



International Baccalaureate
Baccalauréat International
Bachillerato Internacional

**Towheed Iranian School
(International Section)**

First Term, Final Exams, 2015-2016

Subject: Environmental Systems and Societies

Date: 13/12/2015

Name: _____

Grade: 11 IB, Boys, Girls

Exam time: 90 min

<i>Mark</i>	
56	7

1- Discuss how different environmental value systems (EVS) influence responses to the usage of resources by humans.

Ecocentric

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Anthropocentric

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Technocentric

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Question 1:(6 Marks)

2- Refer to the first case study, answer the following questions.

I. Melting glaciers are example of _____ feedback.

II. Explain your answer.

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III. Why melting of the glaciers has an impact to the global warming / climate change?

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IV. Discus in this statement from the given case study:

Ecologists are concerned that warm waters are disrupting nutrient movement and food webs.

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Question 2:(7 marks)

3- **Refer to the second case study, Measuring Energy Flows in Cedar Bog Lake, answer only 3 questions.** (9 marks)

I. Define a system and give an example of an ecological system.

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II. Draw one system diagram for this ecosystem and show its input(s) output(s) flow(s) and storage.

III. Define Species, Population, and community and by referring to this case study give one example for each.

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IV. Write one limitation (disadvantage) of model. Give one example of model (refer to the case study) use your own words.

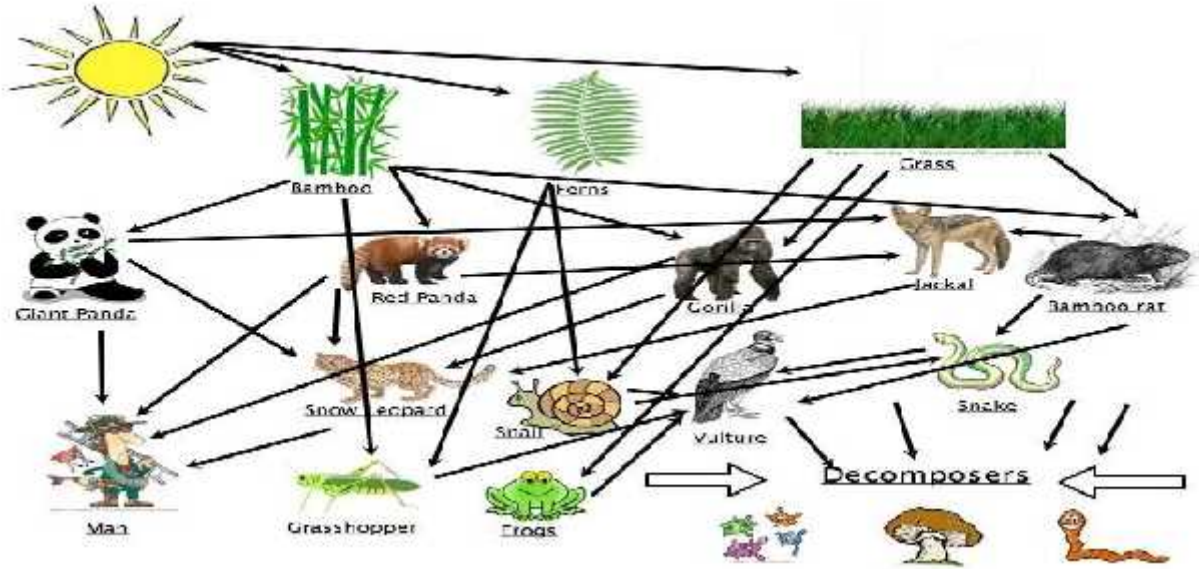
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- V. By drawing the productive pyramid explain the following statement.
To his surprise, he found that each successive feeding level contained only about 10 percent of the energy captured by the level below it. The remainder is lost as heat or deposited in sediments, he argued, because of the work that organisms perform and the inefficiency of biological energy transformations.
Hint: you may use reasonable numbers in your pyramid.

Question 3:(10 points)

Answer the following questions:

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- I. What is the name of this figure?
- II. Draw two food chains from this figure.

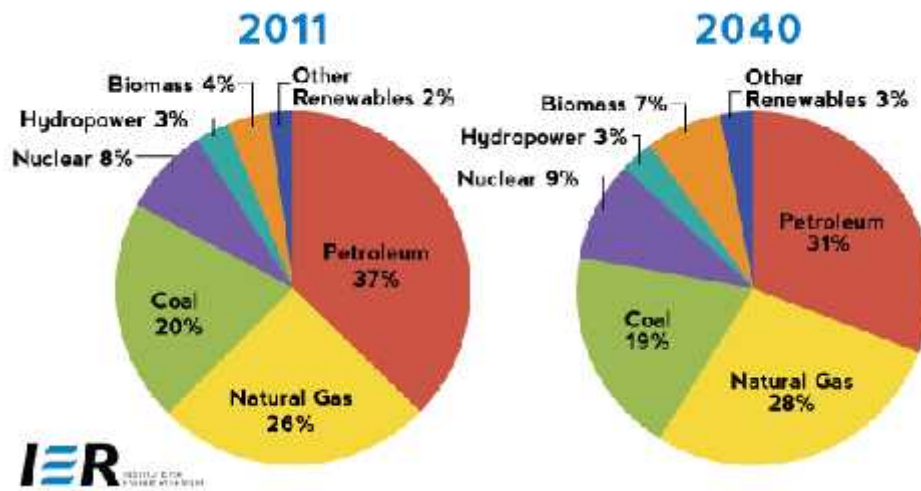
III. Identify one auxotroph, two herbivores, one secondary consumer.

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IV. What is job of decomposer? Explain.

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Question 4 (10 marks)



I. Briefly interpret the given graph.

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II. Calculate the percentage of energy usage in years 2011 and 2040.

III. Write one fact one advantage and one disadvantage of nuclear energy

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IV. Discuss why the usage of other sources of energy will be increased by year 2040.

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Question 5: (9 marks)

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This figure shows the suggested alternative energy sources for Emirate of Abu Dhabi. In your opinion which source choice is the best and more secure? Explain it.(names of the energy sources, facts , limitations and strengths)

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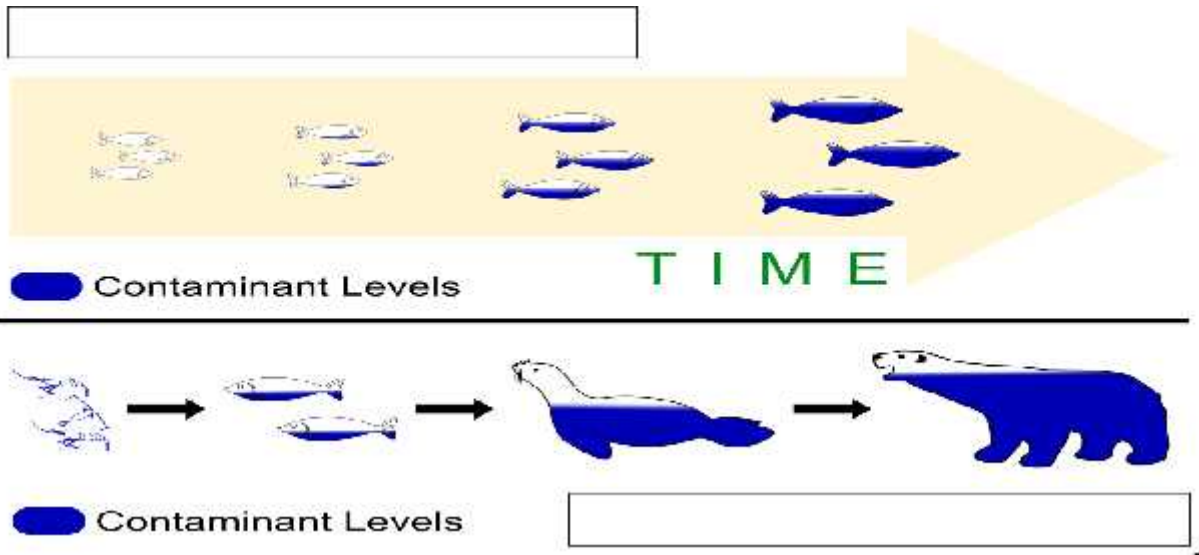
Question 6: (3 marks)

7- Match the following.

	Above the Tipping point	a	All get benefits
	Closed system	b	One gets harm
	EIA	c	Energy yes matter no
	Point source pollutant	d	unsustainable
	mutualism	e	Should be done before starting the project
	J curves	f	Factories chimney
	Parasitism	g	Boom and bust

Question 7: (7 marks)

8- Fill in the boxes; and interpret the figure.



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Question 8: (4 points)