

<p>المادة : لغة إنكليزية الشهادة : الثانوية العامة فرعا : العلوم العامة وعلوم الحياة نموذج : رقم (3) المدة : ساعتان ونصف</p>	<p>الهيئة الأكاديمية المشتركة قسم: اللغة الإنكليزية وآدابها</p>	 <p>المركز القومي للبحوث والابتكار</p>
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نموذج مسابقة (براعي تعليق الدروس والتوصيف المعدل للعام الدراسي 2016-2017 وحتى صدور المناهج المطورة)

Part One: Reading Comprehension

(Score: 24/40)

Read the selection below about biomass, a renewable energy resource, and then answer the questions that follow.

Renewable Energy

1 Energy is the material basis on which human beings rely and carry out economic development. Renewable biomass energy occupies an important position and plays a **decisive** role in the present world energy structure. According to statistics, one seventh of the total world energy consumption is from biomass. In developing countries, the proportion of biomass in total energy consumption is even more. At present, about 1.5 billion of the world population has biomass as its main energy resource. So, using biomass energy, a kind of potential renewable energy resource, more efficiently is an issue that needs to be seriously considered.

2 Biomass energy is the house of renewable energy resource in the world. Like a great solar chemical industry plant, it spreads in plants all over land and water throughout the world and continuously transfers solar energy into chemical energy stored in the inner part of plants in the form of organic matter. So, a kind of **abundant** renewable biomass energy is composed.

3 About 120 billion tons of biomass, the energy capacity of which is five times the total present energy consumption in the world, is formed each year by means of photosynthesis. But only one percent of the total energy capacity has been used as energy. It can supply about fourteen percent of total energy consumption in the world.

4 Biomass energy is the only one that has the properties and characteristics of fossil fuel. The sunlight is the original source of both energy forms. Both are formed into original material by photosynthesis combining carbon dioxide and water into plant matter.

5 According to where it is found, biomass energy can be divided into forest biomass, agricultural biomass and aquatic biomass. It can be divided into one-time energy resource and two-time energy resource according to forming process. The former refers to various forests, agricultural crops, grass and aquatic plants that are from photosynthesis and the latter refers to biomass energy that is produced indirectly, including organic wastes, organic waste water, effluent mud as well as other organic wastes formed in industry and agriculture processing.

6 The biomass energy resource has many advantages such as infinite resource capacity, lower price, less sulphur composition, less ash content and the feature of renewability. On the other hand, it also has some **unfavorable** aspects such as higher water content, lower unit thermal output, large volume, decentralized resource and unsuitability for collection and transportation.

7 The disadvantages of biomass energy can be overcome. As long as suitable measures are adopted; taking into account local conditions, using available science and technology, selecting a reasonable technical program, adopting advanced techniques, developing new energy conversion

methods and paying attention to the energy utilization efficiency and economy of biological system, then biomass resources can be used in a more **efficient** way.

8 A biomass conversion system can bring different benefits to human beings. It has the characteristics of a good all round system. Its waste material can be used as energy and the final residue can be returned to fields as fertilizers, especially the photosynthesis of green plants which can improve the worsening environment resulting from the high **emitted** carbon dioxide. As an energy source, biomass also benefits to alleviate the contradictions between increasing demand and declining sources of conventional energy.

9 The development of society raises higher and higher requirements for energy. Low-grade fuel is no longer suitable for the civilization. That normal solid biomass fuel is converted to high-grade gas and liquid fuel and then further transferred to electricity and hydrogen energy which has become the development trend of biomass utilization.

10 Along with the development of modern science and technology, people in the 21st century have a good chance to develop and use, scientifically and reasonably, the biomass energy resource. Looking forward to the future, biomass energy will accompany people towards a more beautiful and developed world.

Questions:

A- Answer the following questions in 1-3 sentences using your own words.

- 1- Based on paragraph 1, why does the writer consider renewable biomass energy very important nowadays? **(Score: 02)**
- 2- According to paragraph 8, how can the world benefit from biomass? **(Score: 02)**
- 3- How can you best describe the writer's tone in paragraph 10? Justify your answer. **(Score: 02)**
- 4- Based on paragraph 3, what conclusion can you draw about the use of biomass? Explain. **(Score: 02)**

B-

- 1- What type of introduction does the writer use in paragraph 1? What purpose does it serve? **(Score: 02)**
- 2- What is the writer's purpose in writing this selection? Explain. **(Score: 02)**
- 3- What three types of audience would be interested in reading this selection? Explain the interest of each. **(Score: 03)**
- 4- What is the pattern of organization of paragraph 6? Explain. **(Score: 02)**

C- Read the following poor version of a one-sentence summary of paragraph 5 and then rewrite it correctly. **(Score: 02)**

Poor version: *Biomass energy is divided into two types; the first type is one-time energy resource and the second is two-time energy resource.*

D- Based on the indicated paragraphs, what does each of the following pronouns refer to? **(Score: 01)**

- 1- it (Paragraph 6)
- 2- It (Paragraph 8)

E- The reading selection has ten paragraphs (1 →10). Each of the following extracts (A and B) is the correct part that completes ONE paragraph in the selection. Read extracts A and B carefully and then choose from paragraphs (1 →10) the one that correctly fits with each extract.

(Score: 02)

Extract A- *In addition to energy supply and demand , biomass gets rid of the need to have fossil fuels exported and imported around the world which will benefit many countries that do not have oil or coal reserves by lowering the price of electricity .*

Extract B- *As derived from biological material, they are carbon based that burn in oxygen and produce carbon dioxide. They both offer high energy density, burn easily with lots of heat and can be stored and transferred.*

F- Use contextual clues to figure out the meaning of each word in the box below. Then fill in the blanks with the correct words to complete the following sentences. (Score: 02)

decisive (Paragraph 1)	abundant (Paragraph 2)	
unfavorable (Paragraph 6)	efficient (Paragraph 7)	emitted (Paragraph 8)

- 1- The condition that is _____for healthy skin is long exposure to extremely hot weather.
- 2- The high number of votes by the president’s supporters was the _____ factor in making him win the elections.
- 3- The great variety of plants and flowers in this area is due to the fertile soil and the _____ rain and sunshine.
- 4- The major causes of high air pollution in our small city are the gases_____ from cars and factories.

Part Two: Writing:

(Score: 16/40)

Choose ONE of the following prompts:

Prompt (A): Read the following statement about the impact of using energy resources.

Rapid development in technology and industry in recent years causes more environmental and health problems. Today, the risks that result from the increasing use of energy resources are a significant threat to the environment and human health. When choosing the resources for energy production, many negative effects must be considered; otherwise, the destruction of ecological balance and disasters in the future will be inevitable.

Write an essay in which you explain the above statement. As you develop your essay, refer to the negative impact of using energy resources on public health and the environment. Then, explain the measures that should be taken to protect the environment and human health.

In your essay, provide a thesis statement in the introduction, a topic sentence in each body paragraph and support the main idea with relevant, specific and adequate details. Give examples drawn from your reading, experience or observation. Your essay should be between 250-300 words with an appropriate title. Revise and proofread your essay.

Prompt (B): Read the following statement about the management of natural resources of energy.

By studying natural resources of energy, economists learn how to develop methods of management that transform these natural resources into resources of wealth. This leads to the damage of the environment and depletion of resources. Governments should stop such methods even if the economy will suffer in order to keep these natural resources maintained for future generations.

Write an argumentative essay in which you argue *for* or *against* the above statement. As you develop your essay, support your position by drawing on logical reasoning and experience. In your supporting paragraphs provide relevant, specific, and adequate evidence and examples from your reading, experience or observation. Your essay should be between 250-300 words with an appropriate title. Revise and proofread your essay.

Your essay will be evaluated based on content and organization of ideas (Score: 07), language and style (Score: 07), tidiness and legible handwriting (Score: 02).

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أسس التصحيح (تراعي تعليق الدروس والتوصيف المعدل للعام الدراسي 2016-2017 وحتى صدور المناهج المطورة)

A-

- 1- The writer considers renewable biomass energy very important because one seventh of the total world energy consumption depends on biomass, and the consumption proportion of developing countries is even higher. Also, it is the main energy resource for about 1.5 billion of the world population.
- 2- Human beings can benefit from the biomass conversion system for the environment by using its waste material as energy and using its residue as fertilizers to improve the environment that is worsening from the high emission of carbon dioxide .It can also reduce the gap between the increase in demand and decline in sources of conventional energy.
- 3- The writer's tone is hopeful and optimistic about the use of biomass energy resource. The writer describes it as a "good chance" for use in the 21st century, and it promises a "beautiful and developed" world in the future.
- 4- Biomass is underused as an energy resource. Its capacity is five times the world energy consumption currently, and it can supply up to fourteen percent of this consumption. However, only one percent of its capacity has been used.

B-

- 1- The writer uses statistics to arouse curiosity and orient the reader into the topic.
- 2- The writer's purpose is to convince the reader that biomass is a potential renewable energy resource that needs to be used more efficiently.
- 3- The three types of audience might be environmentalists to learn about the effects of renewable energy on the environment, governments to develop methods for efficient use of biomass energy and economists to understand how using biomass energy can contribute to economic growth.
- 4- It is a pattern of organization of contrast. The writer explains the advantages of biomass energy. Then the writer uses "on the other hand" to explain its unfavorable aspects.

C- Biomass energy can be classified according to where it exists such as forest biomass, agricultural and aquatic biomass and according to the forming process from photosynthesis or organic materials.

D- 1-"it" in paragraph 6 refers to biomass energy resource.
2-"It" in paragraph 8 refers to biomass conversion system.

E- Extract A is the correct part that completes paragraph 8.
Extract B is the correct part that completes paragraph 4.

F-

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|----------------|-------------|
| 1- unfavorable | 2- decisive |
| 3- abundant | 4- emitted |