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**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, December 2017**

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**Program: BALLB EL**  
**Subject (Course): Economics of Oil and Gas Sector**  
**Course Code : LLBD 208**  
**No. of page/s: 4**

**Semester – III**  
**Max. Marks : 100**  
**Duration : 3 Hrs**

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**Please answer all sections.**  
**All questions carry equal marks.**

**SECTION A**

**10X1=10 Marks**

**I. Please fill up the blanks:**

1. OVL stands for .....
2. NRL is a subsidiary of.....
3. ....is purely marketing company.
4. EIL is connected with the.....aspects of the Oil and Gas sector.
5. FOB stands for .....
6. The full form of ULCC is .....
7. The process of liquefaction is connected with.....
8. Shale gas is a kind of gas.....
9. Free Market economy is based on .....and .....forces.
10. Ocean Losses range from .....to.....of the crude

**II. Please answer in three sentences each:**

**5x3= 15 Marks**

1. Why is sour crude undesirable?
2. What is the need of strict environmental regulation in current days?
3. Give your opinion on the deregulation of the oil and gas sector.
4. What is subsidy? Give an example of subsidized product.
5. What do you understand by optimization of refining process?

**SECTION B**

**5X5=25 Marks**

**Please answer in brief:**

1. Explain your understanding of the need for liberalization/ decontrol of oil and gas sector in India. Explain the paradigm shift in the business process.
2. What is freight cost? What is WS and AFRA in the calculation of freight cost. Solve the given example:  
  
Suppose the WS from Ras Tanura to Mumbai is \$10 /MT . LR II for the month =110.  
Calculate the freight.
3. What do you understand by Refinery Profitability Margins? What is the need and importance of Refinery Margin?
4. Explain in detail the problems/issues being faced by the upstream sector and suggest ways to overcome them.
5. What do you understand by Hydrocarbon Vision. Explain the broad objectives and the specific and medium term objectives of the of all the connected factors contained in the vision.

**SECTION C**

**15X2=30 Marks**

1. Explain what is the importance of Refinery Economics ? What are the elements of crude cost.? Give and explain the elements of Crude cost and Refinery Costs? Also explain what are Operating Costs?
2. Explain in detail the derivation of the mechanism of the pricing of the Domestic Natural Gas in India put forward by the Rangarajan Committee Report.

**SECTION D**

**10X2=20 Marks**

**Please read the case and answer the questions:**

**The strategic financing role of national oil companies**

External and fiscal deficits are a structural problem in Latin American countries. For this reason, debt flows play an important role in external and fiscal financing, as shown by the large foreign financing requirements of Latin American countries compared to other emerging regions. Despite significant improvement in debt indices from their debt crisis levels, foreign financing will continue to be an important part of the region's equation as long as external and domestic deficits continue to endure and foreign savings continue to fill the investment gap resulting from the region's low domestic savings rates. Argentina's 2001-2002 debt crisis serves as yet another example of this major structural weakness in Latin American economies.

How do external and fiscal imbalances enter the discussion on reform in Latin America's oil sector? First, as mentioned before, they help to explain the strategic nature of certain state-owned companies. Second, the issue sheds light on the privatization process from a financial point of view. That is, the privatization of public enterprises that were draining the central government's fiscal accounts served to reduce the overextended Latin American state and thus, fiscal deficits. However, NOCs have played a central role in Latin America's economy because of both the significant financial benefits they offer as a source of fiscal and external revenue, and their role as a subsidizing mechanism for the rest of the economy. Also, NOCs have played a role as lenders of

last resort to governments via their direct access to external credit or as providers of indirect government financing. These are some of the mechanisms used:

*a) National oil companies are a source of fiscal revenues:*

Common wisdom regarding public enterprises holds that transfers only flow from the government to the deficit-driven public company. Regardless of their efficiency, NOCs are an exception to this rule since they have generally contributed fiscally to the government coffers by a series of revenue-gathering mechanisms such as royalties, income taxes, sales taxes (on domestic sales) and export taxes (on foreign sales).

Mexico, Venezuela, Ecuador and Colombia, the NOC is an important contributor of fiscal revenues to the State. In Venezuela and Mexico, the fiscal take has been, at different stages, more than 60 percent of the company's sales, which implies a large share of the oil rents transferred to the state. Taxes on NOCs have been important independent of the NOCs exporting or importing nature. For example, significant fiscal taxes were imposed on YPF all throughout its history; the same can be said of Pemex, even in the period when its export base was 20 percent of total production (today Pemex fiscal taxes represent about 50-60 percent of the company's total income).

*b) Latin American NOCs are among the region's biggest borrowers. This fact came to light at the time of the debt crisis. The decapitalizing policy of some NOCs had to be financed somehow, since they had to absorb domestic subsidies, contribute to fiscal revenues and maintain inefficient operating structures. The relatively more efficient NOCs did not resort to debt to finance daily operations. Nonetheless, even for these efficient NOCs, financing future production required important capital investment, and indigenous resources were insufficient on this count. After the 1970s, with greater availability of foreign financial capital, NOCs came to represent a large share of the total foreign debt. For example, in the 1980s, YPF and Pemex represented between 15 and 20 percent of their countries' total foreign debt (in 1982 Pemex alone owed almost US\$16 billion to foreign creditors).*

Q1. Explain the situation that was prevailing in the Latin American countries and how the NOC played an important role in mitigating the situation and the corresponding issues.....(10 Marks)

Q2. *“NOCs have played a role as lenders of last resort to governments via their direct access to external credit or as providers of indirect government financing.”* Please justify the statement by explaining analytically the mechanisms adopted , in your own words.....(10 Marks)