal order including lemurs and tarsiers and monkeys and apes and human beings
   d. primary inhabitants of a primitive type
Each question is followed by four options. Choose the option that is most appropriate.

6. The Egyptian king carried out the experiment with me two new born children because:
   a. He wanted to find out which language the children would learn on their own
   b. He wanted to know which world they would utter first
   c. He wanted to find out which language was the most ancient language
   d. He wanted to know which was the world’s oldest a race

7. According to the king, whichever language the children leam on their own would be evidence for:
   a. the origin of language
   b. the world’s oldest race
   c. the original language of humankind
   d. the origin of the Egyptians

8. According to this composition, the primary purpose of language is:
   a. communicating information
   b. speaking and writing
   c. interacting with others and influencing them
   d. social and family communication

9. The description of language as a conduit is misleading as:
   a. language is not always good at transmitting all kinds of information
   b. language is good only at transferring negative data
   c. language is a combination of efficiency and inefficiency which does not allow us to express the exact range and strength of our emotions
   d. language is not good for expressing emotions

10. The two types of language behaviour which are the direct outcome of humankind’s social nature are:
    a. fact-swapping and influencing others
    b. grooming and to predict the thoughts of others
    c. conveying emotional messages
    d. interacting with others and identifying with them

CLIMATE CHANGE IN SHORT

In December 1997, negotiators from more than 150 countries gathered in Kyoto, Japan, to decide whether to impose mandatory measures to address the most difficult environmental problem of our time: humanity’s experiment on the world’s climate. An agreement was adopted to require industrialized countries to make significant reductions in their emissions of warming gases over the next 10 to 15 years. To achieve this, nations will have to reduce their use of fossil fuels, such as coal and oil, and begin a steady transition towards a new energy system, based on efficiency and renewable energy.
THE SCIENCE DRIVING THE POLITICS

The earth’s atmosphere is transparent, allowing sunlight to enter and warm its surface. Some of the gases in the atmosphere, including water vapour, carbon dioxide, methane, and nitrous oxide, are called greenhouse gases because they trap some of the resulting heat. Without the natural greenhouse effect, much of the sun’s warmth would be lost to space, and the surface of the world would be about 61 degrees Fahrenheit colder, too frigid for most forms of life.

Since industrialization, however, the levels of these gases in the atmosphere have risen substantially, due to the increased combustion of fossil fuels (coal, oil, and natural gas) used to produce electricity, power cars, run factories, and heat and cool houses. Greenhouse gases have also been emitted as a result of deforestation and certain agricultural practices. The accumulation of these gases is changing the earth’s climate by trapping more of the sun’s energy. The globally averaged temperature of the air at the earth’s surface has warmed between 0.5 and 1 degree Fahrenheit since the late nineteenth century. The sea level has also risen about four to 10 inches since the nineteenth century, due primarily to the melting of glaciers and the thermal expansion of the oceans, phenomena attributed to global warming.

In 1988, in recognition of the gravity of this problem, the nations of the world appointed the Intergovernmental Panel on Climate Change (IPCC), consisting of more than 2000 leading experts from around the world, to assess the science and economics of climate change. In a landmark 1995 report, the IPCC concluded that “the balance of evidence suggests a discernible human influence on global climate.”

The IPCC has predicted several probable consequences of future warming, including sea level rises of an additional six to 37 inches by the year 2100, and increased frequency and duration of many extreme weather events, such as heat waves and droughts. Heavy rains and flooding are also predicted to occur more frequently in many parts of the world, since higher temperatures lead to more rapid rates of evaporation and precipitation. In the United States, where the best data are available, an increased number of extreme rainfall events has already been observed.

For the 50 percent to 70 percent of the human population living in coastal areas, rising sea levels and more frequent storm surges could have devastating effects, subjecting millions of people’s homes to periodic flooding or permanent submergence.

Global warming also has the potential to transform many of the world’s natural ecosystems over the next century, causing, for example, about one-third of the Earth’s forested area to undergo major shifts in composition. Among ecosystems most likely to experience. Among ecosystems most likely to experience serious disruption are those that higher latitudes, such as the far northern forests and tundra, as well as coastal ecosystems, with dramatic consequences for fisheries and marine biodiversity.
Each of the questions that follow contains a word that has been used in the passage. Choose the option that is closest in meaning to the word:

1. Mandatory:
   a. Compulsory
   b. Regulatory
   c. Legal
   d. Allowed
2. Discernible:
   a. Visible
   b. Obvious
   c. Clear
   d. Understandable
3. Devastating:
   a. Terrifying
   b. Destructive
   c. Dangerous
   d. Deadly
4. Disruption:
   a. Shortage
   b. ravage
   c. damage
   d. stoppage

Each question is followed by four options. Choose the appropriate option:

5. To reduce gas emissions countries have agreed to:
   a. Completely cut out fossil fuels
   b. Modify present energy systems
   c. Adopt renewable energy
   d. Make use of fossil fuels efficiently
6. The IPCC is responsible for:
   a. Action on climate change
   b. assessment of the impact of climate change
   c. prediction of extreme weather
   d. warning countries about heat waves and floods
7. Greenhouse gases are so called because:
   a. They protect the earth from the sun
   b. They are poisonous
   c. They melt the glaciers
   d. They trap heat
8. Increase of flooding in coastal areas is due to:
   a. Storms and rising sea levels
   b. Excess rainfall
   c. Melting of glaciers
   d. Greenhouse gases

9. According to the passage, it is necessary to take action on climate change because:
   a. much of life will be destroyed
   b. there will be a lot of flooding
   c. the forest area will vanish
   d. there will be many storms

10. The ecosystems most affected by climate change are:
    a. All the earth’s forests
    b. Mountains
    c. Coastal and northern forests
    d. Islands and seas

CASSAVA LEAVES AS A SOURCE OF PROTEIN

Cassava is a major staple food in Brazil and tropical countries. Its leaves are an all-year product. They are, however, so far under-researched and under-utilized. According large tonnages of these leaves are currently discarded as wastes after harvesting the roots. Since green vegetables have been recognized as the cheapest source of protein, researchers in the University of Brazil thought of evaluating its content in cassava leaves.

Leaf samples were harvested from local or genetically improved cassava varieties and interspecific hybrids too. Samples of fully expanded leaves were analysed. About 100 gm each of cassava leaf were sundried for 2-3 days with constant turning over to avert fungal growth it was then analyzed for protein content.

It was found that cassava has high potential as cheap source of alternative protein for human and animal. It may be used to enhance the protein value of low-nitrogen traditional staples such as flours from cereals and tubers including cassava flour itself. Because of the simplicity of this technology involved in leaf protein, its incorporation for local food production will be the most practical for a highly sustainable strategy.

The high protein content and nutritive value of cassava leaves are well documented by analysis. If cassava cultivars with low HCN content and high protein were selected it could offer a valuable source in the less developed regions of and other countries. The leaves contain high protein, as much as 32%. So they are excellent candidates to use in enriching root flour or in being consumed directly.

To increase the potentially of cassava leaf as a protein source, a strategy for the cultivation of cassava aims towards leaf production in generous quantities. The plant density could be increased and harvested more frequently. With adequate irrigation and fertilization, cassava plants can withstand defoliation for several years.
Considering that the minimum of protein content in cassava is 21% from one hectare of cassava, it is possible to obtain 140 kg of protein.

In view of the predicted world shortage of cereal grains, cassava leaves are a potential source of protein for livestock raising in the tropics. Because of competing needs for the expanding human population and the diminishing food producing capacity of the earth’s surface, it is argued that the major priority is to develop livestock feeding systems which do not depend on cereal grains. Cassava leaves are considered as a good source of supplementary protein too. They can be used for preparing dishes of cassava leaves adding variety to the diet as well as nutrients.

Therefore it has been concluded that the leaves of cassava are a considerable source of protein. They may alleviate nutrition deficiency in developing countries of the tropics and sub tropics. Cassava cultivars which are used for cooking purposes are good candidates to have their leaves enriched. For these reasons, using cassava leaves as a source of protein serves well for a highly sustainable strategy.

Each of the questions that follow contains a word that has been used in the passage. Choose the option that is closest in meaning to the word:

1. A `staple food’ is:
   a. basic
   b. stable
   c. single
   d. main

2. Livestock refers to:
   a. Domestic animals
   b. Animals used for meat
   c. Food reserves
   d. Cows

3. Defoliation:
   a. Lack of growth of leaves
   b. Dying out of the leaves
   c. Deforestation
   d. Loss of leaves

4. is to:
   a. Lessen
   b. Increase
   c. Improve
   d. Solve
Each question is followed by four options. Choose the appropriate option:

5. Cassava leaves are discarded because:
   a. Only the roots are eaten
   b. They are useless
   c. Flour cannot be made of them
   d. They are not tasty

6. From the passage, a statement that is NOT made about cassava is:
   a. Cassava is highly nutritive
   b. Flour is made from cassava
   c. Cassava is popular in Brazil
   d. Cassava has more value than other plants

7. What is to be done, as suggested in the passage, to increase the potential of cassava?
   a. Increase the cultivation
   b. Make hybrids
   c. Use more fertilizer
   d. Cook it properly

8. The use of more cassava leaves will result in:
   a. Eliminating wastage
   b. Better use of crops
   c. Better nutrition
   d. Less eating of meat

9. It is suggested in the passage that
   a. People in tropical countries face lack of protein in diet
   b. There is less protein in most cereal grains
   c. Cassava is the best source of protein in tropical countries
   d. Cereal grains cause protein deficiency which is removed by eating cassava leaves.

10. The use of enhanced leaf protein is a sustainable strategy because:
    a. It is cheaper than meat
    b. It uses simple technology for maximum gains
    c. It is applicable in many countries
    d. It puts less strain on farmers