UNIT 4 NOTE-TAKING - III : LISTENING TO A LECTURE

Structure

4.0 OBJECTIVES

After completing this unit, you will be able to:

- strengthen your skills in taking notes from a lecture;
- differentiate among the various parts of a lecture; and
- develop skill in reconstructing the notes that you have taken.

4.1 INTRODUCTION

In the first two units on note taking we dealt with the techniques of taking notes from reading texts. In this unit we shall deal with the taking of notes while one is listening to lectures. There are some important differences between taking notes while one is reading and doing it while one is listening. The special skills required to take notes while one is listening will be focused on here. While we shall, in this unit, concentrate mainly on 'lectures', it should help you in other listening activities as well.

After you have taken notes — especially from different sources — it becomes necessary to 'reconstruct' your notes, i.e. rewrite them in a fuller and more comprehensive form. We shall also deal with some of the methods of reconstructing notes.

4.2 A GOOD LISTENER

Good listening does not begin with listening; you must think before you listen. And you must think while you listen too. Even before a lecture or a talk begins, a good listener generally prepares himself/herself for what she/he is going to hear — provided, of courses, she/he knows the topic of the lecture. If you prepare yourself for all your important listening activities, you will learn more easily and more efficiently. The first stage is to ask yourself questions about what you are going to hear. If you know the topic or the title of the lecture in advance, try asking yourself: do you know anything about the topic at all? What do you expect to learn? How will it relate to the other topics that have already been discussed? How do you think it will relate to your job/your interests/your opinions on this subject? Questions like these will attune your mind to what you are about to hear. They will also make it easier for you to integrate the new information, i.e. make it a part of your active knowledge.

You must think while you listen too. As you listen to what the speaker is saying, you think ahead of what she/he may say next. You see how the small points add up to form the main ideas. Often you can spot a point or an idea that is missing. You may even disagree with some of the points that the speaker is making. Then you must make a note of these and put them in brackets. In note taking, unlike summarizing, you are expected to write about your own views as well.

Check Your Progress 1

Here are some possible topics for lectures. Write down 3 or 4 questions on each topic, which you might expect the lecture to answer.

1) The computer, its capabilities and limitations

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2) Communication skills for Nurses

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3) Disease: Cholera

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4.3 SOME BASIC EQUIPMENT FOR NOTE-TAKING

Besides being mentally alert for taking notes during a lecture, you must be physically equipped for it as well. Unlike note taking from a reading text, where you can work at your own pace, note taking while listening is a much faster activity. Since you have to keep pace with the speaker, you should be ready with some basic materials. These are pens/pencils and notebooks/paper.

1) **Pens:** Choose whatever you are comfortable with. It is a good idea to have pens of more than one colour at your disposal. Colour contrast can do a lot to make some parts of the information stand out.

2) **Notebooks/paper:** It is best not to choose a notebook with small-size sheets for your notes. Your notes will tend to be cramped in a very small space, and at a later date they may even be incomprehensible. A 30 cm. × 22 cm. size notebook will give you enough room on each page to lay out your notes properly.

Writing notes on loose sheets of paper which are later put in a file is perhaps the best method. You can later rearrange the sheets to suit your convenience: for example, you can take passage out if you need them or you can put in, say, newspaper clipping and other material relating to your notes at the appropriate place.

4.4 PARTS OF A LECTURE

You may have noticed that many lectures can be divided into three parts.

These are:

i) **Introduction:** The speaker 'sets the scene' for his/her lecture. He/she may revise what was said earlier. The speaker will probably give you the gist of what he/she is going to say in the lecture.

ii) **Main part of the lecture:** Here the speaker will make the main points, with examples.

iii) **Summing up:** The speaker may round off his/her lecture by going over the main points again, or by briefly stating his/her point of view.

4.5 TAKING NOTES FROM A LECTURE

Many students have a habit of trying to take down every word of a lecture. They generally end up with a lot of rather messy information. When you take down notes, you should be selective of what you want to write down. You will naturally want to select the main points and some subsidiary points, which relate to the main points. While listening, how do you identify the main points and differentiate them from the subordinate points? What are the cues that tell you that the speaker is rounding off his/her lecture? Also, how do you separate the main text from digressions and repetitions? The different aspects of a lecture are usually differentiated by the way, in which the speaker presents them.

i) Before the beginning of a new lecture, a teacher often spends as much as five minutes recapitulating what s/he talked about in her/his earlier lecture, and tries to link it with the main points of the lecture s/he is about to begin. This prepares the student to listen to what the teacher has to say. But remember there is no need to take down notes for this part of the lecture.

   Some of the semantic markers that the teacher might use are:

   If you remember, last time we talked about…

   In the previous lecture we talked about…

   In the last lecture we discussed…

ii) Very often the main ideas of a lecture are signaled by semantic markers, such as:

   It is important to note that…

   The points you must remember are…

   I would like to emphasize…

   The next point is crucial to my argument…

   I would like to direct your attention to….

   Speakers often list their main points. The semantic markers that can be used are:

   First,

   In the first place,

   Second,

   Third,

   My next point is/Next/Then/After that

   Last,/Finally

There are also non-verbal ways of indicating the main points. One method is visual display (e.g., by putting the main points on the blackboard). Sometimes you will find that the lecturer's facial expression and gestures make the meaning clear.

iii) Often example and points of lesser importance are also signaled. The speaker may use phrases such as:

For instance,…. **Let me give you some example…,**

For example, **I might add…**

Let's take… **To illustrate this point….**

(Examples and points of lesser importance should be related briefly to the main points as already shown in the earlier units on note taking.)

iv) When a speaker or even a writer is about to sum up his/her lecture, or a part of it, the semantic markers used are likely to be:

To summarize what I have tried to say,

What I have been saying is this…

If I can just sum up…

In conclusion,

v) Speakers often tend to digress, i.e., say things which have very little to do with their main topic, or are related to it in a roundabout way. Speakers will sometimes digress deliberately in order to make their lecture interesting, amusing, or topical. If the lecture is on a serious subject, a humorous digression is used to give a break to the listeners. (There is no need to note down digressions.) Digression markers are expressions like

By they way, ...

I might note in passing .....

I remember this incident that happened in Chicago .....

vi) Generally, a lecture contains a lot of repetition. This makes the listener's task much easier. While taking down notes, you must make sure that you do not take down the same points over and over again. Some phrases which might help you identify repetition are:

Let me put it this way,

In other word,

To put it in another way,

That is to say,

To repeat what I have said so far,

Despite the fact that you are positively 'set' to listen to a lecture, you may still find that at some point of the lecture, your comprehension of it breaks down altogether. This may be because the lecturer speaks too fast, or because you have lost track of what he/she is saying. It is essential that you do not give up when this happens, but listen as intently as you can, jotting down a key word here and there. You may later consult other listeners and complete your notes.

Check Your Progress 2

1) You will now listen to six recorded extracts from lectures on different subjects. For each extract, write down whether you think

a) it is the beginning of a lecture,

b) it gives the main points of a lecture,

c) it gives an example,

d) it has repetition in it,

e) it has a digression, or

f) it is a summing up.

(You may listen to these extracts at the nearest study centre set up by the university. If you are unable to go to the study centre, ask a friend in your neighbourhood who speaks English well to read them to you. The texts of these extracts are given in the Appendix at the end of this unit.)

Extract 1 : .....

Extract 2 : .....

Extract 3 : .....

Extract 4 : .....

Extract 5 : .....

Extract 6 : .....

2) You will now listen to a lecture (given in the Appendix at the end of this unit) on the history and development of the computer as it is today. You may either listen to it at home on your cassette player, or at the study centre. In case neither is possible, ask a friend in your neighhourhood who speaks English well to read it out to you. Before you listen to the lecture, read the questions below. You may attempt to answer the questions while you are listening for the second time.

I) State whether the following statements are true (T) or false (F).

a) Even today we often count on our fingers and learn counting on a kind of abacus. ( )

b) Napier produced the first logarithm table, which is still used by mathematicians. ( )

c) Isaac Newton and Leibnitz together invented calculus. ( )

d) The first calculating machine was invented by Charles Babbage. ( )

e) Transistors replaced vacuum tubes in the computer. ( )

f) As computers evolved, their size increased and also their dependability. ( )

g) Today's computer circuits can be put on a chip. ( )

II) Match the information given in Column A with that given in Column B.

	Column A		**Column B**
a)	Calculus	i)	a bead frame in which beads are moved from left to right.
b)	Slide rule	ii)	used transistors instead of vacuum tubes.
c)	Abacus	iii)	a branch of mathematics
d)	The Analytical Engine	iv)	the first that used integrated circuits
e)	Third generation computers	v)	could perform thousands of calculations per second.
f)	Second generation computers	vi)	a mechanical device for multiplying and dividing
g)	First generation computers	vii)	was never completed.

3) Listen to the lecture again (given in the Appendix at the end of this unit) and take notes as you listen. What sort of organisation would you suggest for taking notes from a lecture with this type of content? You will remember that in the last unit on note taking (Unit 2), we suggested that a passage that contained information on different aspects of a single topic could be most conveniently set out in the form of a list or a table. This lecture has a similar kind of content. Complete the Table below with the notes you may have taken.

Notes 1

Time	i)	ii)
1) Primitive times	people	10 fingers + abacus
2) C17th + C18th	a) iii)	calculat^{g} device = mod. slide rule
	b) iv)	v)
	c) Newton + Leibnitz	vi)
3) 1820	No. of people	vii)
4) 1830	viii)	ix)
5) x)	Prof. H. Aiken + IBM	xi)
6) 1946	xii)	xiii)
7) 1947	xiv)	xv)
8) 1950		xvi)
9) xvii)		xviii)
10) xix)		3rd gen^{n} computers control^{d}
11) early 70's		by integrated circuits
		xx)

4.6 RECONSTRUCTING NOTES

After you have taken down notes, it is probably necessary at some point to reconstruct them into a report, a paper or even an examination answer. For this, you need to bear in mind the difference between note taking and reconstructing notes.

When taking notes, we ignore the convention of writing complete sentences in order to record information as quickly and briefly as possible. However, in reconstructing notes we have to adopt the style of formal writing. Some of the differences between notes and formal writing are listed in the table below:

Notes	Formal writing
— Omission of linking verbs, articles and prepositions	— Full forms of verbs; articles and prepositions included
— Use of abbreviation devices	— Words written in full
— Different types of layout to show development of ideas. For instance tables, diagrams, lists, etc.	— Ideas developed in complete, connected, and properly punctuated sentences.

Check Your Progress 4

1) Now do the following exercise in reconstructing notes. Read the notes below and write them up in a short paragraph of about 100 words. Then compare your answer with the specimen paragraph given by us at the end of this unit.

Notes

Rabies

1) Virus transmitted by rabid animals, esp. dogs.

2) Carried to central nervous system + brain

3) Symptoms (appear up to 6 mths. later)

   a) thirst, but

   b) revuln, against water — diff^{y} in swallow^{g}

   c) high fever — paralysis + convulsions — death.

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2) The notes below are given in the form of a table. Write them up in the form of a passage of about 150 words. The first paragraph of the passage is given to you.

These notes show you the contrast between two types of ancient man, i.e. Neanderthal and Cro-Magnon man. You are already aware of the technique of developing paragraphs by comparison and contrast. It would be a good idea to read the unit on writing paragraphs again, before you attempt to write the passage.

Notes

Neanderthal and Cro-Magnon Man

	Neanderthal	Cro-Magnon
Body Structure	Brain large as man; unusually large skull; massive jaw; large front teeth; short, ca. 1½	Like mod^{n} man; prominent chin; high-bridge nose; small even teeth; taller than Neand^{l} man
Food Habits	Eat^{g} flesh of animals hunted + killed; wild fruit	Hunter; later cultiv^{d} + raised crops and animals
Art	Crude drawings of tools + animals	1st fine artist in the world; several cave paintings, stone engravings + carved figs; attempt^{d} to create daily life thro art.

The two forerunners of modern man, bearing several human features, were the Neanderthal and the Cro-Magnon men. While the former suddenly disappeared, the latter evolved into modern man.

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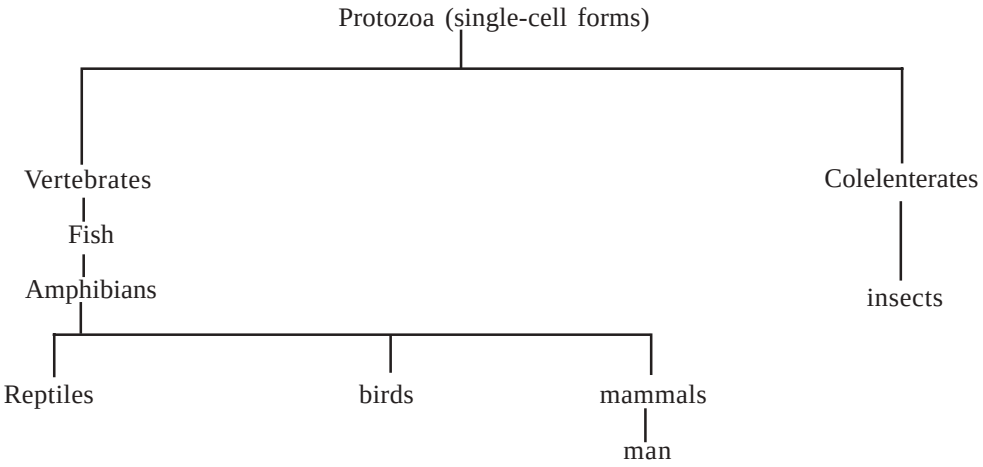
3) Use the tree diagram to complete the passage given below:



It is now generally believed that man was not created instantaneously, but evolved over millions of years from simpler forms of life. Man belongs to the class of i) ……..……. Mammals have evolved through various stages from the ii) ……..…….., the simplest iii) ……. Protozoa eventually developed in iv) ……..…… directions, the very simple v)…….. from which insects have descended; and the vi) ……, which, after the earlier evolution of fish and vii) ……..……..., finally branched into three great class, viii) ……. ix).....……, and x) ……

4.7 LET US SUM UP

In this unit, we have discussed some of the special techniques required in taking notes while listening to a lecture. These include preparing oneself before a lecture, being aware of the different parts of a lecture, and differentiating between the main points and digressions, repetitions, etc. Since you also need to reconstruct your notes at some point, we have given you some practice in this area as well.

4.8 KEY WORDS

Digression : To move away from the main point

Recapitulate : To repeat the main point

Reconstruct notes : Rewrite notes is a more expanded, fuller form.

Semantic markers : Words/phrases that clearly indicate a special meaning.

4.9 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress 1

1) a) What functions can a computer perform?

   b) How does it perform these functions?

   c) What are the functions it cannot perform?

   d) Will the computer of the future overcome these limitations?

2) a) Why do Nurses need communication skills?

   b) Communication skills in information and advice giving

   c) Communications skills in counseling

3) a) What causes cholera?

   b) What are the symptoms of cholera?

   c) How can it be prevented?

   d) If it occurs, how should it be treated?

Check Your Progress 2

1) Extract 1 : Summing Up

   Extract 2 : Main Point

   Extract 3 : Examples

   Extract 4 : Repetition

   Extract 5 : Beginning

   Extract 6 : Digression

2) I) a) T

   b) F

   c) F

   d) F

   e) T

   f) E

   g) T

   II) a) iii

   b) vi

   c) i

   d) vii

   e) iv

   f) ii

   g) v

3) i) History and Development of Computers

ii) Calculating device

iii) J. Napier

iv) Briggs

v) log. tables

vi) invent^{d} Calculus

vii) calcul machine-10-tooth gear wheels

viii) Charles Babbage

ix) 'The Analytical Engine' (not completed)

x) 1944

xi) 1st digital computer

xii) J. Eckert+ J. Mauchly

xiii) Digital computer using vacuum tubes—call^{d} ENIAC.

xiv) John Von Newmann

xv) Devl^{d} computer with memory

xvi) 1st gen^{n} computer—used vacuum tubes—cd perform 1000's of calcul^{ns} p.sec.

xvii) 1960

xviii) 2nd gen^{n} computer-used transistors

xix) 1965

xx) 4th gen^{n} computer—1000 circuits can fit into a single chip.

Check Your Progress 3

1) Rabies is a disease transmitted to man by the bite of rabid animals, particularly dogs. The virus is carried by the bloodstream to the central nervous system and the brain. The symptoms of rabies can take from a few days to about six months to appear. The symptoms include thirst with revulsion for water when the patient is offered it. In fact, the patient has difficulty in swallowing liquids. A rabies victim dies a very painful death, following high fever, paralysis and convulsions.

2) The two forerunners of modern man, bearing several human features, were the Neanderthal and Cro-Magnon men. While the former suddenly disappeared, the latter evolved into modern man.

With his prominent chin, high-bridged nose, and small, even teeth, the Cro-Magnon man could well be mistaken for a present-day human being. The Neanderthal man, however, was different in many ways. Although his brain was as large as modern man's, it was enclosed in an unusually large skull. The face was distinguished by a massive jaw with large front teeth, probably required for eating raw meat. The Neanderthal man was rather short, about one and a half meters in height.

With regard to eating habits, the Neanderthal man remained quite primitive. Since he was a skilled hunter, he ate the flesh of the animals he hunted and killed. The women gathered wild fruit, which also formed part of their diet. The Cro-Magnon man was also a skilful hunter, but at a later stage cultivated his crops and even raised animals.

The Cro-Magnon man was the first artiest in the world. There were several cave paintings, stone engravings and carved figures which bear this out. He attempted to create his daily life through his art. The Neanderthal man attempted this too, but his drawings of the tools he used and the animals he hunted were rather crude.

3) i) mammals;

ii) protozoa;

iii) single-celled forms;

iv) two;

v) coelenterates;

vi) vertebrates;

vii) amphibians;

viii) reptiles;

ix) birds;

x) mammals.

Appendix

1) Recorded Texts

Extract 1

Now let me sum up the various methods of fighting malaria. They involve preventing mosquitoes from breeding; preventing mosquitoes from biting people; using protective drugs; and using insecticides. The only trouble is that some malaria germs are developing a resistance to modern drugs.

Extract 2

Rocks are classified according to their origin. First, there are those which result from the cooling of molten material, either deep within the earth as magma or flowing over it as lava. These are called igneous rocks. Then, there are those which result from sediments becoming solid. These are called sedimentary rocks. The final important group of rocks is the metamorphic one — which means rocks that have been changed in some way from their original state.

Extract 3

Ecosystems are not static — they change all the time. Plants and animals are able to adapt to changes in the physical environment. It is possible to predict changes. For example, when fire destroys the vegetation in a region, there will be certain changes. First grass and some flowers will grow. Then insects will appear. The wind will blow the seeds of small trees. These trees will grow and birds will appear. As the trees grow, the grass will disappear and a dense forest will develop. Some trees cannot live in a dense forest and will die. Other trees will develop and a community of birds and animals will live in the forest.

(From *Reading and Thinking in English:* Oxford University Press)

Extract 4

… Besides, according to the economists, we depend so much on this wasting and buying that people will probably be encouraged to consume even more in the years to come if the US economy is to prosper. In other words, these marketing experts say that 'the average citizen will have to step up his buying by nearly fifty per cent in the next dozen years, or the economy will sicken'. This means that the producers of household commodities will have to find new means of increasing their sales…

Extract 5

In the last lecture, we discussed the survival of animals in a desert — how some of them are biologically equipped to survive, while others survive by ingeniously adapting themselves to the environment. In this lecture, we shall talk about how plants survive in the dry climate and intense heat of the desert.

Extract 6

So we have discussed cytotoxic drugs, radiation therapy and surgery as some of the methods for the treatment of cancer. And talking of cures for cancer….. there used to be a Hakim in my village — an old man — who was said to cure it. He would give medicines prepared from some herbs he grew in his backyard. Actually, I think he was quite good. People would come to him from all over the country. My uncle was also cured by him. Unfortunately, he's dead now….

2) Text of the Lecture

As you know many of the routine activities in today's society are being performed by computers. For example, when we go on a journey our train tickets are reserved by computers. The bills we pay — electricity, telephone, for example — are calculated and printed by a computer. Diseases are also often diagnosed with the help of a computer.

What is this computer? Why and how was it invented? What are its different functions? How does it work? These are some of the questions that come to our mind. We shall deal with all of them in the course of our lectures. Today, however, we will concentrate on the history and development of the computer.

Computing, as you already know, has something to do with calculation. The very first calculating device used was the ten fingers of a person's hands. That is why, even today, we still count in tens and multiples of tens. Then the abacus was invented, a bead frame in which the beads are moved from left to right. There is evidence that it was used as far back as 3,000 BC. People went on using some form of abacus well into the 16th century. Today, in some parts of the world, very small children learn simple calculations on a kind of abacus. During the 17th and 18th centuries many people tried to find easy ways of calculating. J. Napier, a Scotsman, devised a mechanical way of multiplying and dividing, which is how the modern slide rule works. Henry Briggs used Napier's ideas to produce logarithm tables, which all mathematicians use today. Calculus, another branch of mathematics, was independently invented by both Isaac Newton, an Englishman, and Leibnitz, a German mathematician. The first real calculating machine appeared in 1820 as the result of several people's experiments. This type of machine, which saves a great deal of time and reduces the possibility of making mistakes, depends on a series of ten-tooth gear wheels. In 1830 Charles Babbage, an Englishman, designed a machine that was called'the Analytical Engine'. This machine attempted to cut out the human being altogether, except for providing it with the necessary facts about the problem to be solved. He never finished this work, but many of his ideas were the basis for building today's computers.

It is in the twentieth century that we enter into the computer age in the real sense. The two most important factors for this are: the rapid technological improvements from the early 1900s, and the availability of vast sums of money for computer development as a result of World War II. The first digital computer was completed in 1944. The man responsible for this invention was Professor Howard Aiken and some people from IBM. This was the first machine that could figure out long lists of mathematical problems, all at a very fast rate. In 1946 two engineers at the University of Pennsylvania, J. Eckert and J. Mauchly, built the first digital computer using parts called vacuum tubes, they named their new invention ENIAC, an acronym for Electronic Numerical Integrator and Calculator. Another important advancement in computers came in 1947, when John Von Newmann developed the idea of keeping instructions for the computer inside the computer's memory.

The first generation of computers, which used vacuum tubes, came out in 1950. These computers could perform thousands of calculations per second. In 1960, the second generation of computers was developed and these could perform work ten times faster than their predecessors. The reason for this extra speed was the use of transistors instead of vacuum tubes. Second generation computers were smaller, faster and more dependable than first-generation computers. The third-generation computers appeared in the market in 1965. These computers could do a million calculations a second, which is 1000 times as many as first generation computers. Unlike second-generation computers, these are controlled by tiny integrated circuits and are consequently smaller and more dependable. Fourth-generation computers have now arrived, and the integrated circuits that are being developed have been greatly reduced in size. Now, as many as 1000 tiny circuits fit into a single chip. A chip is a square or rectangular piece of silicon, usually from 1/10 to ¼ inch' upon which several layers of an integrated circuit are etched or imprinted, after which the circuit is encapsulated in plastic, ceramic and metal. Fourth-generation computers are 50 times faster than third-generation computers and can complete approximately 1,00,000 instructions per second.

At the rate computer technology is growing, today's computers will most certainly be obsolete by 1990. It has been said that if transport technology had developed as rapidly as computer technology, a trip across the Atlantic Ocean today would take a few seconds.

(Adapted from *English for Computer Science* by Norma D. Mullen and Charles Brown, Oxford University Press.)