**READING TEST 13**

# PART A

**TIME: 15 minutes**

- Look at the four texts, A-D, in the separate Text Booklet.
- For each question, 1-20, look through the texts, A-D, to find the relevant information.
- Write your answers on the spaces provided in this Question Paper.
- Answer all the questions within the 15-minute time limit.
- Your answers should be correctly spelt.

## Text A

Psoriasis is a chronic inflammatory disease of the immune system. It mostly affects the skin and joints, but it may also affect the fingernails, the toenails, the soft tissues of the genitals and the inner side of the mouth. Psoriasis and psoriatic arthritis can be associated with other diseases and conditions, including diabetes, cardiovascular disease and depression.

**Psoriasis Facts**

- Psoriasis is a serious medical condition.
- Approximately 7.5 million people in the United States have psoriasis and suffer from this medical condition more helplessly.
- Psoriasis can occur at any point of life time but primarily seen in adults. Up to 40 percent of people with psoriasis experience joint inflammation that produces symptoms of arthritis. This condition is called psoriatic arthritis. Psoriatic arthritis patients also experience other arthritis symptoms.
- Psoriasis usually occurs on the scalp, knees, elbows, hands and feet. Approximately 80 percent of those affected with psoriasis have a mild to moderate disease, while 20 percent have moderate to severe psoriasis affecting more than 5 percent of the body surface area.
- Plaque psoriasis is the most common form affecting about 80 to 90 percent of psoriasis, which is characterized by patches of raised, reddish skin covered with silvery-white scales.

## Text B

**Comorbidities Associated with Psoriasis;**

- The incidence of Crohn`s disease and ulcerative colitis, two types of inflammatory bowel disease, is 3.8 to 7.5 times greater in psoriasis patients than in the general population.
- Patients with psoriasis also have an increased incidence of lymphoma, heart disease, obesity, type II diabetes and metabolic syndrome. Depression and suicide, smoking and alcohol consumption are also more common in psoriasis patients.
- Psoriasis can have a substantial psychological and emotional impact on patients.
- The prevalence of lugubrious in patients with psoriasis may be as high as 50 percent. Studies have shown that psoriasis patients experience physical and mental disabilities, just like patients with other chronic illnesses such as cancer, arthritis, hypertension, heart disease and diabetes.

## Text C

**Treatment Options for Psoriasis**

- Topical treatments are helpful for mild to moderate psoriasis but do not tend to be effective for treating moderate to severe psoriasis.

- Topical treatments include anthralin, coal tar, emollients, salicylic acid, tazarotene, topical corticosteroids and forms of vitamin D. These topical medications can sometimes be used together with other medications.

- Topical corticosteroids are available in many strengths and formulations.

- Psoriasis patients with moderate to severe psoriasis can be treated with traditional systemics, phototherapy or biologic agents.

- In cases of more extensive psoriasis, topical agents may be used in combination with phototherapy, or traditional systemic or biologic medications.

- Phototherapy treatment includes narrowband and broadband ultraviolet B (UVB) and psoralen plus UVA (PUVA).

- Regular systemic treatments include acitretin, cyclosporine and methotrexate. Since biologic therapies, sporadically propounded, target the immune system, it is important to prevent infections during therapy. Patients need to be monitored and evaluated periodically.

## Text D

### The PHAROS EX-308 Excimer Laser

While mild cases of psoriasis can sometimes be treated with specific creams and ointments (Anthralin. Topical retinoids, Calcineurin inhibitors, Coal tar and others are known to be very much effective), many patients do not experience relief with these treatments. For those patients, phototherapy can be a more successful option. Phototherapy uses UV light to decrease inflammation in areas affected by psoriasis, assisting in clearing the itchy lesions. Laser such as PHAROS EX-308 Excimer Laser allows doctors to administer phototherapy in an especially effective way. This laser allows easy application of highly-concentrated and customized UV light directly to the areas of affected skin, making the treatment as effective as possible without affecting the surrounding skin.

## Questions 1-7

For each question, 1-7, decide which text (A, B, C or D) the information comes from. You may use any letter more than once.

In which text can you find information about

1 More or less like conditions arising in other diseases.
Answer_____.

2 Traditionals procedures.
Answer_____.

3 An effective way of treating.
Answer_____.

4 Facts with respect to new diseases that might arise.
Answer_____.

5 Affect people of all ages.
Answer_____.

6 People have no choice but to endure.
Answer_____.

7 Deal with depression.
Answer_____.

**Questions 8-14**

Answer each of the questions, 8-14, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

8 What phototherapy may entail?
Answer_____.

9 What psoriasis can be connected to?
Answer_____.

10 Which therapy or what is often not suggested?
Answer_____.

11 What is the initial treatment for mild to moderate psoriasis in its beginning stages?
Answer_____.

12 What is the outcome of the research conducted?
Answer_____.

13 What is the advanced treatment option available for the patients?
Answer_____.

14 What will the patients with psoriatic arthritis eventually develop?
Answer_____.

**Questions 15-20**

Complete each of the sentences, 15-20, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

15 Patients show increasing levels of _____.

16 The disease can have _____ effects on sufferers.

17 Psoriasis can be associated with other diseases such as diabetes, _____ and depression.

18_____ include acitretin, cyclosporine and methotrexate.

19 Phototherapy provides necessary help in wiping out _____.

20 Occurrence of two types of inflammatory bowel disease, is . in psoriasis patients.

# PART B

In this part of the test, there are six short extracts relating to the work of health professionals. For questions 1-6, choose the answer (A, B or C) which you think fits best according to the text.

## Questions 1-6

1. Blood cell levels will be low;

A. If there are too many immunoglobulins.
B .If there are too many myeloma cells in the bone marrow.
C. If there are less antibodies.

## Tests to Find Multiple Myeloma

## Blood counts

The complete blood count (CBC) is a test that measures the levels of red cells, white cells, and platelets in the blood. The most common finding is a low red blood cell count (anemia).

## Quantitative immunoglobulins

This test measures the blood levels of the different antibodies. There are several different types of antibodies in the blood: IgA, IgD, IgE, IgG, and IgM. The levels of these immunoglobulins are measured to see if any are abnormally high or low. In multiple myeloma, the level of one type may be high while the others are low.

2 What is right about immunoglobulin?

A. Finding a monoclonal immunoglobulin in the blood may be the first step in diagnosing multiple myeloma.

B .Produces different types of proteins.

C .It will not produce all the exact same antibody.

## Electrophoresis

The immunoglobulin produced by myeloma cells is abnormal because it is monoclonal. Serum protein electrophoresis (SPEP) is a test that measures the immunoglobulins in the blood and can find a monoclonal immunoglobulin. Then, another test, such as immunofixation or immunoelectrophoresis, is used to determine the exact type of abnormal antibody (IgG or some other type). This abnormal protein is known by several different names, including monoclonal immunoglobulin, M protein, M spike, and paraprotein. Immunoglobulins are made up of protein chains: 2 long (heavy) chains and 2 shorter (light) chains. Sometimes the kidneys excrete pieces of the M protein into the urine. This urine protein, known as Bence Jones protein, is the part of the immunoglobulin called the light chain. The tests used for finding a monoclonal immunoglobulin in urine are called urine protein electrophoresis (UPEP) and urine immunofixation. These are done most often on urine that has been collected over a 24-hour period, not just on a routine urine sample.

3 What is correct about Free Light Chains?

A. Ratio of kappa and lambda is 1:1.
B. Come in handy when it is not possible to diagnose by other methods.
C. Possibly, no differences in ratio arises with differences in light chains.

## Free light chains

This test measures the amount of light chains in the blood, being a possible sign of myeloma or light chain amyloidosis. This is most helpful in the rare cases of myeloma in which no M protein is found by SPEP. Since the SPEP measures the levels of intact (whole) immunoglobulins, it cannot measure the amount of light chains. This test also measures the light chain ratio which is used to see if one type of light chain is more common than the other. Kappa and lambda, in most cases, are present in equal amounts in the blood,. If one kind of light chain is more common than the other, the ratio will be different, which can be a sign of myeloma.

4 The notice deals with;

A. A chromosomal structure testing.
B. FISH and its effectiveness.
C. Appropriateness of the results.

**Fluorescent in situ hybridization (FISH)** is similar to cytogenetic testing. It uses special fluorescent dyes that only attach to specific parts of chromosomes. FISH can find most chromosome changes (such as translocations and deletions) that can be seen under a microscope in standard cytogenetic tests, as well as some changes too small to be seen with usual cytogenetic testing. FISH can be used to look for specific changes in chromosomes. It can be used on regular blood as well as bone marrow samples. It's very accurate and because the cells don't have to grow in a dish first, results are often available within a couple of days.

5 What is right about BUN?

A. Patient may lose his / her memory.
B .Differences in elecoroyuytes y arse.
C. The higher the Cr levels, the greater is the effect on the kidney.

## Blood chemistry tests

Levels of blood urea nitrogen (BUN) and creatinine (Cr), albumin, calcium, and other electrolytes will be checked. BUN and Cr levels show how well your kidneys are working. Higher levels mean that kidney function is impaired. This is common in people with myeloma. Albumin is a protein found in the blood. Low levels can be a sign of more advanced myeloma. Calcium levels may be higher in people with advanced myeloma. High calcium levels can cause severe symptoms of ennui, weakness, and confusion. Levels of electrolytes such as sodium and potassium may be affected as well.

6 Bone marrow biopsy;

A Is painful.
B Is painless.
C Helps detect myeloma.

## Bone marrow biopsy

In bone marrow aspiration, the back of the pelvic bone is numbed with local anesthetic. Then, a needle is inserted into the bone, and a syringe is used to remove a small amount of liquid bone marrow. This causes a brief sharp pain. Then for the biopsy, a needle is used to remove little amount of bone and marrow, about 1/16-inch across and 1-inch long. Patients may feel some pressure during the biopsy, but it usually isn't painful. There is some soreness in the biopsy area when the numbing medicine wears off. Most patients can go home immediately after the procedure. A doctor will look at the bone marrow tissue under a microscope to see the appearance, size, and shape of the cells, how the cells are arranged and to determine if there are myeloma cells in the bone marrow and, if so, how many.

## PART C

In this part of the test, there are two texts about different aspects of healthcare. For questions 7-22, choose the answer (A, B, C or D) which you think fits best according to the text.

## TEXT 1: All about Hemochromatosis

Hemochromatosis is the most common form of iron overload disease. Primary hemochromatosis, also called hereditary hemochromatosis, is an inherited disease. Secondary hemochromatosis is caused by anaemia, alcoholism, and other disorders. Juvenile hemochromatosis and neonatal hemochromatosis are two additional forms of the disease. Juvenile hemochromatosis leads to severe iron overload and liver and heart disease in adolescents and young adults between the ages of 15 and 30. The neonatal form causes rapid iron build-up in a baby`s liver that can lead to death.

Hemochromatosis causes the body to absorb and store too much iron. Once it grips on anyone, it will be difficult to free that person from its clutches. The redundant iron builds up in the body`s organs and damages them. Without treatment, the disease can cause the liver, heart, and pancreas to fail. Iron is an essential nutrient found in many foods. The greatest amount is found in red meat and iron-fortified breads and cereals. In the body, iron becomes part of haemoglobin, a molecule in the blood that transports oxygen from the lungs to all body tissues. Healthy people usually take in about 10 percent of the iron contained in the food they eat, which meets normal dietary requirements. People with hemochromatosis absorb up to 30 percent of iron. Over time, they absorb and keep in their body between five to 20 times more iron than the body may be in quest of. Because the body has no natural way to rid itself of the unwanted or superfluous iron, it is stored in body tissues, specifically the liver, heart, and pancreas.

Hereditary hemochromatosis is mainly caused by a drawback, a flaw in a gene called HFE, which helps regulate the amount of iron absorbed from food. The two known mutations of HFE are C282Y and H63D. C282Y is the most important because it is this which can lead to disturbance in taking the helm. In people who inherit C282Y from both parents, the body absorbs too much iron and hemochromatosis can result. Those who inherit the defective gene from only one parent are carriers for the disease but usually do not develop it; however, they still may have a little than orderly iron absorption. Neither juvenile hemochromatosis nor neonatal hemochromatosis are caused by an HFE defect. Juvenile and neonatal hemochromatosis are caused by a mutation in a gene called hemojuvelin.

Hereditary hemochromatosis is one of the most common genetic disorders in the United States. It most often affects Caucasians of Northern European descent, although other ethnic groups are also affected. About five people out of 1,000 - 0.5 percent - of the U.S. Caucasian population carry two copies of the hemochromatosis gene and are susceptible to developing the disease. One out of every 8 to 12 people is a carrier of one abnormal gene. Hemochromatosis is less common in African Americans, Asian Americans, Hispanics/Latinos, and American Indians. Although both men and women can inherit the gene defect, men are more likely than women to be diagnosed with hereditary hemochromatosis at a younger age. On average, men develop symptoms and are diagnosed between 30 to 50 years of age. For women, the average age of diagnosis is about 50.

Joint pain is the most common complaint of people with hemochromatosis. Other common symptoms include debility, abdominal pain and heart problems. However, many people have no symptoms when they are diagnosed. If the disease is not detected and treated early, iron may accumulate in body tissues and eventually lead to serious problems such as arthritis; liver disease (including an enlarged liver); cirrhosis; cancer; liver failure; damage to the pancreas, possibly causing diabetes; brain fog; heart abnormalities, such as irregular heart rhythms or congestive heart failure; impotence; early menopause; abnormal pigmentation of the skin, making it look gray or bronze; thyroid deficiency; damage to the adrenal glands; constant fatigue etc.

**Text 1: Questions 7-14**

7 According to Paragraph 1, hemochromatosis occurs due to;

A. An excess of iron in the blood.

B .A decrease in the quantity of iron in the blood.

C. A genetic disorder.

D .Alcoholism

8 In one of the forms of hemochromatosis, which one of the following conditions occurs?

A. Anaemic people are more prone to hemochromatosis

B It can be more fatal as the quantity of the iron increases more and more

C. It can be the result of some genetic disorder but may not lead to death

D. None of this above

9 According to paragraph 2, the patient`s body shows unusual capabilities of;

A. Absorbing iron from food eaten.

B. Storing the iron derived from the food.

C. Absorption and storage of iron.

D .Retaining 20 times more than the iron required.

10 In paragraph 2, which word or phrase may mean the following: â€œTo cause someone or something to be free from an unpleasant or harmful thing?â€•

A. Superfluous

B. Free from clutches

C .Rid off

D. Grips on

11 According to paragraph 3, the affected people;

A. May show the presence of defective genes from both the parents.

B. May take defective genes from a single parent.

C. Show capabilities of absorbing and retaining more than the iron required for the body.

D. Show the presence of only C282Y.

12 Which word in the paragraph 3, may mean â€œorganizeâ€• or â€œmanageâ€•?

A. Take the helm

B. Orderly

C. Regulate

D.None of the above

13 Paragraph 4 deals more with;

A. Symptoms and diagnosis

B .The risk factors of hemochromatosis

C .Hereditary hemochromatosis

D. How common it is in other countries

14 Which one of the following is considered a major symptom?

A. Arthritis

B .Skin coloration

C .Joint pain

D .Brain fog

## Text 2: Chronic Myelogenous Leukemia

Leukemia is a type of cancer that starts in the blood or blood-forming tissues. There are many different types of leukemia, and treatment is different for each one. Chronic leukemias develop in a lackadaisical way in comparison with that of acute leukemias, which show great momentum and multiplication celerity. But CL can be just as life threatening. Chronic myelogenous leukemia is commonly referred to as CML. Other names for this type of cancer include chronic myeloid leukemia, chronic myelocytic leukemia, and chronic granulocytic leukemia. This is a cancer of the white blood cells. In CML, blast cells, or immature white blood cells, form and multiply uncontrollably; they crowd out all the other types of necessary blood cells.

CML has different phases of progression. Which phase the disease is in determines the appropriate treatment. The phases are based on the number of blast cells present and include: the chronic phase, the accelerated phase, and the blast crisis phase. The Chronic Phase: This is the earliest stage of CML, and you may have some symptoms or none at all. During this phase, your white blood cells can still fight infections in your body. The Accelerated Phase: In this phase, your red blood cell counts are low, and anemia (not enough iron in your blood) may occur. Platelet levels are also reduced, which may cause easy bruising or bleeding because platelets help to form blood clots. The amount of blast cells increases. A fairly common complication at this point is a swollen spleen, which may cause stomach pain. The Blast Crisis Phase: A large number of blast cells are present in this advanced phase. Symptoms in this phase are more severe and can be life threatening.

Genetic mutation is known to be the driving factor for this disease. Doctors do not know what implants this initial mutation but it does happen in an unusual way. In humans, there are 23 pairs of chromosomes. In individuals with CML, part of chromosome 9 is switched with a piece of chromosome 22. This makes a short

chromosome 22 and a very long chromosome 9. The short chromosome 22 is called the Philadelphia chromosome, and is present in 90 percent of CML patients. Genes from chromosomes 9 and 22 then combine to form a gene, the BCR-ABL gene that enables specific blood cells to multiply uncontrollably, causing CML.

Because CML generally does not cause symptoms in its early stages, the cancer is often detected during a routine blood test. When there are symptoms, they are general and can be symptoms of other health conditions as well. Symptoms may include fatigue, night sweats, fever etc. If tests suggest that you may have cancer, a bone marrow biopsy is performed. This is to get a sample of bone marrow to send to a lab for analysis. Once diagnosed, tests will be done to explore the extent of disease in your body. A complete blood work-up is typically ordered, along with genetic tests done in a laboratory. Imaging tests such as an MRI, ultrasound, and CT scan can also be used to determine the extent of the disease.

Targeted therapies are typically used first in CML treatment. These are drugs that attack a specific part of the cancer cell to kill it. In the case of CML, these drugs block the protein made by the BCR-ABL gene. They may include imatinib, dasatinib, or nilotinib. These are newer therapies that have been very successful; they are truly far from being too perilous. Chemotherapy involves using drugs to kill cancer cells. These drugs are systemic, which means they travel through your entire body via your bloodstream. They can be given intravenously or orally, depending on the specific drug. They are a common cancer treatment with side effects that may be intense, but may not lead to precarious conditions. A bone marrow transplant (also called a blood stem cell transplant) is used when other treatments have failed; this is because those who opt for it go for broke in most of the cases. There is a significant chance of adverse side effects. In this type of transplant, chemotherapy is used to kill the cancerous cells in your bone marrow before healthy donor cells are infused into your blood to replace them. Side effects of this procedure vary widely but can include minor things such as chills and flushing or major complications like anemia, infections, and cataracts.

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B.The risk factors of hemochromatosis

C. Hereditary hemochromatosis

D. How common it is in other countries

14 Which one of the following is considered a major symptom?

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B. Skin coloration

C. Joint pain

D.Brain fog

## Text 2: Questions 15-22

15 According to paragraph 1, which one of the following statements is true?

A. Chronic leukemia grows at the same speed as that of acute leukemia.

B. Only acute leukemia can be much more fatal than chronic leukemia.

C. Leukemia is a condition in which blood cells start multiplying at a constant speed.

D .Acute leukemia grows at a rapid speed.

16 Which word in paragraph 2 may suggest the following meaning: â€œslow in movement, showing little energy or enthusiasmâ€•?

A. Momentum

B .Lackadaisical

C. Celerity

D .None of the above

17 Paragraph 2 talks more about;

A. Development stages of the leukemia.

B. Different phases of leukemia.

C. Progression of CML.

D. How CML occurs.

18 According to paragraph 3, which one of the following statements is true?

A .The gene that grows out of the fusion of genes from chromosomes 9 and 22 plays a crucial role in multiplication of the blood cells which eventually leads to CML

B. Chromosomes 9 and 22 combine in an unusual way to give birth to BCR - IBL

C .Most of the patients across the globe show the combination of the genes from chromosome 9 and chromosome 22

D .None of the above

19 Paragraph 4 talks more about;

A. CML tests

B. Symptoms of CML

C. The procedure for identification of CML

D.How CML is diagnosed

20 According to paragraph 4, which one of the following statements is correct?

A. A complete blood report will be prescribed at the end of the initial diagnosis

B .An ultrasound should be performed before the blood tests

C. If the reports are suggestive of cancer, then a bone marrow biopsy is performed

D. None of the above

21 Paragraph 5 give notice about;

A The three most common treatment options for CML

B Differences among targeted therapy, chemotherapy and bone marrow transplants

C Why a bone marrow transplant is a better option than chemotherapy

D How targeted therapy is better than the other two treatment options

22 Which word or phrase suggests the following meaning: â€œRiskyâ€•?

A Perilous

B Go for broke

C Precarious

D None of the above