



**ESCUELA SUPERIOR POLITÉCNICA DEL LITORAL**  
**FACULTAD DE CIENCIAS NATURALES Y MATEMÁTICAS**  
**DEPARTAMENTO DE CIENCIAS QUÍMICAS Y AMBIENTALES**



**FIRST EVALUATION OF ENVIRONMENTAL IMPACT OF PROJECTS (70 PTS)**  
**I SEMESTER 2014-2015**  
**JULY 2014**

**NOMBRE:** .....

**PARALELO:**.....

**NOTA:** Este examen está diseñado para ser resuelto de manera individual, puede usar una calculadora ordinaria para sus cálculos aritméticos, un lápiz o esferográfico. Solo puede comunicarse con la persona responsable de la recepción del examen; y, cualquier instrumento de comunicación que hubiera traído, deberá apagarlo y ponerlo en la parte anterior del aula, junto con algún otro material que se encuentre acompañándolo. No consultará libros, notas, ni algún apunte adicional a las que se entreguen en esta evaluación. *Desarrolle los temas de manera ordenada.*

**Firme como constancia de haber leído lo anterior.**

\_\_\_\_\_ Firma

**1. Write the letter according to the concept of each term (1 e/o) pts)**

	<b>Term</b>	<b>Concept</b>	
A	Physical models	Relative knowledge or ignorance common to every EIA process which is also critical for the impact prediction	
B	Impact	Document that describes in detail the actions required to prevent, mitigate, control and compensate the possible negative environmental impacts	
C	Baseline	A method for impact prediction	
D	Doubt	Decide if the EIA must be done and at what level	
E	Background	Any action that produce a change or alteration on the environment.	
F	Reversible Impact	Natural of juridic person, from the private or public sector interested in the development of a project, responsable of the actions of development of a project.	
G	Environmental Management Plan	The impact can be eliminated or mitigated by human action	
H	Promotor	The original environmental conditions existing at a given moment before a change	
I	Recoverable impact	Environmental conditions that governs before any alteration or impact.	
J	Screening	The environment can recover itself after some time	

**2. Answer the following questions**

- 2.1. a. What is the doubt according to the EIA process. (2 pts)  
 b. Which are the doubt sources (3 pts)

- 2.2. a. Explain how the insurances policies will work in case an accident and impacts occur during the project and why are they important. 3 p  
 b. Indicate the types of insurances policies that must be fulfilled according to the Ecuadorian law for the EIA 2 p  
 c. If something happen during the project who/what will be responsible for executing the insurance policies. Why? 3 p

- 2.3. What are the steps (in order) to get the Environmental License. 5 p

**3. Choose and circle the right word to complete the relation between the environmental aspects and the significance. (8 pts)**

- More level of public awareness (higher/lower) the significance of the impact
- More damages and lost of resources (higher/lower) the significance of the impact
- Less strict the environmental standards (higher/lower) the significance of the impact
- Less scientific knowledge (higher/lower) the significance of the impact

**CASE 1 (22 pts)**

An important Chinese Company is planning to build a intelligent and very high tech harbor for commerce activities in Ecuador. The final location still have to be decided according to the results got in the EIA study. This Company has hired a Consultancy group to develop the EIA study. Based in all the available information that you might have, answer the following questions.

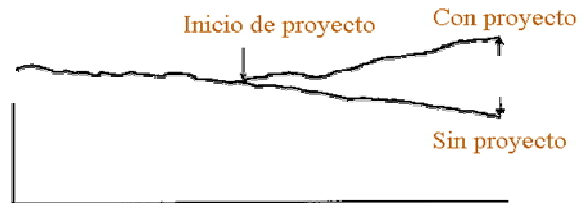
- a. Mention the methods used for impact prediction and two advantages and disadvantages of each one of them (8 pts)


- b. Which method you will use for the impact prediction? why? 2p  
 c. How many alternatives and according to what criteria will you present as part of the EIA study. why? 2 p  
 d. How many experts and what professional fields will be included in the Consultancy team to perform the EIA study? Why? 2p  
 e. Who is/are the promotor of this project? 1 p  
 f. Mention three characteristics from the ones explained in class that the Consultancy group must have? 3 p  
 g. What category will this project have according to the MAE classification.? Why? 2 p  
 h. What/Who will evaluate the studies and notify the promotor the aproval of the EIA and EMP 2p

**CASE 2 (12 pts)**

A tannery (curtiembre) factory has been operating for about 7 years. It started their activities on 2007 and they have been keeping up with the environmental legislation and fulfilling all the standards. Three years ago they changed the Manager and since then the environmental parameters, specially CO<sub>2</sub> has been increasing every year. At some point some mitigation measurements have been put into practice in the factory to decrease the impact.

Year	CO <sub>2</sub> ppm	Year	CO <sub>2</sub> ppm	Year	CO <sub>2</sub> ppm	Year	CO <sub>2</sub> ppm
2003	0.23	2006	0.24	2009	0.25	2012	0.36
2004	0.24	2007	0.23	2010	0.38	2013	0.26
2005	0.25	2008	0.24	2011	0.39	2014	0.24
<b>Allowed limit</b>	0.35						



With the data given above complete the graph and answer the following questions.

- a. When was the mitigation measurement put into practice (what year) according to the graph 2 p  
 b. Indicate what year the impact was more severe according to the graph. Explain how did you get to that conclusion? 3 p  
 c. Indicate what each of the lines of the graph means and represents and fill the boxes in the graph. **Complete** the graph with all the information required to perform the analysis 5 p  
 d. Indicate one mitigation measurement that could have been put into practice to decrease the level of CO<sub>2</sub> 2p