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HEALTH AND FITNESS

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BLOCK 4 INTRODUCTION

If we are fit and healthy, we have the life force to carry out our activities with vibrancy and vigour. It is important as far as possible to understand our bodies, and if we by chance fall ill, to be able to face this tribulation with grace and equanimity and as far as possible to look for ways to cure ourselves.

In this **Block-4** we look at new discoveries in the field of medicine, problems of old age, unhealthy drugs and a great man's fight and victory against blindness.

The Units are as follows:

Unit 1 – Stem Cells

Unit 2 – Four Senses

Unit 3 – Aged People

Unit 4 – Drugs of Abuse

All these topics are dealt with using the skills of reading, listening, speaking and writing. We also enhance your vocabulary and give you exercises in grammar. This will enable you to improve your editing skills and help you to be more accurate in your spoken and written English.

Please read all the passages as these will not only increase your knowledge of the concerned subjects but will also improve your reading proficiency. You must also attempt all the activities and listen to the audio wherever required. We assure you that you will definitely improve your English.

Acknowledgements:

- 1 Address of Helen Keller at Mt. Airy from Internet (<http://www.afb.org/mylife/book.asp?ch=P3Ch4>)
- 2 A. P. Watts Ltd. and Mr. Ved Mehta for the passage 'A world of Four Senses' from *Face to Face*
- 3 Pledging Your Eyes (*Adapted from* <http://delhi.aidindia.org/bethechange/documents/eyepledgeFAQ.pdf>)
- 4 Ageing: An Emerging Challenge, adapted: From *Population*, Vol. 17, No. 11 (Nov. 1991)
- 5 Poem: At 62, by Nissim Ezekiel, from *Literary Half Yearly Vol. XXX No.2, July 1989*
- 6 Drugs of Abuse - Adapted from Information obtained from National Drug Dependence Treatment Centre, All India Institute of Medical Sciences by Shefali Ray
- 7 Text adapted from 'Coping Strategies and Alternate Activities', Information Booklet, Dr. Hem Raj Pal, Drug Dependence Treatment Centre, All India Institute of medical Sciences, Ghaziabad
- 8 Adapted from 'Arthritis, Frequently asked Questions, ©Dr. Rohini Handa, Department of Medicine, All India Institute of Medical Sciences, New Delhi

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UNIT 1 STEM CELLS

Structure

- 1.0 Objectives
- 1.1 Pre-Reading
- 1.2 Reading Comprehension: Stem Cells
- 1.3 Vocabulary
- 1.4 Grammar: Used to/get used to
- 1.5 Writing: Describing a Process
- 1.6 Listening: A Speech
- 1.7 Speaking
- 1.8 Let Us Sum Up
- 1.9 Answers

1.0 OBJECTIVES

This Unit attempts to develop in the learner ability to:

- read an expository text on a scientific topic and understand its main points;
- comprehend new lexical items using cues from within the text;
- make inferences from the text;
- make predictions;
- look for patterns and generalize;
- describe an object or a process in a scientific manner; and
- practice the structure ‘used to/get used to’.

1.1 PRE-READING

Activity 1

1. What do these words mean? Match the words/phrases in column A with those in column B.

| Column A | Column B |
|----------------------|---|
| Diabetes | a) a serious disease in which growth of confused cells form in the body and kill normal body cells |
| Coronary disease | b) a disease that causes pain and swelling in one or more joints of the body |
| Cancer | c) a condition in which the bones become weak and are easily broken |
| Hypertension | d) a medical condition caused by lack of insulin, which makes the patient pass a lot of urine and feel very thirsty |
| Parkinson’s Syndrome | e) a disease connected with the heart, especially the arteries that take blood to the heart |
| Osteoporosis | f) blood pressure that is higher than normal |
| Arthritis | g) a disease of the nervous system that gets worse over a period of time and causes the muscles to become weak and the limbs to shake |

2. Which of these diseases gets worse as time passes (a degenerative disease)?

.....
.....

1.2 READING COMPREHENSION: STEM CELLS

Read this passage on Stem Cells and answer the questions below it:

Stem cells are one of the most fascinating areas of biology today. Research on stem cells has shown how an organism develops from a single cell and how healthy cells replace damaged cells in adult organisms. Stem cells can be used effectively in the treatment of many diseases. Such cell-based therapies are called regenerative or reparative medicine.

1. What are stem cells?

Stem cells have two important characteristics that distinguish them from other types of cells. First, they are unspecialized cells that renew themselves for long periods through cell division. The second is that under certain physiologic or experimental conditions, they can be induced to become cells with special functions such as the beating cells of the heart muscle or the insulin-producing cells of the pancreas.

Scientists primarily work with two kinds of stem cells from animals and humans: embryonic stem cells and adult stem cells, which have different functions and characteristics. Scientists discovered ways to obtain or derive stem cells from early mouse embryos more than 20 years ago. Many years of detailed study of the biology of mouse stem cells led to the discovery, in 1998, of the process of isolating stem cells from human embryos and growing the cells in the laboratory. These are called human embryonic stem cells. The embryos used in these studies were created to treat infertility through in vitro fertilization procedures and when they were no longer needed for that purpose, they were donated for research with the informed consent of the donor.

Stem cells are important for living organisms for many reasons. In the 3- to 5-day-old embryo, called a blastocyst, stem cells in developing tissues give rise to the multiple specialized cell types that make up the heart, lung, skin, and other tissues. In some adult tissues, such as bone marrow, muscle, and brain, discrete populations of adult stem cells generate replacements for cells that are lost through normal wear and tear, injury, or disease.

Scientists believe that stem cells may, at some point in the future, become the basis for treating diseases such as Parkinson’s disease, diabetes, and heart disease.

They want to study stem cells in the laboratory so they can learn about their essential properties and what makes them different from specialized cell types. As scientists learn more about stem cells, it may become possible to use the cells not just in cell-based therapies , but also for screening new drugs and toxins and understanding birth defects. In order to develop such treatments, scientists are intensively studying the fundamental properties of stem cells, which include:

determining precisely how stem cells remain unspecialized and self-renewing for many years; and

identifying the signals that cause stem cells to become specialized cells.

(From the Internet <http://stemcells.nih.gov/info/basics/basics3.asp>)

2. What are the unique properties of all stem cells?

Stem cells differ from other kinds of cells in the body. All stem cells have three general properties: they are capable of dividing and renewing themselves for long periods; they are unspecialized; and they can give rise to specialized cell types.

Scientists are trying to understand two fundamental properties of stem cells that relate to their long-term self-renewal:

- why can embryonic stem cells proliferate for a year or more in the laboratory without differentiating, but most adult stem cells cannot; and
- what are the factors in living organisms that normally regulate stem cell proliferation and self-renewal?

An understanding of these two properties may make it possible to understand how cell proliferation is regulated during normal embryonic development or during the abnormal cell division that leads to cancer. Importantly, such information would enable scientists to grow embryonic and adult stem cells more efficiently in the laboratory.

Stem cells are unspecialized. One of the fundamental properties of a stem cell is that it does not have any tissue-specific structures that allow it to perform specialized functions like pumping blood through the body (like a heart muscle cell); or carrying molecules of oxygen through the bloodstream (like a red blood cell); or fire electrochemical signals to other cells that allow the body to move or speak (like a nerve cell). However, unspecialized stem cells can give rise to specialized cells, including heart muscle cells, blood cells, or nerve cells.

Stem cells are capable of dividing and renewing themselves for long periods. Unlike muscle cells, blood cells, or nerve cells — which do not normally replicate themselves—stem cells may replicate many times. This is called proliferation. A starting population of stem cells that proliferates for many months in the laboratory can yield millions of cells. If the resulting cells continue to be unspecialized, like the parent stem cells, the cells are said to be capable of long-term self-renewal.

The specific factors and conditions that allow stem cells to remain unspecialized are of great interest to scientists who have been able to grow stem cells in the laboratory after many years of trial and error.

Glossary

- i) **embryos**: a young animal or plant in the very stages of development before birth
- ii) ***in vitro fertilization***: fertilization that takes place outside a living body
- iii) **Parkinson's disease**: disease of the nervous system that gets worse over a period of time and causes muscles to become weak and the limbs to shake
- iv) ***cell-based therapies***: the treatment of a physical problem or a disease through the use of stem cells
- v) **proliferate**: increase rapidly in number

Check Your Progress 1

1. Reread the given passage and complete the sentences given below. Select the most appropriate phrase from those given.
 - i) Stem cells can be used profitably in treating diseases.
 - a) contagious
 - b) degenerative

- c) infectious
- d) none of the above
- ii) Stem cells are different from other cells because...
 - a) they are unspecialized cells which can renew themselves but cannot take on the function of specialized cells.
 - b) they are unspecialized cells which cannot renew themselves or take on the function of specialized cells.
 - c) they are unspecialized cells which can renew themselves and can, under special circumstances, take on the function of specialized cells
 - d) they are specialized cells which can renew themselves but cannot take on the function of other specialized cells.
- iii) The embryonic stem cells are taken from very young embryos that have been ...
 - a) created in the mother's body through a natural process
 - b) created and placed in the mother's womb for a certain period
 - c) created in laboratory conditions outside the mother's body
 - d) none of the above
- iv) A blastocyst has a lot of promise in regenerative therapy because...
 - a) it develops tissues that develop different kinds of specialized cells
 - b) it develops tissues that develop different kinds of unspecialized cells
 - c) it is easy to procure in the laboratory
 - d) it has highly specialized cells to begin with
- v) Amongst different organs in the human body the have the capacity to regenerate themselves in case of wear and tear, injury or disease due to the presence of some discrete cells.
 - a) heart, lung and liver
 - b) heart, lung and skin
 - c) heart, bone marrow and brain
 - d) brain, bone marrow and muscle
- vi) Cell-based therapies can be useful in diseases like...
 - a) fractures, diabetes and heart disease
 - b) Parkinson's disease, diabetes and heart disease
 - c) fractures, Parkinson's disease and diabetes
 - d) Parkinson's disease, fractures and heart disease
- vii) Embryonic stem cells are different from adult stem cells in their ability to ...
 - a) proliferate and differentiate as specialized cells right at the outset
 - b) proliferate only as unspecialized cells
 - c) proliferate without differentiating for a long time
 - d) proliferate without differentiating at all
- viii) The word proliferation means...
 - a) amplification
 - b) duplication
 - c) differentiation
 - d) replication

2. Given below are some statements. Say whether they are true or false.
 - i) Stem cells are trained to take on the functions of specialized cells.
 - ii) Special cells are such as can do special functions like make the heart beat, produce insulin.
 - iii) Scientists learnt to isolate the stem cells from the embryo by studying closely the method of isolating stem cells from embryos of animals like the mouse.
 - iv) The human embryonic cells are the ones that grew and multiplied during artificial fertilization outside the body.
 - v) The only use of stem cell that scientists can foresee is their use in diseases like diabetes, heart disease and nerve diseases.
 - vi) Stem cells need some signals to transform themselves into specialized cells.
 - vii) Stem cells can also help in the study of cancers and prohibiting their growth.
 - viii) Muscle cells, blood cells and nerve cells can replicate themselves.

Answer these questions.

3. Embryonic stem cells have a lot of potential in the treatment of which serious diseases.

.....

4. What characteristics of the stem cells are the scientists trying to study closely?

.....

5. What are the unique characteristics of stem cells that make them so valuable in the world of medicine?

.....

6. Do you think that extraction of embryonic stem cells is ethical? Why/ Why not?

.....

1.3 VOCABULARY

Check Your Progress 2

1. You would notice that the first paragraph of the text has two words ‘reparative’ and ‘regenerative.’ Reparative is a word derived from the word ‘repair’ [re+pair (adjectival form)] and it means ‘that which can be repaired’. Regenerative is a word derived from ‘generate’ which means to create ‘new ones of a kind’. Hence here it means therapy that allows the body to generate new cells.

Given below are a few more words that begin with ‘re’. Match them with their meanings given below.

- i) recuperative ii) respond iii) resuscitation iv) reconstructive
 v) remedial vi) restorative vii) refractory viii)relapse
 ix) recurrence x) regressive

- a) helping you to get better after you have been very ill or sick.
- b) making you feel strong and healthy again; medical treatment that repairs the body or a part of it
- c) to make somebody start breathing again or become conscious again after they have almost died
- d) to improve as a result of a particular kind of treatment.
- e) aimed at solving a problem, especially when this involves correcting or improving something that has been done wrong
- f) becoming or making something less advanced
- g) only used in context of medical treatment that involves reconstruction of a part of a person’s body which has been badly damaged
- h) happens again like illness
- i) a disease or medical condition that cannot be treated or cured
- j) fact of becoming ill again

2. There are words that are normally used for a certain specific contexts. Pick the appropriate words from those given below and complete the passage.

- anesthetist masks gauze instruments fetal (like a foetus)
 antiseptic theatre surgeon nursing anaesthesia

The large operationsmelt strongly of
 She looked at the shining steelas they lay on the side table. Also there was a lot of, cotton wool and some bigger instruments which she did not recognize. Soon the team arrived. Each was dressed in the gowns and meant for only such occasions. The nurse readied her by applying antiseptic and some local which would not let her feel any pain when theinjected her backbone with anaesthesia. The anesthetist arrived and asked her to get into theposition. Soon she felt a jab in her back. All this while the doctor was talking to her to distract her from what was happening. A few moments and she felt as if the lower part of her body was not hers. She felt no sensation there. The arrived soon after and she felt probing hands and fingers on her abdomen.

1.4 GRAMMAR: USED TO/GET USED TO

Read the paragraph given below:

Medical doctors **are used to** long working hours and have a grueling schedule. One wonders where they get so much of stamina. In fact this is a part of their training. It is during their internship and their residency programmes that doctors **get used to** heavy schedules and long duty hours. Soon it is a way of life.

We use ‘are/is + used to’ with reference to things/events/actions.

We *are used to* getting up early in the morning.

The soldiers *are used to* living on dry rations in remote areas.

We use 'get used to' with events like frequent rains or hot spells of weather as well as situations. Examples:

Don't worry, you will soon *get used to* the heat and humidity of Chennai.

Old people feel sad when their children leave home. But they *get used to* their loneliness gradually.

Check Your Progress 3

1. Read the sentences and complete them. Use 'be/get+ used to/not used to' appropriately as shown in the sentences above.

i) When I reached New York it was snowing. I such weather. I pulled out my woollens and wore them layer upon layer till I felt warm and cozy. But now I had a new problem. I was unable to move comfortably as I to wearing heavy woollens. Seven years have passed since then. Now I have to the cold. I don't need to pile woollens on my body. I manage with a thick jacket.

ii) She was taken aback. She was to finish her dinner at 6.30 which was served in the large mess. She eating her dinner so early. Surely she would not be hungry at that time. That was her teatime! But she decided to follow the regimen of the ashram. Now six months later she to the routine. She does not miss her evening tea and snacks either.

2. What would they say in these situations? Use *I'm (not) used to* and complete the sentences.

i) *Lata's school starts very early. She leaves home at 6.30 in the morning. She does not mind it.*

Friend: Doesn't getting up so early bother you sometimes?

Lata: Not really. I this schedule. I have been doing it for the last fifteen years.

ii) *Shyam is new to the hostel. He likes to bathe everyday and wear clean clothes. He does not like to share his clothes with anyone.*

Friend: Hey, Shyam why are you worried about the laundry not arriving? Why don't just take my shirt and wear it for today?

Shyam: I am afraid I don't like the idea. I sharing clothes with anyone.

iii) *Mr. Gill has been his own master for so many years. He has worked on his own terms and has had no boss in the real sense of the term. Now he has joined a company.*

Manager: Well, Mr. Gill you will be part of my team? Is that fine with you?

Mr. Gill: Not exactly. I taking orders from anyone. But I guess I will have to

iv) *Neera was prescribed four medicines by her doctor. She had never taken so many medicines before. So she would often forget them.*

Doctor: I find you do not take your medicines regularly.

Neera: I'm sorry, Doctor, I forget. You see I so many medicines. Don't worry I think I it in a week or two.

v) *Mr. Lobo is happy in the Old People’s Home. It was difficult in the beginning but now he has got adjusted to the people around him.*

Friend: Mr. Lobo, do you like it here in the Home?

Mr. Lobo: Well, you can say that I it

1.5 WRITING: DESCRIBING A PROCESS

When we write an essay describing a process, we need to keep in mind the audience. If they are technical people who know the terms and expressions, we need not explain the terms. If, however, we are writing for lay people who may not have the technical knowledge we need to explain certain terms and procedures.

Check Your Progress 4

Given below is a grid that contains the essential questions and their answers in brief. Use the ideas to describe the process of ‘Liposuction’, a technique by which excess fat from the body is removed.

Your write-up will contain the following sub headings: Introduction, General methods, types of methods, the right candidates for the procedure, instruments or skills required, steps of the procedure, risks and conclusion.

| | | |
|----|---|---|
| 1. | <p>What is the process you are trying to explain?</p> <p>Who is it important for?</p> <p>How does it help them?</p> | <ul style="list-style-type: none"> • Liposuction, a cosmetic surgery, removes fat from different parts of the body- abdomen, thighs, neck, waist, buttocks etc. • People with excessive fat • For cosmetic purposes, people with no time or ability to exercise or diet • Easy method to lose fat to make body shapely |
| 2. | <p>How is it done?</p> | <p>Fat removed through a hollow tube (cannula); quantity of fat removed in a session depends upon the doctor and patient; at the most 5 kgs can be removed; local or general anaesthesia used.</p> |
| 3. | <p>Are there different ways of doing the process? If so, what are they?</p> | <ul style="list-style-type: none"> • Wet liposuction in which a little fluid (less than the quantity of fat to be removed) containing anaesthesia, medicine to prevent bleeding and a little salt • Super wet, same amount of fluid as the amount of fat to be removed, complete anaesthesia is used, for high amount of liposuction • Laser assisted liposuction, a cannula tipped with a diode laser emitter is used to emulsify the fat • Tumescence Liposuction, a large amount of fluid 3 to 4 times the quantity of fat to be removed, creates space between muscle and fatty tissue. |
| 4. | <p>Any important requirement</p> | <ul style="list-style-type: none"> • Patient needs to be healthy, |

| | | |
|----|---|---|
| | for the procedure/Who are the right candidates for the procedure? | <ul style="list-style-type: none"> • Over 18 years but not old • Would have tried other normal methods of losing fat and failed • Would have given up smoking for sometime before the procedure |
| 5. | What skills/ equipment are needed for this? | <ul style="list-style-type: none"> • Plastic surgeon, highly skilled in his job • Ability to monitor the general condition of the patient during procedure • Cannula • Anesthesia, drugs to stop bleeding, lasers diodes for laser method, great skill to emulsify the fat and suck it thorough power or ultra sound. |
| 6. | How many steps are there in the process? | <ul style="list-style-type: none"> • Preparation of the patient, informing of risks, making sure he/she is a good candidate • administering antibiotic an hour before • taking photographs for before and after comparison • marking of target area • application of sterilizing solution to relevant areas, • giving sedatives or anesthesia • making a small incision, giving saline fluid to the patient • conducting the liposuction • monitoring the blood pressure, heart beat and blood oxygen level • stitching the incision or leaving it open • discharging patient if fit enough to walk home in case general anesthesia not given. |
| 7. | Recovery and risks | <ul style="list-style-type: none"> • Bandages or a compression garment for a few days • Removing stitches if required • Giving painkillers • Advising to drink a lot of water • No heat or cold packs on the affected area • There may be dents in skin to show gaps between muscle and fat • Skin may wrinkle • Scars and bruising which eventually disappear • Infection, allergy or damage to the skin |

| | | |
|---|------------|---|
| 8 | Conclusion | <ul style="list-style-type: none"> • Advisable for those who cannot diet or exercise and who have no normal way of losing fat. • When excessive fat is a hindrance to daily activities • Yet many undertake it to look good and shapely without much effort. They wish to lose fat the lazy way. |
|---|------------|---|

The learner would put these in eight short paragraphs and use connectors like these: *first of all, initially, later, in order to, before, so that, first, second, third, etc., simultaneously, next, soon after, last but not the least* or any other as required.

1.6 LISTENING: A SPEECH

Check Your Progress 5

Listen to this address given by Helen Keller and answer the questions that follow. You may read the questions before you listen to the speech. You may listen to the speech as many times as necessary.

1. What was Helen Keller afflicted with?

2. Did she overcome some of her physical problems? Who helped her in doing so?

3. What kind of a person does Helen Keller appear to be in her speech?

4. What is her message to people who are trying to live their dream or trying to soar?

5. What is the meaning of 'living words'? How do they affect our lives?

6. To what has she compared her first spoken words?

1.7 SPEAKING

You have just heard Helen Keller who was both blind and deaf give an inspiring speech about how we can achieve our dreams with courage and perseverance.

In pairs, in your study centre, discuss what you need to do in order to achieve your own dreams.

You may mention things like aims/ambitions, effort, planning, obtaining relevant information, seeking guidance, working towards getting a seat in the institution of your choice, obtaining training, practicing, being practical, facing difficulties with courage and not letting them get in your way.

You may use modals like: can, could, should, need to, needn't, ought/ought not to, will, would etc.

1.8 LET US SUM UP

In this unit we have given you practice in reading comprehension and enhanced your vocabulary through an expository text on 'Stem Cells'. In the writing task our emphasis was on process writing. Using information in tabular form you were required to write on Liposuction. The listening passage was a speech by Helen Keller, a famous physically challenged person who succeeded despite severe handicaps. In the grammar part we gave you practice in the structures: 'used to/get used to'. Please go through the unit carefully and answer the questions faithfully.

1.9 ANSWERS

Activity 1

1. Matched columns:

| Column A | Column B |
|----------------------|---|
| Diabetes | d) a medical condition caused by the lack of insulin, which makes the patient produce a lot of urine and feel very thirsty |
| Coronary disease | e) a disease connected with the heart especially the arteries that take blood to the heart |
| Cancer | a) a serious disease in which growth of confused cells, form in the body and kill normal body cells |
| Hypertension | f) blood pressure that is higher than normal |
| Parkinson's Syndrome | g) a disease of the nervous system that gets worse over a period of time and causes the muscles to become weak and the limbs to shake |
| Osteoporosis | c) a condition in which the bones become weak and are easily broken |
| Arthritis | b) a disease that causes pain and swelling in one or more joints of the body |

2. Diseases like Osteoporosis and Parkinson's Syndrome get worse as time passes.

Check Your Progress 1

1. Completed sentences:
 - i) Stem cells can be used profitably in treating (b) *degenerative* diseases.
 - ii) Stem cells are different from other cells because (c) *they are unspecialized cells which can renew themselves and can, under special circumstances, take on the function of specialized cells.*
 - iii) The embryonic stem cells are taken from very young embryos that have been (c) *created in the laboratory conditions outside the mother's body.*
 - iv) A blastocyst has a lot of promise in regenerative therapy because a) *it develops tissues that develop different kinds of specialized cells.*
 - v) Amongst different organs in the human body the (c) *brain, bone marrow and muscle* have the capacity to regenerate themselves in case of wear and tear, injury or disease due to the presence of some discrete cells.
 - vi) Cell-based therapies can be useful in diseases like (a) *Parkinson's disease, diabetes and heart disease.*
 - vii) Embryonic stem cells are different from adult stem cells in their ability to (c) *proliferate without differentiating for a long time.*
 - viii) The word proliferation means (a) *replication.*

2. True or False.
 - i) Stem cells are trained to take on the functions of specialized cells. **T**
 - ii) Special cells are such as can do special functions like make the heart beat, produce insulin. **T**
 - iii) Scientists learnt to isolate the stem cells from the embryo by studying closely the method of isolating stem cells from embryos of animals like the mouse. **T**
 - iv) The human embryonic cells are the ones that grew and multiplied during artificial fertilization outside the body. **T**
 - v) The only use of stem cell that scientists can foresee is their use in diseases like diabetes, heart disease and nerve diseases. **F**
 - vi) Stem cells need some signals to transform themselves into specialized cells. **T**
 - vii) Stem cells can also help in the study of cancers and prohibiting their growth. **T**
 - viii) Muscle cells, blood cells and nerve cells can replicate themselves. **F**

3. Embryonic stem cells have a lot of potential in the treatment of following serious diseases:
 - i) for treating Parkinson's disease, heart disease and diabetes.
 - ii) for studying cancers and controlling their growth.
 - iii) for screening new drugs and therapies.
 - iv) for studying birth defects.

4. Scientists are trying to study closely the following characteristics of the stem cells:
 - properties related to their long term self-renewal
 - how embryonic stem cells proliferate as unspecialized cells for a long time
 - the factors in living organisms that normally regulate stem cell proliferation and self-renewal

- how and why abnormal cell division begin to take place
5. Following are the unique characteristics of stem cells that make them so valuable in the world of medicine:
- their ability to renew themselves and proliferate as unspecialized cells
 - their ability to take on the functions of specialized cells
6. Extraction of embryonic stem cells is ethical due to following reasons:
- these are extracted from the cells that are no longer needed after an in vitro fertilization. So no one is hurt.
 - these are taken with the consent of the donors.

Check Your Progress 2

1. i) **recuperative** (a) helping you to get better after you have been very ill or sick.
- ii) **respond** (d) to improve as a result of a particular kind of treatment.
- iii) **resuscitation** (c) to make somebody start breathing again or become conscious again after they have almost died.
- iv) **reconstructive** (g) only used in context of medical treatment that involves reconstruction of a part of a person's body which has been badly damaged.
- v) **remedial** (e) aimed at solving a problem, especially when this involves correcting or improving something that has been done wrong.
- vi) **restorative** (b) making you feel strong and healthy again, medical treatment that repairs the body or a part of it.
- vii) **refractory** i) a disease or medical condition that cannot be treated or cured.
- viii) **relapse** j) fact of becoming ill again.
- ix) **recurrence** h) happens again, like illness.
- x) **regressive** f) becoming or making something less advanced.

2. Completed passage:

The large operation *theatre* smelt strongly of *antiseptic*.

She looked at the shining steel *instruments* as they lay on the side table. Also there was a lot of *gauze*, cotton wool and some bigger instruments which she did not recognize. Soon the *nursing* team arrived. Each was dressed in the gowns and *masks* meant for only such occasions. The nurse readied her by applying antiseptic and some local *anesthesia* which would not let her feel any pain when the *anesthetist* injected her backbone with anesthesia. The anesthetist arrived and asked her to get into the *fetal* position and then she felt a jab in her back. All this while the doctor was talking to her to distract her from what was happening. A few moments and she felt as if her lower part of her body was not hers. She felt no sensation there. The *surgeon* arrived soon after and she felt probing hands and fingers on her abdomen.

Check Your Progress 3

1. Completed sentences:

- i) When I reached New York it was snowing. I **was not used to** such weather. I pulled out my woollens and wore them layer upon layer till I felt warm and cozy. But now I had a new problem. I was unable to move comfortably as I **was not used to** wearing heavy woollens. Seven years have passed since then. Now I have **got used to** the cold. I don't need to pile woollens on my body. I manage with a thick jacket.

- ii) She was taken aback. She was to finish her dinner at 6.30 which was served in the large mess. She **was not used to** eating her dinner so early. Surely she would not feel hungry at that time. That was her teatime. But she decided to follow the regimen of the ashram. Now six months later she **has got used to** the routine. She does not miss her evening tea and snacks either.
2. Completed sentences:
- i) Lata: Not really. I **have got used to this schedule**. I have been doing it for the last fifteen years.
- ii) Shyam: I am afraid I don't like the idea. I **am not used to** sharing clothes with anyone.
- iii) Mr. Gill: Not exactly. I **am not used to** taking orders from anyone. But I guess I will have to **get used to it**.
- iv) Neera: I'm sorry, Doctor. I forget. You see I **am not used to** so many medicines. Don't worry I think I **will get used to it** in a week or two.
- v) Mr. Lobo: Well, you can say that I **have got used to it**.

Check Your Progress 4

Do it yourself.

Listening text: Address of Helen Keller at Mt. Airy

If you knew all the joy I feel in being able to speak to you to-day, I think you would have some idea of the value of speech to the deaf, and you would understand why I want every little deaf child in all this great world to have an opportunity to learn to speak. I know that much has been said and written on this subject, and that there is a wide difference of opinion among teachers of the deaf in regard to oral instruction. It seems very strange to me that there should be this difference of opinion; I cannot understand how any one interested in our education can fail to appreciate the satisfaction we feel in being able to express our thoughts in living words. Why, I use speech constantly, and I cannot begin to tell you how much pleasure it gives me to do so. Of course I know that it is not always easy for strangers to understand me, but it will be by and by; and in the meantime I have the unspeakable happiness of knowing that my family and friends rejoice in my ability to speak. My little sister and baby brother love to have me tell them stories in the long summer evenings when I am at home; and my mother and teacher often ask me to read to them from my favourite books. I also discuss the political situation with my dear father, and we decide the most perplexing questions quite as satisfactorily to ourselves as if I could see and hear. So you see what a blessing speech is to me. It brings me into closer relationship with those I love, and makes it possible for me to enjoy the sweet companionship of a great many persons from whom I should be entirely cut off if I could not talk.

I can remember the time before I learned to speak, and how I used to struggle to express my thoughts by means of the manual alphabet—how my thoughts used to beat against my finger tips like little birds striving to gain their freedom, until one day Miss Fuller opened wide the prison-door and let them escape. I wonder if she remembers how eagerly and gladly they spread their wings and flew away. Of course, it was not easy at first to fly. The speech-wings were weak and broken, and had lost all the grace and beauty that had once been theirs; indeed, nothing was left save the impulse to fly, but that was something. One can never consent to creep when one feels an impulse to soar. But, nevertheless, it seemed to me sometimes that I could never use my speech-wings as God intended I should use

them; there were so many difficulties in the way, so many discouragements; but I kept on trying, knowing that patience and perseverance would win in the end. And while I worked, I built the most beautiful air-castles, and dreamed dreams, the pleasantest of which was of the time when I should talk like other people, and the thought of the pleasure it would give my mother to hear my voice once more, sweetened every effort and made every failure an incentive to try harder next time. So I want to say to those who are trying to learn to speak and those who are teaching them: Be of good cheer. Do not think of to-day's failures, but of the success that may come tomorrow. You have set yourselves a difficult task, but you will succeed if you persevere, and you will find a joy in overcoming obstacles—a delight in climbing rugged paths, which you would perhaps never know if you did not sometime slip backward—if the road was always smooth and pleasant. Remember, no effort that we make to attain something beautiful is ever lost. Sometime, somewhere, somehow we shall find that which we seek. We shall speak, yes, and sing too, as God intended we should speak and sing.

<http://www.afb.org/mylife/book.asp?ch=P3Ch4>

Check Your Progress 5

1. She was blind and deaf.
2. Yes, she did with the help of Mrs. Fuller and with a lot of on her part.
3. Strong, determined and not to be cowed down by problems in life. Celebrates the fact that she is alive. Loves her family and is grateful to her teachers.
4. Set a task and work towards it. Never give up in the face of difficulties. Life will throw challenges. Meet them with courage and move ahead.
5. These are words that are spoken and not used as text in a book. Words carry sounds and these carry our feelings and warmth which allows us to make ourselves clear and connect with our listeners.
6. Birds, for they flew (took wing). But her initial words had shattered wings for she had difficulty in articulating her first words and her initial spoken language was clumsy and strained.

UNIT 2 FOUR SENSES

Structure

- 2.0 Objectives
- 2.1 Reading Comprehension: A World of Four Senses
- 2.2 Vocabulary
- 2.3 Grammar: Relative Clause
- 2.4 Writing: An Essay
- 2.5 Listening and Speaking: Pledging Your Eyes
- 2.6 Let Us Sum Up
- 2.7 Suggested Reading
- 2.8 Answers

2.0 OBJECTIVES

In this Unit our aim is to help you:

- appreciate a biographical passage;
- enhance vocabulary;
- use words both as nouns and verbs;
- practice the relative clauses;
- write a short composition based on your reaction to the passage read; and
- listen to a question and answer session on ‘pledging one’s eyes after death’.

2.1 READING COMPREHENSION: A WORLD OF FOUR SENSES

Here is an extract from Ved Mehta’s autobiography, *Face to Face*.

A world of Four Senses

¹ In India as elsewhere every girl or boy has fond and warm memories of his childhood, from the day he begins to talk to his mother and father in broken syllables. Invariably a child learns and recognizes the faces of his mother and father, of sisters and brothers who play with him constantly, or the servants who prepare his meals or watch him play in the nursery. He must also remember the rich colours of the butterflies and birds which children everywhere always love to watch with open eyes. I say must, because when I was three and a half, all these memories were expunged, and with the prolonged sickness I started living in a world of four senses – that is, a world in which colours and faces and light and darkness are unknown.

² If my age and the length of the sickness deprived me of the treasured memories of sight, they also reduced things which are valued so much in the sighted world to nothing more than mere words, empty of meaning. I started living in a universe where it was not the flood of sunshine streaming through the nursery window or the colours of the rainbow, a sunset or a full moon that mattered, but the feel of the sun against the skin, the slow drizzling sound of rain, the feel of the air just before the coming of the quiet night, the smell of the grass on a warm morning. It was a universe where at first – but only at first – I made my way fumbling and faltering.

³ It was good that I lost my sight when I did, because having no memories of seeing, there was nothing to look back to, nothing to miss. I went blind in November 1937. At that time we were living in Gujarat, in the province of Punjab in northern India. After my sickness we moved to Lahore, a few miles away, but the procession of relatives who came to sympathize made my father ask for another transfer, this time to Karnal, where we had neither friends nor relatives. There we got a cottage on the canal bank, built in very peaceful and quiet surroundings.

⁴ As might be expected, in the beginning it was tough for all of us – for my mother and my father, for my three sisters and my brother, and for me, too. The illness had left me weak. The servants shirked me as though I were an evileye personified. My sister treated me with care, as though I were a fragile doll, and my mother wept. My father, who was a doctor in the public health service, was grateful that my spine had been tapped in time, for a delay in the lumbar puncture would have affected my mind or endangered my life. But he, like the rest, despaired.

⁵ A state of complete inaction therefore followed my blindness. In part this was due to the immediate shock of the illness, but more important still, the impasse was caused by ignorance of the potentialities of a blind child, since the only blind persons my parents saw were beggars.

⁶ My father's wide medical experience had prepared him for an acceptance of this tragedy, and he understood that any course of action must begin with the realization that I would be blind for the rest of my life. My mother, on the other hand, neither would nor could convince herself that my sight would never return; she did not have the medical experience of my father, and she blamed something in her past for the tragedy.

⁷ The family pundit, upon whose advice mother had relied almost from her childhood, was called in and consulted. 'He knows more about religion and science,' Mother said with pride, 'than any other pundit in our province.' I was taken before him, and for a long time I sat in my mother's lap while he was lost in reflection. After a while, he took my hand and thoroughly examined the lines. Then he looked at Mother's and he studied her forehead, mumbling steadily. He said he found himself inadequate, and more pundits would have to be consulted. At his request, they were called and questioned exhaustively as to what atonement could be made. Although their analyses and remedies differed considerably, they all agreed that by doing penance for her sins, my mother could improve my chance of regaining sight.

⁸ Along with this religious counsel was coupled a series of visits to hakims (physicians who followed the Greek or Unani system of medicine). These quacks prescribed all types of drops to put in my eyes. The surmas, which were administering at all hours of the day and night, burned and stung my eyes; and the only soothing part of the otherwise miserable treatment was the loving caress of Mother afterwards.

⁹ One night when my mother was administering these eye drops, and I was protesting with loud cries, my father unexpectedly returned. He asked and I told him why I was crying. He was outraged.

¹⁰ He questioned Mother as to how long this had been going on, but she would not answer him. She was prepared to bear any outburst silently and the longer she stayed silent, the more irritated my father grew. He said harshly that her superstitions far surpassed those of any village woman he had ever known. He went on to say that any person with the slightest consideration for her husband would have readjusted her ways in ten years of marriage. All his efforts to break her from her deplorable past had been in vain. He did not want his children brought up in such a tradition.

¹¹ Even then she did not defend herself. Just as my mother had silently suffered the verdict of my blindness, the self-abasement imposed by the pundit, and the pleading which preceded the administration of my eye drops, so now she suffered my father's anger quietly. He forbade her to make any more visits to the hakims, and strictly prohibited the purchase of any more surmas. Then he gently lifted me from her arms, and took me away. With steady hands, he bathed my stinging eyes. After this incident, even though we stopped going to hakims, now and then applications of surmas continued until I was eleven. But they were very mild, and my mother always obtained my consent in advance.

¹² I remember other little tests my mother put me through. One day she perceived that just before I arrived at a closed door I would stop and reach for the handle to open it. She began letting me go about the house by myself and she discovered that I seldom ran into things. She credited the hakim and the stinging drops, but every evening she would hold her hand up before my face and ask me to tell her where it was. She used to shake her hand before me so that myriads of pores next to, below and above my ears could feel her hand even when it was a foot away. The air currents helped me to spot it. But she wasn't satisfied with this. She wanted me to tell her whether the light was on or off. When I failed this test she was unhappy again, but I soon caught on and would listen for the click of the switch and then tell her. Sometimes she would flip the switch very rapidly time and again, and I would always count the clicks and give her the right answer.

¹³ The reason for the conflicting approaches of Mother and Father towards my blindness lay in each of their backgrounds. My mother had come from a large middle-class family, and had three sisters and three brothers. She was the eldest of the sisters and at the time when she came to attend school it was still customary for even the best-educated women to go only as far as the eighth grade. Thus her education had ceased with simple arithmetic and Hindi grammar. From that time until her marriage five years later she had devoted herself to cooking, sewing, and caring for her younger brothers and sisters. While these skills trained her to be an excellent mother, they did not prepare her to cope rationally with an unfamiliar tragedy such as blindness. She found the weapons of love and affection useless. If she pampered me as her maternal instinct dictated, my father would scold her; and if she tried to use the medical cures which had been practiced and handed down from mother to daughter for generations, my father would forbid their use.

¹⁴ Although in my case there was an obstacle which seemed insurmountable, my father was determined to leave no avenue unexplored. He read all available literature on blindness. He learned that almost all India's blind people had turned to begging for their livelihood, or had become owners of pan and biri shops. He was determined that this was not going to be the fate of his second son, and he started corresponding with many of the prominent educational authorities, asking their advice. The replies were not optimistic. For the blind, educational facilities and personnel were limited, and often the school became semi-asylums with all ages grouped together in classes without any gradation system.

¹⁵ My father still persisted, for he knew that my staying at home would result in over-indulgence. He realized, as well, that I would have difficulty playing with normal children, and that my mother would always be afraid to let me leave the immediate premises.

¹⁶ At last he heard of Dr. R.M. Halder, Principal of Dadar School for the Blind in Mumbai. My father wrote to him asking advice. Dr. Halder showed unusual interest in my case, and promised to take special care and personal responsibility for me if I were sent to his school.

¹⁷ When my mother learned of my father’s decision to send me to the Dadar School, she was appalled. She had never been to Mumbai, and to her it might have been a foreign country. She could not understand the reason for sending me nine hundred miles away from home to attend school with orphans and children of the poorest classes. After all, another year at home could not but help my development. Yet she placed her faith in my father’s superior judgment, and in her quiet way she agreed.

Check Your Progress 1

Answer the following questions:

1. What are some of the things children everywhere learn and recognize?

2. The author’s childhood was different from that of other children. Why?

3. The author’s perception of the world was confined only to four senses. Pick out phrases which highlight the use of the senses of
 - i) Hearing
 - ii) Touch
 - iii) Smell
4. Why does he say “It was good that I lost sight when I did”?

5. From Lahore the family moved to Karnal, where they had neither friends nor relatives. But they were happy. Why?

6. ‘The servants shirked me as though I were an evil eye personified.’ This means that the servants thought I was
 - i blind.
 - ii a curse on the family.
 - iii a spoilt child.
 (Select the correct alternative.)
7. What were the two reasons for ‘a state of complete inaction’ after the author’s blindness?

8. Why did the author’s father object to the treatment prescribed by hakims and the family pandit?

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9. How did the author manage to tell his mother whether the light was on or off?

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10. What was the main difference between the attitudes of the author’s mother and his father towards his blindness?

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11 a. The author’s father decided to send him nine hundred miles away from home to school. Was it the right thing to do? If so, why?

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11 b. What was his mother’s reaction to it?

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2.2 VOCABULARY

Check Your Progress 2

1. Words under **A** mean the opposite of those under **B**. Match them.

Example: empty-full

- | A | B |
|---------------|------------------|
| a) empty | i) sighted |
| b) optimistic | ii) drop |
| c) blind | iii) full |
| d) quiet | iv) knowledge |
| e) lift | v) stinging |
| f) ignorance | vi) loud |
| g) soothing | vii) pessimistic |

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2. Choose the correct meaning of each of the following words:

- | | |
|-------------------|--|
| a) shirk | i) accuse |
| | ii) avoid |
| | iii) annoy |
| b) fragile | i) which works smoothly |
| | ii) which functions independently |
| | iii) which breaks easily |
| c) surpassed | i) exceeded |
| | ii) embarrassed |
| | iii) established |
| d) atonement | i) making amends for a wrong-doing |
| | ii) an action for pleasure |
| | iii) toning oneself in order to look beautiful |
| e) insurmountable | i) which cannot be made possible |
| | ii) which cannot be avoided |
| | iii) which cannot be overcome |
| f) indulging | i) patronizing |
| | ii) pampering |
| | iii) pestering |

3. Each of the following words can be used both as a noun and a verb. Fill in the blanks using the given words in their appropriate forms:

despair, spot, hand, report, remedy

- i) Surajkund is a popular picnic..... in Haryana.
- ii) A bird in is worth two in the bush.
- iii) The refugee's..... of ever seeing his family again filled us with pity.
- iv) The discovery of a new planet has been in today's papers.
- v) The seems more painful than the disease.
- vi) We cannot always observe the traditions down to us from the past.
- vii) You can a friend even in a crowd.
- viii) Why he of success in his new profession was because he had a bad boss.
- ix) The committee has been asked to hand in its in four months.
- x) Don't be unhappy; your faults of pronunciation can be easily.....

2.3 GRAMMAR: RELATIVE CLAUSE

Look at this sentence:

... the procession of relatives who came to sympathize made my father ask for another transfer,...

Here the main clause is

...*the procession of relatives*

But I want to tell you which *relatives I am talking about*. So I add the clause *who came to sympathize* to define the noun *boy*. Such a clause is called a **defining relative clause**.

Here are some more examples:

- i) This is the house *that jack built*.
- ii) Please return the books *which I lent you yesterday*.

Note that defining relative clauses generally begin with who, which or that.

Check Your Progress 3

1. Fill in the blanks using who, which or that:

- i) The man is standing at the door is an actor.
- ii) The policy the government is following these days is praiseworthy.
- iii) Teachers generally like students are punctual and hardworking.
- iv) The play..... we saw last night was hilarious.
- v) You are telling a story is unbelievable.

2. Join each pair into a single sentence using *who*, *which* or *that* in place of the word in italics:

- i) The woman is my father’s sister.
She came to see me last week.

.....

- ii) The shop didn’t have the book.
I wanted *it*.

.....

- iii) How can I forget a friend?
He was so good to me.

.....

- iv) Write a story.
It would interest everyone.

.....

- v) The car will fetch a high price.
It was driven by the world champion.

.....

3. Complete the following sentences by adding suitable relative clauses:

- i) Do you remember the name of the person
- ii) What is it
- iii) Give me a present
- iv) Did you collect the parcel
- v) I am yet to meet someone

Now look at this sentence:

My father, who was a doctor in the public health service, was grateful that my spine had been tapped in time. Here the relative clause *who was a doctor in the public service*, does not define the noun *father*, because I have only one father. It only gives additional information about him. Such a clause is called a **non-defining relative clause**. It is necessary to put a comma before and after such a clause.

Check Your Progress 4

1. Join each pair into a single sentence using *who* or *which* in place of the word in italics. Don't forget to put a comma before *who* or *which*, and also at the end of the clause if it comes in the middle of the sentence.

i) The country now has many TV relay stations.

They are part of the national network.

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ii) His latest book has become a great success.

It was well reviewed by critics.

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iii) Tourists are fascinated by our folk dances.

They are interested in cultural programmes.

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iv) This year's harvest has been rather poor.

It looked like a good one for some time.

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v) Many Indian scientists live in America.

They are very well known for their knowledge and skill.

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2. Rewrite the following sentences by adding clauses relating to the words in italics. Use *who* or *which* at the beginning of the clause and don't forget the commas. The words in brackets against each sentence will give you the clues.

Example:

My grandfather was once a keen sportsman. (age 75)

My grandfather, who is now 75, was once a keen sportsman.

i) My *health* doesn't allow me to take part in strenuous games. (Poor health)

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ii) Last year's *floods* damaged a lot of property. (too sudden)

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iii) *P.T. Usha* was one of the best Indian athletes. (her appearance on TV last month)

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iv) *Last night's meeting* broke up in disorder. (two rival groups attended)

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v) *Trams* are still used in Calcutta. (no more in Delhi)

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Q. What is the procedure to pledge one's eyes?

To pledge your eyes you just need to fill up a simple half-page eye-pledging form. Now is a very good time to talk to your family about donation and seriously consider pledging your eyes. You will receive an eye-card which you can keep in your wallet for reference in the event of an accidental death. Please remember, a shortage of corneas exists today because pledged donors forget to tell their families of their wishes. The eyes can be donated up to 6 hours after death.

Q. Who can pledge eyes?

The great thing about corneal tissue is that everyone can donate. Your blood type doesn't have to match. It doesn't matter what color your eyes are or how good your eyesight is. Donor age is not as important as for other organs or tissues - most eye donors are in their 70's. Aside from those suffering from severe infections, hematological malignancies or a few highly communicable diseases such as HIV and hepatitis, most causes of death do not render people unsuitable as donors. It is important for individuals wanting to be donors to inform family members of their wishes.

Q. I wear spectacles. Can I also donate eyes?

Of course you can. Eyesight does not change your eligibility to donate eyes.

Q. Does age have anything to do with eye donation?

No, as already mentioned, donor age is not important in eye donation.

Q. What happens at the time of eye donation?

When consent is given for eye donation, it means that a trained professional who works with the Eye Bank will remove the eyes within a few hours after death. At the time of death, the family members need to call the Eye Bank (1919 for Delhi). Eye removal is a surgical procedure performed under sterile conditions and typically takes an hour or less to complete. Trained Eye Bank personnel come to the residence of the deceased and remove the eyes from the dead. He also takes a 10ml blood sample for testing for possible infections.

Based on the results of a thorough evaluation, a determination can be made about whether the corneas can be transplanted. Corneas that have passed the evaluation for transplantation are offered to local corneal surgeons whose patients have been listed with the Eye Bank.

If necessary precautions have been taken after death, like keeping a wet cloth on the eyes of the donor, not using a fan (that can dry the eyes) etc., the corneas are usually good for transplantation.

Q. Will eye donation change the appearance of the donor?

No. Most eye banks replace the removed eyes with stone eyes so that the eye sockets look full and the appearance of the donor does not change.

Q. What are the costs involved in eye donation?

Eye donation does not have any costs involved. The removal of eye is provided free of cost by the Eye Bank.

Q. Will the recipient be told who donated the eyes?

No. The confidentiality of the donor and the recipient is strictly maintained according to international norms.

Q. What other organs/tissues can be donated?

Eyes/Corneas, Lungs, Heart, Liver, Kidneys, Pancreas, Fascia, Skin, Cartilage/Tendons, Bone, Small Intestine. Brain tissue for research may also be donated to help unlock the mystery behind Autism.

Keep in mind that you may one day need a transplant yourself. At the time you are waiting for that transplant, won't you be hoping that someone just like you has made the decision to donate?

(Adapted from <http://delhi.aidindia.org/bethechange/documents/eyepledgeFAQ.pdf>)

Check Your Progress 6

1. Say whether the following statements are true or false according to this dialogue:
 - i) Eye pledging merely requires that you sign up with an eye bank to donate your eyes after death and inform your family members.
 - ii) When eyes are donated, the vision of two people suffering from corneal blindness can be restored.
 - iii) An eye-card is essential for all potential donors so that family members can see it at the time of death.
 - iv) The age of the donor is an important criteria where donation is concerned.
 - v) For an eye donation to take place successfully, it is important to keep a wet cloth on the eyes of the donor and not use a fan.
 - vi) An eye donation is relatively cheap.
2. Why do you think people should pledge their eyes?

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2.6 LET US SUM UP

- In this unit we have given you practice in
- reading and understanding a biographical passage,
 - using words both as nouns and verbs,
 - using defining and non-defining relative clauses,
 - writing a short composition based on your reaction to the passage read; and
 - listening to a conversation on pledging your eyes.

2.7 SUGGESTED READING

Ved Mehta: Face to Face, Oxford University Press, Delhi.

2.8 ANSWERS

Check Your Progress 1

1. Faces of members of the family, and colours of butterflies and birds.
2. He was blind. He lost his sight at the age of three and a half.
3.
 - i) The sound of rain.
 - ii) The feel of the sun against the skin.
The feel of the air before the coming night.
 - iii) The smell of grass

4. He lost his eyesight at a very tender age. He almost began life as a blind child, and his mind had stored nothing much which he could have missed later.
5. The new surroundings were quiet and peaceful, and no relatives or friends came to offer sympathies, which used to be embarrassing.
6. ii)
7. a) The shock of the illness;
b) ignorance of the potentialities of a blind child.
8. Being a qualified doctor, he knew that quacks and priests would further harm the child rather than cure his blindness. He was also raising his voice against his wife's superstitious handling of a hopeless situation.
9. By counting all the clicks of the switch. If the first click meant the light was on, the second would mean it was off, and so on.
10. The main difference was that the father was rational and practical, whereas the mother was superstitious and anxious.
- 11a. Yes, because i) the child would never get educated if he stayed at home, and ii) the Mumbai school was the best available, and the Principal showed a lot of interest in the case.
- 11b. She was greatly dismayed, but accepted her husband's decision.

Check Your Progress 2

Optimistic – pessimistic

Blind – sighted

Quiet – loud

Lift – drop

Ignorance – knowledge

Soothing – stinging

2. Shirk – avoid
Fragile – which breaks easily
Surpassed – exceeded
Atonement – making amends for a wrong-doing
Insurmountable – which cannot be overcome
Indulging – pampering
3. i) Surajkund is a popular picnic **spot** in Haryana.
ii) A bird in **hand** is worth two in the bush.
iii) The refugee's **despair** of ever seeing his family again filled us with pity.
iv) The discovery of a new planet has been **reported** in today's papers.
v) The **remedy** seems more painful than the disease.
vi) We cannot always observe the traditions **handed** down to us from the past.
vii) You can **spot** a friend even in a crowd.
viii) Why he **despaired** of success in his new profession was because he had a bad boss.
ix) The committee has been asked to hand in its **report** in four months.
x) Don't be unhappy; your faults of pronunciation can be easily **remedied**.

Check Your Progress 3

- i) who ii) which/that iii) who iv) that/which v) that
2. i) The woman who came to see me last week is my father's sister.
 - ii) The shop didn't have the book that I wanted.
 - iii) How can I forget a friend who was so good to me?
 - iv) Write a story that would interest everyone.
 - v) The car that was driven by the world champion will fetch a high price.
3. i) who came to see us this morning
 - ii) that you wish to talk about?
 - iii) that is not too expensive
 - iv) that arrived at the post office yesterday?
 - v) who can speak French like a native of France.

Check Your Progress 4

1. i)stations, which are part.....
 - ii) ...book, which was well reviewed by critics,
 - iii) Tourists, who are interested in cultural programmes, are fascinated by our folk dances.
 - iv)harvest, which looked.....time, has been rather poor.
 - v)scientists, who are very well.....skill, live in America.
2. i) My health, which has been rather poor, doesn't allow.....
 - ii)floods, which came too suddenly, damaged.....
 - iii) P.T. Usha, who appeared on T.V. last month, was one of.....
 - iv) Last night's meeting, which was attended by the two rival groups, broke up in disorder.
 - v) Trams, which do not run in Delhi now, are still used in Calcutta.

Check Your Progress 5

Do it yourself.

Check Your Progress 6

1. True and False
 - i) Eye pledging merely requires that you sign up with an eye bank to donate your eyes after death and inform your family members. TRUE
 - ii) When eyes are donated, the vision of two people suffering from corneal blindness can be restored. TRUE
 - iii) An eye-card is essential for all potential donors so that family members can see it at the time of death. FALSE
 - iv) The age of the donor is an important criteria where donation is concerned. FALSE
 - v) For an eye donation to take place successfully, it is important to keep a wet cloth on the eyes of the donor and not use a fan. TRUE
 - vi) An eye donation is relatively cheap. FALSE
2. It can ease the pain of losing someone, knowing that part of that person can continue to help another person lead a better life. It is comforting to many people to feel that their loved one's death has some meaning. There is no substitute for human tissue, and the gift of corneal donation from one person to another is priceless – changing that recipient's life forever. In fact with eye donation, you can change two lives forever. It gives solace to realize that the life of the loved one is continuing even after death.

UNIT 3 AGED PEOPLE

Structure

- 3.0 Objectives
- 3.1 Warm Up
- 3.2 Reading Comprehension
- 3.3 Vocabulary: Guessing Meanings of Unknown words and phrases
- 3.4 Study Skills – Making Notes
- 3.5 Listening Comprehension
- 3.6 Writing: Argumentative Writing
- 3.7 Grammar: Expressing Future Time
- 3.8 Reading a Poem: At 62
- 3.9 Let Us Sum Up
- 3.10 Answers

3.0 OBJECTIVES

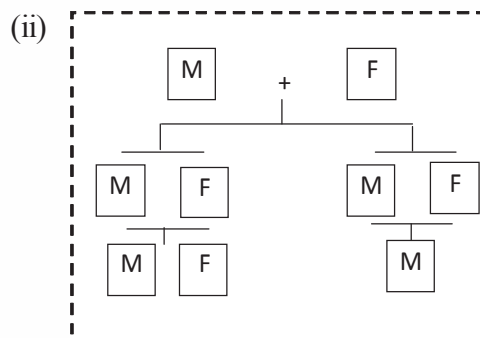
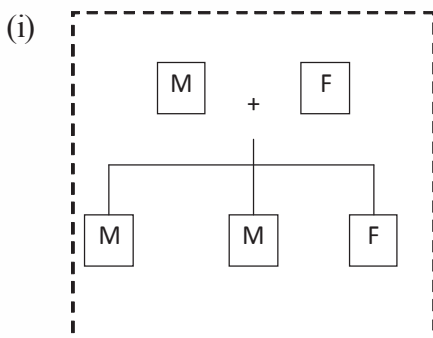
In this Unit our main objectives are to give learners proficiency in English through an integrated approach based on a reading text on the theme ‘The Ageing of the World Population’. The skills we have emphasized on are:

- Reading skills with particular reference to:
 - preparing to read through pre-reading activities
 - reading for a purpose
 - guessing meaning of unknown words and phrases
 - skimming and scanning
 - making inferences
 - understanding cohesion and coherence
- Speaking – discussion on a topic;
- Study skills – making notes;
- Listening comprehension; and
- Writing an argumentative essay and using other people’s views in one’s own writing.

3.1 WARM UP

Activity 1

1. Look at the following family trees and say which one most resembles your family:



- 2. What is a nuclear family? Which one of the above is a nuclear family? What is the other diagram called?

.....

.....

- 3. What are the advantages of living in a joint family? Why is this traditional family system disappearing in India, particularly in the cities?

.....

.....

.....

.....

.....

.....

3.2 READING COMPREHENSION

3.2.1 Preparing to Read

Pre-reading activities

One of the ways of improving one’s reading skill is to observe how experienced readers read and what strategies they employ while reading. Research has shown that good readers engage themselves in what are called ‘**pre-reading activities**’. One of the purposes of these activities is to ‘activate’ background knowledge about the topic one is going to read and then read the given text in the light of this background knowledge.

Predicting and Verifying Predictions

There are various tasks and activities to enable learners to develop the reading skills. One of them is to survey the text, its title, and so on and **predict** what the text is about and then read the given text to **verify** the predictions made.

The task given below is meant to give you practice in learning this important reading skill.

Activity 2

- 1. You are going to read a passage titled **Ageing: An Emerging Challenge**. What do you think the writer will say in this passage? Write down questions you expect the writer to answer in this passage.

One of the questions, for example, can be: What is ‘Ageing’?

Now list as many questions as you can think of relating to this topic – questions you think the writer will answer or you want him/her to answer or deal with in the passage.

.....

.....

.....

.....

.....

.....

- 2. Do you know answers to any of these questions? Discuss your answers with your partner at the study center or with someone at home.

.....

.....

.....

.....

3.2.2 How to Go About Reading

Before you begin reading the passage, let us see how experienced readers read. We have already said above that experienced readers read keeping the *activated background knowledge* in mind and *interpret* all words and phrases in the *context* of this background knowledge. Secondly, good readers read *silently*, *varying* their speed of reading according to the *purpose* of reading. While reading they do not rush to consult a dictionary when they come across unknown words or phrases – they try to *guess* their meaning from the context, their form or position in the sentence structure. Again, they do not read word by word; they read and *predict* and verify their prediction. They also read in ‘*sense groups*’ focusing on making *meaning* of what they are reading.

Reading for Gist

Activity 3

Read the passage given below. Is this passage about ageing of individuals or of society as a whole? (Say which skills/strategies would you use to answer this question and why)

You must read silently and fast, do not stop at words and phrases you do not know but keep reading, guessing their meaning from context or even ignoring these words. Do not read word by word for every detail but read only with the **given purpose in mind**, i.e. to locate an answer for the given question – if you do all this or even some of these, you are already learning to become an effective reader.

Ageing: An Emerging Challenge (Part I)

- ¹ “THE AGEING OF the world’s population is one of the most important demographic phenomena of our time,” says United Nations Secretary-General Javier Perez de Cuellar. He was speaking on 1st October at a UNFPA-organized symposium on population ageing held to mark the first International Day for the Elderly.
- ² The world’s elderly population — defined as persons 60 years and older – is growing rapidly, in developing countries as well as in the industrialized countries commonly characterized as “graying”. By the year 2025, seven in ten older persons will come from developing countries, the UN predicts. These countries are faced with a quandary: How to take care of their elders and invest in economic development with limited resources.
- ³ The needs of the elderly range from continued employment for those sometimes referred to as the “younger older,” to health care for the chronic ailments that come during “old-old age”.
- ⁴ “If all the world’s elderly were considered as a single nation, that nation would be the world’s third most populous, coming immediately after China and India,” says David Horlacher, chief of the Population and Development Section of the UN Population Division.
- ⁵ “However”, says Horlacher, the age structures of sub-Saharan African countries are getting younger. “Population ageing is unlikely to be a significant problem for them before 2020. Age structures in a majority of countries in Latin America and Asia became younger in the 1950s and 1960s, but the trend was reversed around 1970 when substantial fertility decline started.”
- ⁶ “The proportions of elderly are not changing markedly, but their sheer numbers are increasing rapidly” in the developing countries, says William Seltzer, chief of the UN Statistical Office. “At the same time, changes in social and cultural patterns, such as the flight of young people to towns and the spread of the nuclear family, mean that the traditional resources to care for the elderly are being undermined.”

⁷ Elderly persons make up some 12 per cent of the population of industrialized countries, 4.5 per cent in developing countries. By 2025, according to UN projections, the proportions will be 19 per cent and 8 per cent, respectively.

Reading to Scan for Details

Now read the passage once again, this time at an average speed, and answer the following questions:

Inferring meaning

Readers can easily comprehend what the writer says explicitly. But experienced readers can make out what is not stated explicitly but is only implied by the writer or maybe the writer pre-supposes that the reader will be able to infer the meaning from the context. The following is meant to teach this important skill.

Check Your Progress 1

Answer the following questions from your reading of the passage. You may have to use your own knowledge and experience to answer some of these.

1. When is one considered to be ‘aged’?
.....
.....
.....
2. What are the challenges that the younger older face and the ‘old-old age’ people face?
.....
.....
.....
3. Suggest some reasons why people live longer today than they did some years ago.
.....
.....
.....
4. What problem does this pose for developing countries?
.....
.....
.....
5. Why didn’t they face this problem in the past?
.....
.....
.....
6. What are the needs of ‘aged’ people? How were these needs met traditionally in the past?
.....
.....
.....
7. When is the “International Day for the Elderly” celebrated?
.....
.....
.....

Let us now read the rest of the passage:

Aging: An Emerging Challenge (Part II)

⁸ It has been found that although the world’s population is almost equally divided between women and men, there are only 79 elderly men to every 100 elderly women.

- ⁹ “In all regions bar South Asia, women live longer than men,” says Catherine Pierce, chief of UNFPA’s Special Unit on Women, Population, and Development. “In consequence, a higher proportion of elderly women are alone than are men.”
- ¹⁰ “In developing countries, women’s general health is much worse than men’s. Health and nutritional deficiencies throughout life mean that women enter old age more unhealthy than men,” says Pierce.
- ¹¹ She adds that “the culture of poverty follows women even in industrialized countries,” where, for example, widows are entitled to only a portion of their husband’s pensions.
- ¹² Tarek Shuman, Director of the International Programme of the Centre for Ageing says, “The key policy question in industrialized and developing countries alike,” is “Who is going to pay the bill?”
- ¹³ The younger generation is paying for the elderly, no matter how you look at it”, Shuman told *Population* during a recent visit to New York. Whereas the economic costs of ageing fall on the young, the social burden is borne by the elderly themselves, most commonly in the form of isolation and immobility.
- ¹⁴ Industrialized countries are discovering that the best place for the elderly is their own home, rather than some institution. This is the traditional model in many developing countries, where the family is central to the culture and traditions. Family care, is more cost-effective and more likely to enhance the lives of the elderly than institutionalization.
- ¹⁵ “Developing countries should think twice before investing in institutions,” says Shuman. “This is where the UN comes in. It should emphasize an important message: ‘Don’t lose the family’.”

(Adapted: From *Population*, Vol. 17, No. 11 (Nov. 1991))

Check Your progress 2

1. According to Pierce, the plight of elderly women is worse than men in all countries. What reason does she give for this statement?
.....
.....
2. In what sense does the economic burden fall on the young?
.....
.....
3. What examples does the writer give of ‘social burden’?
.....
.....

Understanding cohesion and coherence:

Reading for main ideas and supporting details

Written communication is ‘interactive’ like face-to-face communication though it is interactive only implicitly. The writer enters into a sort of dialogue with the absent reader and anticipates questions the reader will ask and keeps providing answers to these questions. For example, s/he may make an assertion (focal point) and then give evidence (support) to prove her/his point or s/he may make a statement and follow it with expansion, explanation, re-statement and so on to make his or her point.

Expert readers can identify **focal sentences** containing main ideas and supporting sentences and their functions: *exemplification*, *justification*, *expansion*, *restatement*, and so on. Example:

- Assertion** : World’s elderly population is growing rapidly.
- Justification** : Paragraphs 6 and 7.
- Statement** : These (developing countries) are faced with a quandary.
- Expansion** : How to take care of their elders and invest in economic development with limited resources.

Reading the text in this way helps readers to see **cohesion** between sentences, that is how each sentence is linked with the previous one. Sometimes the writer uses linking devices but quite often s/he may not. You must learn to read in this manner and see how the sentences are linked with each other.

Understanding Text Organization

Expert readers can make out not only cohesion between sentences in a paragraph but also how various paragraphs in the text are linked together to achieve coherence.

Coherence is the term used for the logical development of ideas in a text. These ideas can be developed in a variety of ways, e.g. classification or listing, comparison and contrast, problem to solution, cause and effect, advantages and disadvantages, specific to generalization or *vice versa* and so on. This enables us to see how the whole text is organized and how the ideas flow through the given text. If necessary, we can prepare a flow chart of the ideas in the given text.

Activity 4

Can you make out how the writer has organized his ideas in the given passage
Ageing: An Emerging Challenge

.....

.....

.....

.....

.....

.....

3.3 VOCABULARY: GUESSING MEANING OF UNKNOWN WORDS AND PHRASES

Check Your Progress 3

1. You are given below under column ‘A’ some words that occur in this passage and their meanings on the right under ‘B’. Choose the meaning of the word that is most appropriate in the context. (Be careful! You have more entries under ‘B’):

| A | B |
|----------------|--|
| i) demographic | a) an unusual thing or happening |
| ii) phenomena | b) getting old |
| iii) predict | c) lasting a long time |
| iii) chronic | d) to foretell |
| iv) ailments | e) diseases |
| v) populous | f) popular |
| vi) flight | g) aeroplane |
| vii) undermine | h) weaken gradually |
| | i) populated |
| | j) pertaining to the study of population |
| | k) the act of running away |

3.5 LISTENING COMPREHENSION

You are going to listen to a passage taken from the 'Background to Project OASIS of the Ministry of Social Justice and Empowerment, Government of India, 01 Feb., 1999. Read the questions first and then listen to the passage from the audio. Now answer the questions. If you are unable to answer them, listen again.

Check Your Progress 4

1. The following five points describe the five paragraphs of the passage. As you listen, put the points in the same order as they occur in the passage, by numbering them 1 – 5.
 - a) Elderly persons in India today must save enough for at least 15 years after they attain the age of 60.
 - b) The number of the aged is rising world-wide and is expected to continue to rise rapidly, including in India.
 - c) There is a need to create new systems and improve the prevailing mandatory contributory systems.
 - d) Traditional old age economic security structures are unable to cope with this ever increasing number of elderly people. Hence there is need to supplement informal systems through formal contributory system.
 - e) Providing economic security to this rapidly increasing number of the elderly people is a big drain on government resources.
2. Which of the following statements do you feel best describes the overall aim of the speaker? The main aim of the speaker is to:
 - a) describe the rapid increase in the number of elderly persons.
 - b) state that the average life span of the people in India is about 75.
 - c) describe the traditional government and social economic security for this group.
 - d) emphasize the need to devise multitude of saving systems including improving the existing system.

3.6 WRITING: ARGUMENTATIVE WRITING

Quoting other people's views

In our own writing, particularly academic writing, we often have to quote other people's views either to support our own argument or to oppose what they say and so on. There are four different ways of using other people's views. We can do so by (1) direct quotation, (2) using reported speech, (3) paraphrasing, and (4) summarizing and also sometime by a judicious combination of two of these ways.

Check Your Progress 5

Read the reading passages carefully and notice how other people's views have been used and why.

Argumentative Writing

We often have to write different types of texts, e.g. descriptive, narrative, expository and so on and writing particularly in a foreign language, needs guidance and practice. The following exercise is designed to give you some practice in writing.

Check Your Progress 6

Some people say that an institution (e.g. Old People Home) is the best place for keeping our aged people. Others argue that the best place for the elderly is their own home rather than some institution.

3.7 GRAMMAR: EXPRESSING FUTURE TIME

We express future time in many ways. Given below are some ways in which we express future time and their functions.

Going to

| | Going to | Function |
|----|--|--|
| 1. | You are going to read a passage titled Ageing: An Emerging Challenge. | Expresses personal intention or action taking place in the |
| 2. | A: Have you decided what you would like to do after you complete your graduation? B: Well, I think I'm going to study Business Management. | |
| 3. | Look at the dark clouds; I think it's going to rain. | Expresses probability |

Present Continuous

| | | |
|----|---|---|
| 1. | I have a fever. I'm meeting the doctor in the evening. | Expresses future plans and arrangement. |
| 2. | What are you doing this weekend? | |

The Simple Present

| | | |
|----|--|--|
| 1. | The flight leaves for Mumbai at 6 pm. | Expresses future actions which are determined in advance by a calendar, a time table or programme. |
| 2. | The cricket match starts at 9 am. | |

Will/Shall + Verb or Will be / Shall be + verb

| | | |
|----|---|--------------------------------------|
| 1. | By the year 2025, seven in ten older persons will come from developing countries, the UN predicts. | Expresses future fact or prediction. |
| 2. | With your CV or resume you will be able to promote yourself. | |
| 3. | Shall I carry your books? Will you open the window, please? | Expresses an offer or request. |

Will be / Shall be + verb + ing

| | | |
|----|--|---|
| 1. | I shall be sitting in the luxury bus tomorrow at this time. | Indicates an action which will be in progress at some time in the future and future actions that are planned. |
| 2. | He will be leaving for Mumbai at six O'clock tomorrow. | |

Will / Shall +have + Past participle

| | | |
|----|--|--|
| 1. | They will have completed the project by tomorrow evening. | Expresses an action that will have been completed by a certain time in the future. |
| 2. | We shall have reached Mumbai by this time tomorrow. | |

Check Your Progress 7

1. Fill in the blanks with the correct form of the future, using **will** or **going to**.
 - i) Student 1: Do you need any help?
Student 2: Oh yes, please. _____ (you /carry) these books for me?
 - ii) Secretary: I'm afraid the computer is not working, I can't send the mail.
Boss: Don't worry, it's not urgent. I _____ (send) the letter by courier.
 - iii) Businessman: I've chosen a name for the new soap we are launching.
Colleague: Really? What _____ (you/call) it?
 - iv) Boss: Why are you not coming to office on Friday?
Assistant: I _____ (attend) my sister's wedding.
 - v) Adult: I'm afraid there are no cold drinks. Do you like some tea instead?
Child: No, I _____ (not have) anything, thanks.
 - vi) Trainer: Have you decided what to do about improving your English?
Child: Yes, I'm _____ (listen) to the news every day.
 - vii) Friend 1: I won't be able to go shopping with you in the evening, something important has come up.
Friend 2: Don't worry, I _____ (go) with Sunaina.
 - viii) Boss: Can you make sure Mrs. Gupta gets the message?
Assistant: Yes, I _____ (tell) her as soon as she arrives.
2. Use one of the future forms along with the verbs in brackets to complete the following sentences.
 - i) Rohan thinks about nothing but work, morning, noon or night. If he's not careful he _____ (have) a nervous breakdown.
 - ii) _____ (you/take) the flight to Jaipur?
 - iii) If you have any more questions, send me an email and I _____ (do) my best to answer them.
 - iv) Stop harassing me or I _____ (complain) to police.
 - v) Isn't the Chairperson coming for our event?
 - vi) Yes, he's also _____ (give) a speech on the company policies.
 - vii) The Sports Channel _____ (show) the highlights of the match this evening.
 - viii) We're _____ (hire) a luxury bus for the Agra.
 - ix) _____ (you/open) the door for me?

3.8 READING A POEM: AT 62

Read the following poem. We hope you will enjoy it.

At 62

The advantages
of being old
I now explore ...
the disadvantages
I know already.

There is a wisdom
sacred in my books,
seeping at last
into my words
and silences

Death,
in the distance
and near,
is my only halo.

Memories,
add up to meanings.
every cup of tea
becomes the ceremony
it should have always been.

I celebrate the familiar,
the routine,
and the unexpected.
Within my peace
and poetry,
the world of suffering
is not explained away,
though some of it
has its own validity.

I want my hands
to learn how to heal
myself and others,
before I hear
my last song.

3.9 LET US SUM UP

In this unit we have introduced you to an important phenomena of our times – the ageing of the world population with particular reference to the challenge it poses to the developing countries, the needs of the aged people including the problems faced by aged women in all countries – industrialized as well as developing countries – and how the needs and problems of the aged can be taken care of by us.

We have also tried to improve your proficiency in English through an integrated approach based on a reading text on the theme mentioned above, that is ‘The Ageing of the World Population’. The skills in which practice has been given are speaking, reading, listening, writing an argumentative essay and note making.

3.10 ANSWERS

Activity 1

1. Do it yourself.
2. A nuclear family is one in which husband, wife, and only their children are staying under one roof. The other one is a joint family, a family where three or more than three generations are staying under one roof.
3. *Hints:* Advantages: security, safety, cooperation, members help each other in need, pooling of resources, economy, both children and aged are taken care of bound by ties of mutual love and affection and so on.

Joint family system is still prevalent particularly in rural areas. Some of the reasons for its disappearance in towns and cities are: migration of youth from villages to cities for various reasons, working couples, lack of adequate accommodation, small incomes, selfishness, desire for independence, and crumbling of the culture that supports the joint family system.

Activity 2

- 1
 - i) What is ‘Ageing’?
 - ii) Who is ageing?
 - iii) When does one begin ageing?
 - iv) Do all people begin ageing at the same age?
 - v) How can we know he/she is ageing?
 - vi) Is ageing a challenge?
 - vii) Why is he/she ageing?
 - viii) What is the meaning of ‘emerging challenge’?
 - ix) What are the problems caused by ageing?
 - x) For whom is it a challenge?
 - xi) How can we deal with this challenge?
 - xii) How may one cope with ageing?
2. Do it yourself.

Activity 3

The passage is about ageing not of any particular person but of world’s population as a whole.

Check Your Progress 1

1. Persons who are 60 years and above are considered to be ‘aged’ people.
2. Employment problems for “younger older” and health-care for chronic ailments of “old-old aged” people.
3. *Hints:* Better health care, better food and nutrition and general improvement in the quality of life. You can add more to this list.
4. Developing countries have limited resources. Should they invest these resources in taking care of their ‘aged’ persons or in economic development of their country?
5. The population of the elderly people was not so vast. Moreover, they were taken care of by their children in the joint family system.
6. Their needs are (i) economic (ii) health care, and (iii) social and psychological.
7. 1st of October

Check Your Progress 2

1. Their economic and health status is worse than men’s. In developing countries they suffer from health and nutritional deficiencies throughout life and so enter old age more unhealthy than men. Even in developed countries where they are entitled to old-age benefits, they get only a portion of their husband’s pensions and this is not adequate to meet their economic and health care needs.
2. It is the younger generation who meets the economic needs of the elderly people.
3. Loneliness and immobility

Activity 4

The given passage is organized in the form of ‘**Problem to Solution**’. This (Problem to Solution) type of organization of ideas often follows the following pattern:

- statement of the situation; the problem arising from it;
- its nature, causes and effects.
- possible traditional or suggested solutions
- a critical examination of the solutions and their drawbacks
- final solution, its advantages, and how it can be implemented.

Check Your Progress 3

| A | B |
|-----------------|---------------------------------------|
| i) demographic | pertaining to the study of population |
| ii) phenomena | an unusual thing or happening |
| iii) predict | to foretell |
| iv) chronic | lasting a long time |
| v) ailments | diseases |
| vi) populous | populated |
| vii) flight | the act of running away |
| viii) undermine | weaken gradually |

Activity 5

Do it yourself.

Listening text

1. Populations, worldwide, are ageing. In India, while the total population is expected to rise by 49%, that is from 846.2 million in 1991 to 1263.5 million in 2016, the number of aged, that is persons aged 60 and above is expected to increase by 107%, from 54.7 million to 113.0 million, in the corresponding 25-year period. In other words, the share of the aged in the total population will rise to 8.9% in 2016 from 6.4% in 1991. Population estimates further suggest that the number of the aged will rise even more rapidly to 179 million by 2026 or to 13.3% of the total Indian population of 1331 million.
2. Today, males and females in India at age 60 are expected to live beyond 75 years of age. Thus, on an average, an Indian worker must have adequate resources to support himself for approximately 15 years and his wife for an even longer duration after his retirement.
3. Traditionally, governments and societies provide economic security during old age through pension provisions. Sound pension systems form a social safety net for reducing poverty during old age. However, a rise in the number of older persons often causes a corresponding increase in government expenditure on non-contributory pensions and health services - since health and pension spending rise together. Higher government spending on old age security has often been at the cost of expenditure on other important public goods and services and has increasingly been a serious drain on government finances.
4. While we witness an increase in the number of aged, the traditional, informal methods for income security, such as the joint family system in India, is increasingly unable to cope with the enhanced life span and medical costs during old age. There is growing stress on the family system and there is an immediate need for introduction of formal, contributory pension arrangements that can supplement informal systems. This problem is particularly important in India, which will enter its demographic transition into increasing number of aged persons at lower income levels than those seen in other countries that have since long introduced systems to cope with the problems of an ageing population.
5. The research studies commissioned by Project OASIS suggest that a pension provision for India, considering the huge diversities in income, savings capacity, literacy and the variety of employment categories will necessitate the formation of a multitude of pillars including the existing, mandatory, defined contribution provision of the Provident Funds, the voluntarily funded PPF, as well as a new contributory pillar (primarily for those not presently covered by any other formal pension provision). However, most individuals are myopic during their earning lifetimes with regard to saving for their old age and may thus be reluctant to save adequately for their old age income security in a purely voluntary environment. We must educate people that old age is inescapable and that saving for old age could be a painless process if started early in life. It is thus desirable for the prevalent mandatory, contributory pillar - that is provident funds, which have been performing a singularly significant and sustained role in enabling employees to save for their old age - to increase its coverage, improve returns and reduce its potential dependence on any non-funded government subsidies.

Check Your Progress 4

1. 1. para 2 4. para 4
2. para 1 5. para 3
3. para 5
2. d)

Check Your Progress 5

Do it yourself

Check Your Progress 6

Do it yourself.

Check Your Progress 7

1. Missing words are given in **bold**:
 - i) Student 1: Do you need any help?
Student 2: Oh yes, please. **Will you carry** these books for me?
 - ii) Secretary: I'm afraid the computer is not working, I can't send the mail.
Boss: Don't worry, it's not urgent. I **will** send the letter by courier.
 - iii) Businessman: I've chosen a name for the new soap we are launching.
Colleague: Really? What **are you going to call** it?
 - iv) Boss: Why are you not coming to office on Friday?
Assistant: I **am going to attend** my sister's wedding.
 - v) Adult: I'm afraid there are no cold drinks. Do you like some tea instead?
Child: No, I **will not have** anything, thanks.
 - vi) Trainer: Have you decided what to do about improving your English?
Child: Yes, I'm **going to listen** to the news every day.
 - vii) Friend 1: I won't be able to go shopping with you in the evening, something important has come up.
Friend 2: Don't worry, I **will go** with Sunaina.
 - viii) Boss: Can you make sure Mrs. Gupta gets the message?
Assistant: Yes, I **will tell** her as soon as she arrives.
2. Missing words are given in **bold**:
 - i) Rohan thinks about nothing but work, morning, noon or night. If he's not careful he **will have** a nervous breakdown.
 - ii) **Will you take** the flight to Jaipur?
 - iii) If you have any more questions, send me an email and I **will do** my best to answer them.
 - iv) Stop harassing me or I **will complain** to police.
 - v) Isn't the Chairperson coming for our event?
 - vi) Yes, he's also **giving** a speech on the company policies.
 - vii) The Sports Channel **will be showing** the highlights of the match this evening.
 - viii) We're **hiring** a luxury bus for the Agra.
 - ix) **Will you open** the door for me?

UNIT 4 DRUGS OF ABUSE

Structure

- 4.0 Objectives
- 4.1 Pre-reading
- 4.2 Reading Comprehension: Drugs of Abuse
- 4.3 Grammar: Linkers and Gerunds
- 4.4 Writing: Note-Making
- 4.5 Listening Comprehension: Discussion between a Doctor and a Person Suffering from Arthritis
- 4.6 Speaking: Dialogue between a Counsellor and a Patient
- 4.7 Let Us Sum Up
- 4.8 Further Reading
- 4.9 Answers

4.0 OBJECTIVES

To develop in the learner the ability to:

- read a report and understand its main points;
- comprehend and interpret data or information given in a graphic form;
- comprehend new lexical items using cues from within the text;
- make inferences from the text and the charts;
- evaluate a situation and provide personal opinion;
- look for patterns and generalize;
- practice linkers and gerunds; and
- develop posters for public awareness.

4.1 PRE-READING

Activity 1

We take many things in our day-to-day life in order to remain healthy. Match the medicine or drug with the effect it has on us.

- | | |
|------------------|--|
| 1. Tonics | a) Helps in controlling severe pain as in cancer |
| 2. Cough Syrup | b) Help in making up nutritional deficiencies from food |
| 3. Tranquilizers | c) Help one to fall asleep when one is not able to do so in a natural manner |
| 4. Anti-biotics | d) Helps during operations by making the body numb |
| 5. Morphine | e) Help in destroying or controlling the growth of bacteria and controlling thereby infections |
| 6. Anaesthesia | f) Helps in controlling cough |

4.2 READING COMPREHENSION: DRUGS OF ABUSE

Many of these are drugs, which have been extracted from plants or made from chemicals and used for medicinal purposes. But, sometimes they are abused when people start taking them when they are not necessary or take them regularly in high doses to obtain a feeling of pleasure. Read on...

Since time immemorial humans have been trying to escape the stress and tensions of both the mind and the body. In addition, they have experimented with plants and their products in their search for pleasure of a different kind. Amongst the intoxicating substances used were wines and alcohol obtained by fermenting grapes, potatoes and rice. Some were substances obtained from the poppy plant and some from cannabis. As a result they felt intoxicated, happy or drowsy enough to forget the world and its worries. Generally, people took these intoxicants only on ceremonies or occasions. But a few amongst them became habitual users and got addicted to the substances.

In today's world many new chemical compounds have made their appearance and there is a host of intoxicants at the service of the pleasure seeker. Intoxicants produce a feeling of happiness and comfort while hallucinogens (*bhang* and *ganja*) create hallucinations, enabling the user to see colours to be brighter and more vivid, heightened perception such as greater enjoyment of music or get heightened sensations. Some of the opiates, on the other hand, make one feel drowsy and comfortably numb.

Just as the range of substances have grown, *so too* has the range of consumers of these drugs or substances. The users vary between the young and the old, educated and the illiterate, the urban and the rural and the male and the female. All, *of course*, have different reasons for having taking recourse to drugs and alcohol at the initial stages, before addiction set in.

For some, it is a way of relaxing after a day's hard labour. For others it is a way of forgetting the stress of the job or domestic life; for some it is a way of drawing attention to oneself and being accepted by one's peers, and for some it is sheer adventurism and making a bold statement in a conservative society.

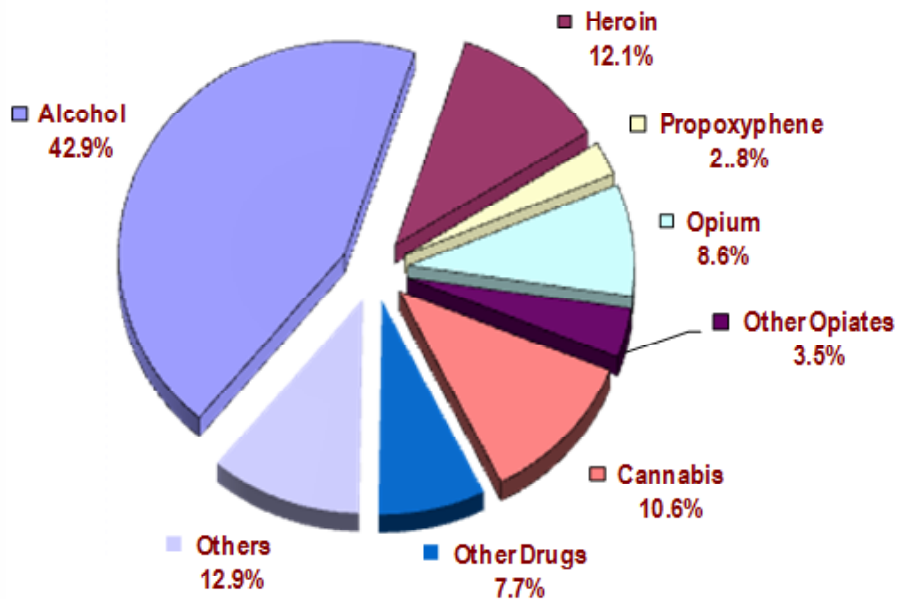
Given below are some of the drugs that are commonly abused. These are based on a survey conducted to study the kinds of drugs abused and the extent of abuse.

| Substance | Common Name |
|----------------------|---|
| <i>Alcohol</i> | Sharab, Daru |
| <i>Cannabis</i> | Ganja, Charas, Marijuana, Hashish |
| <i>Opiates</i> | Opium Afeem, Heroin, Smack, Brown sugar |
| <i>Cocaine</i> | Crack |
| <i>Hallucinogen</i> | LSD |
| <i>Amphetamines</i> | Speed |
| <i>Tranquilizers</i> | Sleeping pills |
| <i>Inhalants</i> | Glue, Paint thinner, Aerosol |

Amongst these, alcohol and *bhang* are drunk while cannabis is smoked. The fumes of cocaine are inhaled after burning it. Cocaine is also injected into the blood stream for quick effects. LSD, speed and sleeping pills are swallowed while glue, paint, thinner and aerosol, are inhaled.

According to a recent study conducted in various hospitals and treatment centres the following trend of drug abuse was seen.

Use of Different Drugs as Reported in Treatment Centres



Effects of the drugs

The effects of these drugs vary on different users. They start appearing sometimes within minutes of intake but are the quickest to make their appearance in the case of injecting drug. The most common effect is to feel euphoria, meaning a feeling of pleasure and happiness, which is also termed as ‘high’. During these spells the person feels happy, confident and ‘on top of the world’.

Subsequently, the body gets used to the drug and then the person feels no more excitement with the amount he/she took earlier. This leads to a steady increase in the dosage with the passing of time. Soon a situation arrives when the person becomes totally dependent on the drug and is unable to do anything without its support. On its part, the drug deprives the person of good health, sound thinking, skills of work as well as a normal respectable life. As a result such persons become a burden on themselves, their families and the society.

Drugs and the youth

Amongst the young, adolescents fall a victim to drugs and once made a captive to their ill effects, do not know whom to turn to for help. We need to be aware and be on the lookout for symptoms, to gauge if a youngster has fallen a prey to drugs.

During interviews with doctors and treatment personnel at treatment centres certain distinct signs of drug use were identified. They are provided in the table below.

Identification of warning signs suggesting drug use: Adolescents

- Unexplained poor school performance
- Sudden rebellion
- Behaviour changes
- Drowsiness
- Mood swings
- Increase demand for pocket money
- Presence of drug use paraphernalia e.g. empty foils and vials etc.

If one notices these signs one must take adequate action, like trying to find out if the youngster has any problem in life, taking him/her to the doctor or to the drug treatment centre. It is also important for the family to spend quality time with each other to prevent drug abuse.

Preventive Measures

The youth can be counselled about the ill effects of taking drugs so that they consciously stay away from drugs.

Here are a few things a person can do in order to prevent herself/himself from falling into the clutches of drugs. These are:

- Staying away from people who take drugs
- Staying away from places which are associated with drug use/abuse
- Working harder
- Not carrying much money
- Eating a healthy and hearty meal
- Handling the emotions of anger or frustration directly and not hiding behind drugs
- Talking to a close family member or a friend
- Telling one self the consequences of drug use and weighing them against the benefits of not taking drugs
- Seeking the company of those who do not take any drugs
- Going for walks or developing hobbies that give satisfaction
- Joining a course

This will increase the feeling of self-worth and confidence. Once this happens the attraction of the drugs will automatically reduce and one can lead a happy and healthy life. However, if one feels a sense of addiction then one must take IMMEDIATE HELP of a family member, friend and then subsequently of a trained doctor in this area.

(Adapted from information obtained from National Drug Dependence Treatment Centre, All India Institute of Medical Sciences by Shefali Ray)

Check Your Progress 1

1. Read the passage given above and complete the following sentences. Select the most appropriate phrase from those given.
 - i) Drugs can be classified as substances
 - a) that always cause harm if taken.
 - b) that have medicinal value but harmful if abused.
 - c) that are harmless in any form of intake.
 - d) that are used in laboratories only.
 - ii) Abuse of drugs means
 - a) taking them once in a while without the doctor's prescription.
 - b) pricing them very high in the market.
 - c) excessively taking them for purposes other than medical.
 - d) criticising and decrying the life-saving drugs.
 - iii) Initially the drug causes
 - a) anxiety and heightened awareness of dangers and problems.
 - b) a feeling of comfort, pleasure and increased enjoyment of music and colour.
 - c) excruciating pain and a feeling of nausea.
 - d) no effect at all.

- iv) Crack is the street name for
 - a) opium.
 - b) alcohol.
 - c) cocaine.
 - d) tranquilizers.
 - v) The major drugs of abuse are
 - a) alcohol followed by opium and proxephene.
 - b) alcohol, cannabis and opium.
 - c) alcohol followed by heroin and opium.
 - d) alcohol followed by heroin and cannabis.
 - vi) The population at greater risk are
 - a) teenage girls and boys.
 - b) adult men of any age.
 - c) adult women of any age.
 - d) all of the above.
 - vii) We can guess if a youngster has fallen a prey to drugs if we notice
 - a) an increased desire to achieve and excel in academic areas.
 - b) mood swings and change in behaviour.
 - c) mood swings, behavioural changes and drop in academic performance.
 - d) sudden friendliness and feeling of happiness all the time.
 - viii) In order to prevent a youngster from falling a prey to drugs the family should
 - a) get the boy or girl's blood tested for traces of drugs.
 - b) spend more time with the boy or girl in the family.
 - c) threaten the boy or girl with dire consequences.
 - d) just ignore the changes in behaviour if any.
 - ix) An increased feeling of self-worth and pursuing a meaningful occupation will never allow a young boy or girl
 - a) to seek pleasure and happiness in drugs.
 - b) to seek a friend's help in difficult times.
 - c) to be considerate towards others.
 - d) to seek medical help if addicted.
2. Read the statements given below and say whether they are true or false. Write T or F against them.
- i) In olden times it was a custom to take intoxicants only on ceremonies and social occasions.
 - ii) *Bhang* and *ganja* are intoxicants.
 - iii) Opiates make a person drowsy and comfortably numb.
 - iv) All of us have the same reason for taking recourse to drugs.
 - v) Youngsters often begin taking drugs to seek adventure.
 - vi) Heroin is the drug, which is abused to the maximum.
 - vii) A person gets addicted to a drug at the first instance itself.
 - viii) Drugs if abused, deprives a person of a happy and healthy life.

- ix) Presence of pieces of foil or empty vials near a young person can be a warning sign.
 - x) If a person knows how to handle his/her emotions, he/she can resist the temptation of drugs.
3. What should one do if one notices the warning signs of addiction in the case of a person?

.....

.....

.....

.....

.....

.....

.....

.....

4. Suggest some measures that one can take to avoid falling into the trap of drug taking and addiction.

.....

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.....

.....

.....

.....

Vocabulary

Check Your Progress 2

1. Find from the passage the following words.
- i) A word in paragraph 1 which mean the same as making the sugar in something change to alcohol by using yeast or bacteria.
 - ii) A word in paragraph 1 that means the same as substances such as alcohol that create false feelings of pleasure and causes a lack of control.
 - iii) A word in paragraph 2 which is opposite in meaning to the words dull and lacking sharpness.
 - iv) A word in paragraph 2 which can be used for substances containing opium.
 - v) A phrase in paragraph 3 that means the same as the fact of having to use something that can provide help in a difficult situation.
 - vi) A word one would use for a situation in which a person is willing to take risks in order to gain something for himself or herself. (Paragraph 4)
 - vii) A word in paragraph 4 opposite in meaning to radical.
 - viii) A word in paragraph 8 that means the same as make a judgement about something, especially people’s feelings or attitudes.

2. Normally there are certain words that are used in certain context and go with certain words. Match the words in column A with those in column B. Select the appropriate words from column B. One is done for you.

| A | B |
|--------------------|--|
| i) fumes Answer | spices/petrol/chemical/perfume/exhaust/flowers petrol, chemical |
| ii) euphoria | books/physical condition/mental state/natural conditions |
| iii) dosage | food/learning material/medicines/advice |
| iv) symptoms | feeling/physical condition/disease/weather |
| v) fall prey | disease/good habits/food/bad habits/negative feelings |
| v) abuse | books/power/body/room/drugs |

4.3 GRAMMAR: LINKERS AND GERUNDS

Read the following sentences from the passage and note the use of the italicised words.

Linkers

Subsequently, the body gets used to the drug and then the person feels no more excitement with the amount he/she took earlier. This leads to a steady increase in the dosage with the passing of time. *Soon* a situation arrives when the person becomes totally dependent on the drug and is unable to do anything without its support. *On its part*, the drug deprives the person of good health, sound thinking, skills of work as well as a normal life. *As a result* such persons become a burden on themselves, their families and the society.

You will notice that these words serve a specific purpose. They help to provide a smooth flow of ideas connecting one with the other logically so that the passage is readable and comprehensible. These words also help you to predict what is to come in the sentence in which they occur. This also helps us to make predictions as we read.

Let us see what each one is doing here.

Subsequently, the body gets used to the drug ... - showing the result of something said earlier.

Soon a situation arrives ... - indicating the time lapse between the action and the consequences

On its part the drug deprives the person of good health...- indicates that we are going to read about the role played by drugs

As a result such persons become a burden on themselves...- we can anticipate the result of the previous action.

These words are called 'linkers' as they do the work of signposting and lead the reader along. They may occur in the middle of a sentence as well.

Check Your Progress 3

Given below are some *linkers*. Complete the sentences using appropriate linkers.

just as *as soon as* *alternately* *according to* *in contrast*
in addition *to sum up* *however*

- i)the proceedings of the meeting, I would like to say that the proposal to revamp the airports has been tabled and has received positive response from the house.
- ii) You can take a Shatabdi to Amritsar and then a taxi to Dalhousie.you can take a bus from New Delhi to Pathankot and take a taxi from Pathankot.
- iii)the spaceship was to take off there was a telephone call from the ground control. This delayed the take-off by a few minutes.
- iv) Most of the hotels do provide you with a complementary breakfast. This,,is not the case with Hotel Shantilla. You would have to pay for your breakfast.
- v) Fruits help to provide the body with essential minerals and vitamins., they supply the fibre that our body needs.
- vi)I opened the gate of my house, I realised that something was wrong.
- vii)to the list of holidays given out by the government, August 27 is a restricted holiday.
- viii) Tumpa is full of beans and brimming with confidence, over confidence at times., her sister Putul is quiet and reserved.

Gerunds

Read the following lines from the passage.

- *Staying* away from people who take drugs.
- *Staying* away from places which are associated with drug use/abuse
- *Working* harder
- *Not carrying* much money on person.

You will notice that the words ‘staying’, ‘working’ and ‘carrying’ are verbs doing the work of a noun. These are also in the position of the subject of the phrase, which would lead into a sentence like this ‘Staying away from people who take drugs will help you to prevent falling a prey to drugs.’ (Something that is understood in the passage).

These verb-nouns are called **Gerunds**. Gerunds function very much like nouns and can be the subject, object or the complement of a subject. They are formed by adding the letters ‘ing’ to the root verb or the base verb.

Check Your Progress 4

Complete the sentences below with appropriate gerunds.

- 1)(join) the Management Course was half as difficult as.....(stay on) in it.
- 2) I suggest in this flood situation,(route)the buses from Girijanagar to MG Road via Talukabad might help. This will help in(decongest) the traffic jam on Viratnagar Crossing.
- 3)(do) a distance learning course from an Open University is much easier as there is greater flexibility.
- 4)(cross) a rope bridge over a river can be quite tricky. There is always the danger of(miss) a foothold and(slip) through the gaps.
- 5) The whole day was spent in(pack) and I completely forgot about(confirm) the time of the departure of the train.

- 6) Silk is obtained through the cruel method of(boil) the live cocoon in water to kill it and then.....(unwind) the thread from the cocoon.
- 7)(plant) trees and(protect) the existing ones are the only ways by which we can hope to restore the forest cover.
- 8)(trample) over the tiny huts and bamboo groves, the angry elephant rushed into the village.

4.4 WRITING: NOTE-MAKING

Read the passage *Drugs of Abuse* once again and make notes. Remember you would need to identify the main points first. Then locate the sub-points under each.

You can number your main points as I, II & III while your sub-points would have i, ii and iii.

You would need to exclude text, which contains repetition or too many illustrations. Your notes might also have abbreviations for brevity. You may also substitute numbers from words to figures, use symbols wherever applicable.

It would be a good idea to take a pencil and number the paragraphs while outlining the main or the key point it carries.

Some Dos and Don'ts of Note-making

- Notes are normally not in full sentences
- The topic of each passage is the main point or heading and the ideas that are in it are the sub-points or sub-headings
- Indent the main points and sub-points properly. The usual pattern for indenting is:
 - I Headings: Roman numerals (I, II, III, etc.)**
 - II Subheadings: Capital Letters (A, B, C, D)**
 - III Further divisions: Arabic numerals (1, 2, 3, etc)**
 - IV Use short forms and abbreviations whenever possible**
- Notes should cover all the points of the passage
- From the notes you can prepare a summary which must cover all the points of the passage.

Your notes might look like this.

| Drug Use /Abuse | |
|------------------------|---|
| I | History of Drug Use /Abuse <ul style="list-style-type: none"> i) Reasons and occasions ii) Kinds of drugs taken iii) Made out of.... |
| II | Drugs in modern times <ul style="list-style-type: none"> i) Intoxicants <ul style="list-style-type: none"> • Alcohol • Effect-drowsiness, pleasure and happiness ii) Hallucinogens and opiates <ul style="list-style-type: none"> • Bhang and ganja • Hallucinations- see brighter colours, heightened perception, greater enjoyment of music |
| (Now continue...) | |

4.5 LISTENING COMPREHENSION: DISCUSSION BETWEEN A DOCTOR AND A PERSON SUFFERING FROM ARTHRITIS

Listen to a discussion on Arthritis. The person has many queries, which the doctor is answering

Check Your Progress 5

Listen to the discussion carefully and complete the information in the table. You may have to listen to audio several times.

| Details of the disease | Osteoarthritis Common/not so common | Rheumatoid Arthritis Common/not so common |
|--------------------------------|---|---|
| 1. Occurrence: | | |
| 2. Age of people affected: | | |
| 3. Parts of the body affected: | | |
| 4. Nature of illness: | | |
| 5. Other risks involved: | | |
| 6. Causes of the disease: | | |

4.6 SPEAKING: DIALOGUE BETWEEN A COUNSELLOR AND A PATIENT

Work in pairs. Imagine a situation in which a person is in the process of giving up drugs. But he/she is facing certain difficult situations. These situations are called ‘high-risk-situations’ because the person may revert to the drug taking habit any time due to stress or boredom. Play the roles of the patient and the counsellor at the treatment centre and have a conversation in which the counsellor advises the patient what to do in these situations.

Check Your Progress 6

Given below in the box 1 are the situations. Box 2 carries the suggestions to remedy the situation. Use the ideas given there and carry on with your conversation.

| | |
|---|---|
| <p>BOX 1 <i>High-risk-situations</i></p> <ul style="list-style-type: none"> • Feeling sad or anxious • Feeling boredom • Feeling angry or frustrated • Difficulty in sleeping • Pressurized by people who take drugs • Craving (strong desire to take the drug) • Bodily discomfort • Having plenty of money on oneself • Passing through the places associated with drug use • Suspected of having taken the drug by family | <p>BOX 2 <i>Alternate Activities</i></p> <ul style="list-style-type: none"> • Spend more time with family • Build their trust • Work harder • Spend more time at work • Go for an outing or a walk • Help family with household chores • Watch television • Spend time in travel • Avoid areas known for drug use • Read • Join a course • Take up knitting, gardening or exercising |
|---|---|

Text adapted from 'Coping Strategies & Alternate Activities', Information Booklet, Dr. Hem Raj Pal, Drug Dependence Treatment Centre, All India Institute of Medical Sciences, Ghaziabad

You may use expressions like:

I sometimes feel.....

I get very anxious.....

I don't know what to do when....

I am afraid.....

Could you please advise me.....

I suggest.....

Why don't you.....?

I can understand your situation but if you tried to.....it might help.

You can do another thing.....

Have you tried doing.....

If I were in your place, I would.....

4.7 LET US SUM UP

In this Unit, we discussed another important health related issue – the abuse of drugs. Drug abuse must be prevented. The reading passage and the questions that follow give you information of various drugs, their abuse and prevention of abuse.

All passages are organized using linking devices. We give you practice in the use of linking devices and revise gerunds. In the writing section, we revise note-making and give you tips on the Do's and Dont's of note-making. The listening comprehension part is a dialogue between a doctor and a lay person seeking information on arthritis. The speaking section gives you ideas and language for a dialogue between a counsellor and a patient. We hope you have read the Unit carefully and attempted all the exercises.

4.8 FURTHER READING

1. Science Digest
2. Websites on the Internet on various health issues
3. Literature for public awareness distributed by different treatment centres

4.9 ANSWERS

Activity 1

1. b)
2. f)
3. c)
4. e)
5. a)
6. d)

Check Your Progress 1

1. i) Drugs can be classified as substances (b) that have medicinal value but harmful if abused.
- ii) Abuse of drugs means (c) excessively taking them for purposes other than medical.
- iii) Initially the drug causes (b) a feeling of comfort, pleasure and increased enjoyment of music and colour.

- iv) Crack is the street name for (c) cocaine.
 - v) The major drugs of abuse are (d) alcohol followed by heroin and cannabis.
 - vi) The population at greatest risk are (a) teenage girls and boys.
 - vii) We can guess if a youngster has fallen a prey to drugs if we notice (c) mood swings, behavioural changes and drop in academic performance.
 - viii) In order to prevent a youngster from falling a prey to drugs the family should (b) spend more time with the boy or girl in the family.
 - ix) An increased feeling of self-worth and pursuing a meaningful occupation will never allow a young boy or girl (a) to seek pleasure and happiness in drugs.
2. True and false.
- i) In olden times it was a custom to take intoxicants only on ceremonies and social occasions. (T)
 - ii) *Bhang* and *ganja* are intoxicants. (F)
 - iii) Opiates make a person drowsy and comfortably numb. (T)
 - iv) All of us have the same reason for taking recourse to drugs. (F)
 - v) Youngsters often begin taking drugs to seek adventure. (T)
 - vi) Heroin is the drug, which is abused to the maximum. (F)
 - vii) A person gets addicted to a drug at the first instance itself. (F)
 - viii) Drugs if abused, deprives a person of a happy and healthy life. (T)
 - ix) Presence of pieces of foil or empty vials near a young person can be a warning sign. (T)
 - x) If a person knows how to handle his/her emotions, he/she can resist the temptation of drugs. (T)
3. If one notices these signs one must take adequate action, like:
- trying to find out if the youngster has any problem in life,
 - taking him/her to the doctor or to the drug treatment centre.
 - spend quality time with the member of the family suspected of using drugs.
4. Suggest some measures that one can take to avoid falling into the trap of drug taking and addiction.
- Staying away from people who take drugs
 - Staying away from places which are associated with drug use/abuse
 - Working harder
 - Not carrying much money on person
 - Eating a healthy and hearty meal
 - Handling the emotions of anger or frustration directly and not hiding behind drugs
 - Talking to a close family member or a friend
 - Telling one self the consequences of drug use and weighing them against the benefits of not taking drugs
 - Seeking the company of those who do not take any drugs
 - Going for walks or developing hobbies that give satisfaction
 - Joining a course

Check Your Progress 2

1. Words from the passage.
- i) fermenting
 - ii) intoxicants
 - iii) vivid

Notes on Drugs of Abuse

- I. History of Drug Use /Abuse
 - i) Reasons and occasions
 - ii) Kinds of drugs taken
 - iii) Made out of...
- II. Drugs in modern times
 - i) Intoxicants
 - Alcohol
 - Effect-drowsiness, pleasure and happiness
 - ii) Hallucinogens and opiates
 - Bhang and ganja
 - Hallucinations- see brighter colours, heightened perception, greater enjoyment of music
 - iii) LSD, speed and sleeping pills, glue, paint, aerosol (for sniffing)
 - iv) Cocaine and heroin
- III . Users: all ages and both the sexes
- IV. Initial effects
 - i) feeling of euphoria or high
 - ii) drowsy
 - iii) pleasure
 - iv) feeling of confidence
- V. When body gets addicted
 - i) steady increase in dosage
 - ii) total dependence on drugs, unable to do anything without its support
 - iii) failing health and performance
 - iv) mood swings
- VI. Drugs largely abused
 - i) Alcohol
 - ii) Heroin
 - iii) Cannabis
 - iv) Other drugs
- VI. Symptoms of use amongst the young
 - i. Unexplained poor school performance
 - ii. Sudden rebellion
 - iii. Behaviour changes
 - iv. Drowsiness
 - v. Mood swings
 - vi. Increase demand for pocket money
 - vii. Presence of drug use paraphernalia e.g. empty foils and vials etc.

VII Preventive Measures

- i) Counselling about the ill effects of taking drugs
- ii) Things a person can do to prevent from falling into the clutches of drugs.
 - Staying away from people and places associated with drug use/abuse
 - Working harder
 - Not carrying much money on person
 - Eating a healthy and hearty meal
 - Handling the emotions of anger or frustration directly and not hiding behind drugs
 - Talking to a close family member or a friend
 - Telling one self the consequences of drug use and weighing them against the benefits of not taking drugs
 - Seeking the company of those who do not take any drugs
 - Going for walks or developing hobbies that give satisfaction
 - Joining a course

Listening Text: Frequently Asked Questions about Arthritis

A: Good morning, Doctor.

Doctor: Good morning. Please have a seat.

A: Doctor my mother has some swelling in her ankles. People say that it is arthritis. So I have come to find out more about arthritis. Can I take about 10-15 minutes of yours or shall I come some other time?

D: I am a bit free at this time. We could have a discussion. What do you wish to know?

A: What is Arthritis?

D: Arthritis in simple language means pain or swelling in a joint. The term is broadly applied to any kind of joint disease.

A: What is Rheumatism?

D: Rheumatism is a term used by lay people for aches, pains or stiffness of any of the three structures, namely joints, bones and soft tissue.

A: Soft tissue?

D: 'Soft tissue' means the tissue between the skin and bones. Thus arthritis is one type of rheumatism.

A: Are there different kinds of Arthritis?

D: 'Arthritis' is a symptom, which could result from several joint diseases. A similar example is that of fever, which could result from several diseases like viral fever or malaria. Osteoarthritis, OA in brief, is the most common type of arthritis. It is usually seen in the elderly.

A: Oh, I see. So my mother has osteoarthritis.

D: Most likely. Well, the other types include rheumatoid arthritis (RA in brief), gout, ankylosing spondylitis and so on. Children may get juvenile rheumatoid arthritis.

A: What is the difference between Osteoarthritis and Rheumatoid arthritis?

D: OA is the commonest joint disease known to mankind. It usually affects the elderly and is mainly due to ‘wear and tear’. The knees bear the brunt of OA. Other joints affected include hips, spine and hands. OA does not affect structures other than joints. It also does not shorten the life span of an individual.

A: I see.

D: Rheumatoid Arthritis (RA) on the other hand affects younger individuals, commonly in their thirties to the fifties. No age, however, is immune to RA. It can involve the lungs, eyes, skin and nerves. RA is a serious illness which requires aggressive treatment under the supervision of an expert. If untreated, RA can shorten the life span of an individual.

Fortunately for both OA and RA effective treatments are available.

A: One last question, Doctor. How does one get arthritis? Is it due to dietary indiscretion, some kind of deficiency or infection?

D: Most often the cause of arthritis is not known. Common forms of arthritis do not have any relationship with diet, dietary deficiency or excess, or any infection. Diet may play a role in triggering gout.

A: Thank you, Doctor. Can I come to you if I have any more queries?

D: Oh, you are welcome. But do give me a call before you do so.

A: Goodbye, Doctor.

D: Goodbye.

Adapted from ‘Arthritis, Frequently asked Questions, ©Dr. Rohini Handa, Department of Medicine, All India Institute of Medical Sciences, New Delhi

Check Your Progress 5

| Details of the disease | Osteoarthritis Common/not so common | Rheumatoid Arthritis Common/not so common |
|--------------------------------|---|---|
| 1. Occurrence: | common | People in the age of thirties to the age of fifties |
| 2. Age of people affected | Elderly | Joints, lungs, hands, eyes, skin and nerves |
| 3. Parts of the body affected: | Knees, hips, spine | Not serious |
| 4. Nature of illness: | Not serious | None apart from pain and discomfort |
| 5. Other risks involved: | None apart from pain and discomfort | Not known |
| 6. Causes of the disease: | Not known | Not known |

Check Your Progress 6

Do it yourself.

Care needs to be taken to take turns while speaking and using connectors and linkers for cohesion and coherence of ideas if more than one suggestion is given at a time.