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OPEN UNIVERSITY OF SRI LANKA
COURSE IN ENGLISH FOR SCIENCE / B.ED LSE 2303 / 1603
PART II
FINAL EXAMINATION 2008/2009

Date: 08th July 2009

Time: 03 hours

Index No: Centre:
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Instructions: Answer All Questions.

For Examiner's Use Only

Question No:	Marks Obtained	Maximum
Part A 1	10
2	15
Part B 3	30
4	20
Part C 5	15
6	<u>10</u>
Total	100
	=====	===

Signature of Examiner :

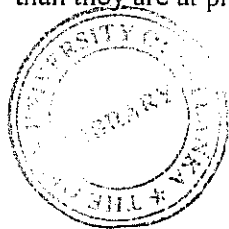
Name :

Part A - Grammar and Vocabulary

1. Fill in the blanks in the following sentences with the appropriate form of the words given in the brackets. **Spelling mistakes will be penalized.**

- 1) Environmental occurs during the mining of limestone. (degrade)
- 2) Biological resources are of immense value. (economy)
- 3) The recycling of plastics is seen as a means of resources. (conserve)
- 4) Many nations have made a commitment to carbon dioxide emissions. (stable)
- 5) advance in the design of wind turbines brought down the cost of wind electricity. (Technology).
- 6) Rock boulders along the coastline to prevent erosion. (place)
- 7) Scientists have been the possible impact of the increase in carbon dioxide on the Earth. (study)
- 8) Water has become a global problem due to the growing population. (scarce)
- 9) Always keep tools clean and oiled. (slight)
- 10) Rise in sea levels can render areas less than they are at present. (produce)

(10 marks)



Hand writing, spelling, punctuation and grammar will be taken into consideration when awarding marks.

Part B - Writing

3. Discuss any one of the topics given below. Marks will be awarded for facts supported with example.

- a) Deforestation has come to be regarded as one of the world's pressing problems.
- b) Discuss ways and means of solving the garbage problems faced by urban dwellers.
- c) Tourism is becoming increasingly important as a source of revenue to many countries, but its disadvantages should not be overlooked. Discuss.

Your essay should contain

- i) at least 05 paragraphs and each paragraph must contain at least 4 sentences.
- ii) an introduction
- iii) 03 body paragraphs
- iv) a conclusion

(30 marks)



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4. Study the graph which shows the prices of wheat and rice.

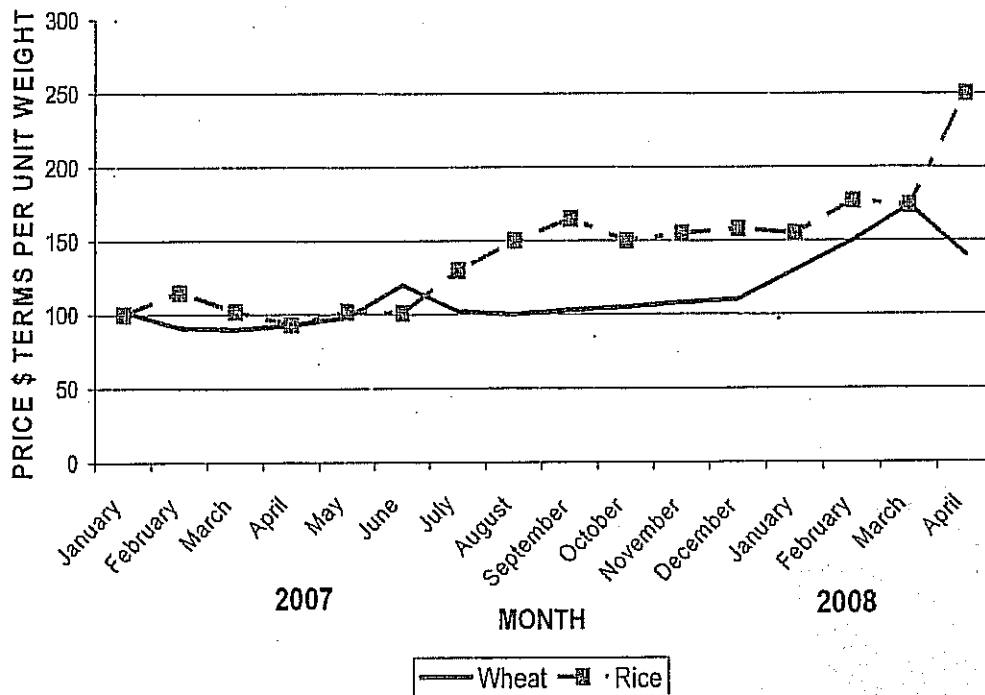
Analyse the graph and write 08 sentences. Use the words given below.

Your analysis should include

- i) an introductory sentence
- ii) six sentences using the words
both, gradual, steep, however, drop, stable,
- iii) concluding sentence



PRICES OF GRAIN: WHEAT, RICE



1. Introduction
.....
2.
.....(both)
3.
..... (gradual)
4.
..... (drop)
5.
..... (however)
6.
.....(steep)
7.
.....(stable)
8. Conclusion
.....



(20 marks)



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Part C - Reading

5. Read through the following passages and answer the questions given below.

Answers should be written in complete sentences in your own words as far as possible. Marks will be deducted for grammar and spelling mistakes

1 Hydrogen is the most recent and the most promising alternative to
2 petroleum. Other alternatives include batteries, methanol, natural gas etc.
3 However hydrogen fuel cells have an advantage over the other
4 possibilities. Basically hydrogen doesn't pollute the atmosphere and also
5 is the most abundant element found in the universe. It is also renewable.
6 Fuel cells represent a radical departure from the conventional internal
7 combustion engines. Fuel cells run on electric motors which create their
8 own electricity through a chemical process that uses hydrogen and
9 oxygen from the air. Thus fuel cells have the potential to generate power
10 for almost any kind of machinery or equipment that uses fossil fuels. The
11 most important use of full cell technology is the introduction of fuel cell
12 powered vehicles. The fuel cell powered vehicles can reach speeds as
13 high as 90 m.p.h. and the storage capacity per tank is high. However
14 there are some disadvantages that retard the development of hydrogen
15 fuelled cells. The high cost is one of them. Billion of dollars are needed
16 to refine the technology industry and the infrastructure. Infrastructures
17 include basic facilities and services like hydrogen stations to refuel cars,
18 mechanics who know how to repair the fuel celled cars, educational
19 programmes to inform the public about the safety and convenience of
20 using fuel cars.

21 Some government sponsored initiatives have created incentives
22 for fuel cell powered vehicles but probably one of the most successful
23 programmes is the STEP program which is an acronym for Sustainable
24 Transportation Energy Programme. STEP is a demonstrative project
25 sponsored by the government of Australia. In this project gasoline driven
26 buses have been replaced with fuel – cell buses on regular transportation
27 roster. Scientists and engineers are trying to develop a fuel cell that is
28 effectively engineered and is commercially viable. The World Bank is
29 providing, funding to promote the development and manufacture of fuel
30 cell buses for public transportation in China, Egypt, Mexico, and India.

Questions

1. a) List the alternatives to petroleum mentioned in Paragraph 01?

(02 marks)

- b) What are the advantages of using hydrogen?

(02 marks)

2. How does the power generated from fuel cells differ from the internal combustion engines?



(02 marks)

2. Is this statement 'True' or 'False'?

The World Bank is providing funds to promote development and manufacture of fuel cell buses for public transportation in Australia, China, Egypt, Mexico and India.

Support your answer with a sentence from the passage.



(02 marks)

6. Read through the following passage and answer the questions given below.

1 Copper is an essential element. The main sources of copper are its
2 sulphide and oxide ores from which the metal is extracted by roasting,
3 smelting and electrolytic refining. There are substantial deposits of
4 copper in Rajasthan, India, which have been estimated to contain about
5 200 million tons of copper.

6 The tough but malleable and soft metal is highly resistant to
7 corrosion and is next only to silver in electrical conductivity. Hence
8 copper finds widespread use in industries next only to iron and
9 aluminium. It is used widely in dyes, paints, pigments, ceramics, in many
10 pesticides and some therapeutical preparations as well. Copper
11 contamination of the environment is largely due to its release by
12 industrial units producing non – ferrous metals, fertilizers, disposal of
13 tailings or the solid wastes from mines and from flyash produced by
14 combustion of coal and organic matter.

15 Workers involved in spraying of Bordeaux mixture (an insecticide
16 with copper) on grapes and other crops develop acute irritation of
17 respiratory tract and metal fume fever characterized by the development

18 of interstitial, pulmonary lesions and modular fibro-hyaline scars
19 containing deposits of copper. Lung cancer may also develop in many
20 cases. An ingestion of about 50 – 80mg of copper causes gastro –
21 intestinal disturbances, nausea, vomiting etc. Larger quantities, taken
22 accidentally or intentionally may cause haemolysis hepato-toxic and
23 nephrotoxic effects

24 In plants low levels of copper are essential for normal activity of a
25 number of enzymes and for chlorophyll synthesis. However, at a slightly
26 higher concentration copper is the most toxic element after mercury.
27 Inhibition of growth occurs at concentrations less than 0.1 ppm in
28 majority of plant species. Intake of copper by plants is accelerated in
29 presence of calcium and magnesium ions but diminishes with fall in pH.
30 A higher concentration of copper is injurious to blue green algae since
31 this metal tends to suppress nitrogen fixation.

Questions

1. a) What are the features of copper mentioned in Paragraph 01?

(02 marks)

- b) List the use of copper mentioned in Paragraph 01?

(02 marks)



2. Describe the effect of copper on

a) environment

(02 marks)

b) human beings

(02 marks)

3. Give another word / group of words which means the same as

i) acute in Paragraph 03 line 16

ii) diminishes in Paragraph 04 line 29

(02 marks)

