



Roll No. \_\_\_\_\_

**University of Petroleum Energy Studies  
College of Management & Economics Studies  
End-semester Examination, April 2017**

**Subject : Geopolitics of Energy**  
**Course : MA Economics (Specialization in Energy)**  
**Course Code : MEDE 824**

**Semester: IV**  
**Time: 3 hrs**  
**MM: 100**

**This paper has two pages.**

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**SECTION – A**

**Write Short Notes/Comment. Each Q carries 5 marks.**

**Max Marks – 20**

- A.1.** The price of oil has hit its highest level for a month in response to the US military's missile attack (Increase of approximately USD 2 in a single day) on a Syrian government airbase (News dated 07<sup>th</sup> of April 2017). Comment the reasons for Increase in Oil prices even though Syria has a limited oil production.
- A.2.** Two thirds of the civil wars in the world are happening in Oil producing countries. Comment
- A.3.** Does UN blindly follow the rich friends (US/Russia/China). Comment
- A.4.** How does the sabotage of an Oil & Gas infrastructure affects the world order. Comment with the help of Movie “James Bond: The world is not enough”

**SECTION – B**

**Write Short Notes/Comment. Each Q carries 10 marks.**

**Max Marks – 50**

- B.1.** Comment on the impact of Persian Gulf on world oil trade.
- B.2.** When we look at the OPEC policies, its been noted that their policies are being influenced by the policies of Middle East. Comment
- B.3.** United States of America is in the centre of two third geopolitical incidents, Do you think it's a coincidence or a deliberate attempt. Comment
- B.4.** What is the role of renewable energy plays in international affairs?
- B.5.** Discuss the factors that are responsible for the rise of Solar power.

## SECTION- C

### Case Study

**Write Short Notes/Comment. Each Q carries 15 marks.**

**Max Marks – 30**

The energy needs of the every country in the world are growing fast, and competition for it, is on the rise. With the Middle East in seemingly permanent turmoil, the attention of the world is now shifting towards Russia and Central Asia. According to some estimates, India's daily oil imports are poised to rise more than three-fold by 2020, from the current level of 1.4 million barrels per day. Indian prime minister, Manmohan Singh, has gone on record saying that "energy security is second only in our scheme of things to food security". Besides other pipelines, Turkmenistan-Afghanistan-Pakistan [TAP] pipeline project, TAPI, and Iran-Pakistan- India [IPI] pipeline projects are important for Indian Energy Security.

Central Asian hydrocarbon resource reserve makes this region strategically very important for developing as well as developed countries of the world. In this modern age, energy is the locomotive of development. In this connection, the geopolitical importance of Central Asia needs no further elaboration. The location of the region, forming a land-bridge between Europe and Southern Asia, is well known, but its importance has varied with the changing international security environments. Before oil became an important ingredient of strategic conflicts, Central Asia, as currently defined, remained, by and large, a peaceful region. The republics of Central Asia have yet to settle down politically and decide what their future course of action should be. The energy needs of the world are growing fast, and competition for energy acquisition is on the rise. Not only hydrocarbon (crude oil and natural gas) resources are at stake, but most other sources of energy are also depleting fast.

In this context, as fast growing economies, China and India may both need to double their oil requirements by 2030, while Europe will need to import more natural gas day by day. Even the United States, despite hopeful political speeches on energy independence, will need outside sources of oil and gas, with net energy imports being expected to rise from approximately 27% of total consumption to 38% of consumption in the next twenty years. As has been outlined earlier, with the Middle East in seemingly in permanent turmoil, much of this will have to come from Russia and Central Asia [CIS]. The outside world has in the 21<sup>st</sup> century come to regard Russia and the Commonwealth of Independent States (CIS) as increasingly important sources of energy for other countries, particularly in the West. One important geopolitical consequence of the demise of the Soviet Union was the rise of intense political and commercial competition for control of the vast energy resources of the newly independent and vulnerable states of the Caucasus and Central Asia. The energy resources and, in particular, the oil and natural gas deposits have now become the apple of discord in Central Asia, introducing, according to analysts a new chapter in the Great Game for the control over Eurasia." The advent of the US forces in Afghanistan, withdrawal of the Soviet troops from this region, and the Chinese

attempts to extend their influence in the region, has started a new Great Game, in which several European and Asian powers, along with a new shadowy player, in the garb of resurgent Islam, have become actively involved.

However, much depends on how we look at this game, and to which side of the geographic, political, ethno-religious divide we belong. The five countries that now constitute Central Asian Republics were, however, never given a chance to choose their future course or action in the wake of the post-9/11 developments that brought American troops into the region.

Central Asia's energy game is now intensifying, nevertheless, with China grabbing the spotlight with a high-profile push into Kazakhstan's energy market. The US and Russian companies remain major players in the contest to develop and export energy resources in Central Asia and the Caspian Basin. However, Chinese and Indian entities have become increasingly competitive in recent years. India, with a growing appetite for oil and gas, is working diligently to make energy inroads into the region.

Since geography cannot be changed by world events, Russia will continue to retain its influence in the region to a large degree, because of its permanent geopolitical interests in this area—which Russia calls “The Near Abroad.” Chinese influence will also grow in the region,

because of its economic thrust and geographic proximity. The essence of this new geopolitical game in Central Asia is twofold: first, control of production of the oil and gas, and second, control of the pipelines which will transfer the oil to the Western markets. While the Central Asian states have physical possession of their oil and gas reserves, they do not possess the capital and the technology that would allow them to go for production all on their own, a fact which brings in foreign companies with a share in production and revenues. Asia as a whole currently uses about as much energy as the US, or about 100 quadrillion British thermal units. By 2020, however, Asia will roughly double its energy consumption, while the US consumption will rise just more than 25 percent. Asia's energy needs will also grow in all areas, as evidenced in the following current estimates:

- oil consumption to increase by roughly 88 percent
- natural gas by 191 percent
- coal by 97 percent
- nuclear power by 87 percent when Japan is included, but 178 percent for the rest
- hydroelectric and other renewable by 109 percent.

This is a genuine change of the guard in the global marketplace— a shift of world's “demand centre.” Today, North America accounts for just under a third of the world's energy consumption, with Asia comes second at 24 percent. But within one generation, those two regions will swap both global rankings and percentage shares. In short, Asia is destined to

become the world's centre of gravity for energy flows, giving it virtually the same market clout as the North Atlantic Treaty Organization countries— or North America and Western Europe combined. In Asia, India's energy requirements and hence stakes are high.

### **Pipelines Routes: Crux of Energy Security**

Energy security is an issue which has geopolitical and international dimensions. Energy security is maintained by strategic planning to ensure diversity of fuel, diversity of supply source, and efficiency and flexibility in the energy sector. Defining threats to energy security, however, is more difficult, since it is a wide-ranging concept covering many aspects, "including access to fuel (at acceptable prices), safe transit and processing of the fuel, and protection of the environment and resources."

Attempts to define energy security more clearly is also complicated by the variety of views of what is at stake. To some it means seeking protection against politically induced supply disruptions (i.e. the supplier "turning off the taps") or technically induced supply problems (accident or breakdown), to others it is facing the challenges of terrorism, and to yet others, it means addressing the issue of global warming by changing consumption patterns. All these are involved in bringing Central Asian Oil to the international market including India.

While recognising the constraints imposed by geopolitical realities, it is also important for us to identify opportunities. The largest reserves of gas in the world happen to be in countries in the neighborhood of India such as Iran, the countries of Central Asia, Qatar, and the rest of the Gulf region. It is also evident that the largest markets for this gas are in South Asia. Diplomatic breakthroughs and political initiatives involving countries to both the east as well as the west of India can ensure large-scale supplies of natural gas through pipelines, that would not only provide us with greater security of supply but also large quantities of a clean fuel that would have major environmental benefits.

It has been established that Central Asian States have huge reserve of oil and natural gas waiting to be tapped. The area around the Caspian Central States has been witnessing frenetic activity, with important geographical implications. "In 2005, The US backed Baku- Tbilisi- Ceyhan [BTC] pipeline was opened. Subsidized by the US government to the tune of \$ 2 billion, the pipeline will carry Caspian Sea oil from Azerbaijan to Turkey via Georgia." In the recent past, the Central Asia Pipeline, Ltd. (CentGas) consortium, in which Unocal holds an interest, was formed to develop a gas pipeline that will link Turkmenistan's vast natural gas reserves in the Dauletabad Field with markets in Pakistan and possibly India. "An independent evaluation shows that the field's resources are adequate for the project's needs, assuming production rates rising over time to 2 billion cubic feet of gas per day for 30 years or more".

Doubts on Iranian route have been relatively lessened in recent months. In his South Asian tour [mainly India and Pakistan] US President George Bush okayed the \$7.2 billion project linking Iran, Pakistan and India [IPI]. But Pakistan's questionable ability to protect the pipeline, as it passes through sensitive Baluchistan, creates doubts in New Delhi. An alternative is being considered by New Delhi in the shape of the Turkmenistan –Afghanistan-Pakistan[TAP] pipeline project, which already has the backing of Asian Development Bank] (ADB) and the US. India has reportedly decided to join the \$3.5 billion TAP project for fetching gas from Turkmenistan. This will also help unlock gas from Uzbekistan, Kazakhstan and Azerbaijan. Further TAP is also key ingredient of Washington's Afghan rehabilitation plan as it will earn substantial transit fee.

The economic benefit alone is expected to ensure the safety of the pipeline. During his visit to Afghanistan, August 28, 2005 Indian Prime Minister Manmohan Singh said that both pipeline projects needed to be realized in order for New Delhi to achieve the energy security that it seeks. "It is not a question of preferring one [pipeline] over the other," Singh said during a joint news conference with Afghan President Hamid Karzai. "We need both pipelines. ... India's needs for commercial energy are increasing at an explosive rate", he reiterated, The then Petroleum Minister Manishanker Aiyar, clearly advanced the idea of duplicating the Baku-Tbilisi-Ceyhan pipeline (BTC) that runs from Azerbaijan through Georgia to Turkey, and aimed at building up an export route connecting India and the Caspian Basin. He also aimed at buying some crude oil from other sources. One of these was the BTC pipeline and another was the Eilat-Ashkelon pipeline in Israel<sup>19</sup>, the oil from which could be shipped from the Red Sea to India via the Indian Ocean. He was also exploring natural gas deals from Qatar and evidently wishes to conclude a contract with Azerbaijan for up to 5-6 million tons of oil annually beginning early in 2006.

However, tapping such resources has not been easy. Political instability together with the region's isolation and poor infrastructure has been discouraging Western investors. It will take some time before transportation and other infrastructure of the region improves and energy extraction and supply begins in a big way. India for her own sake is keenly observing the developments and is also actively participating in finalizing the pipeline routes and other associated things; however lot depends on international support and participation.

- C.1.** Comment, how geopolitics plays a very vital role in Central Asian Reserves and what are India's prospective in those fields?
- C.2.** A secure and stable Caspian sea is India's interest. Comment