

Name:
Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Introductory Oil and Gas Economics
Program: BA EE
Course code: ECON 2004

Semester III
Time: 03 Hours
Max. Marks: 100

Instructions: Please answer all the sections

SECTION A

		Marks	CO
Q 1	Statement of question: <i>Please state true or false giving reasons in max two sentences.</i>	5x3=15	CO
	a. The main attraction for granting 100% FDI in India are, increasing the inflow of Foreign Exchange (T/F) ,the reason being. (Please explain in two sentences)		CO2
	b. Energy Dependence on any outside sector/country in harmful(T/F),the reason being.(Please explain in two sentences).		CO3
	c. A Central form of government has more advantages than disadvantages (T/F). the reason being .(Please explain in two sentences).		CO3
	d. The possession of crude oil reserves gives a power to affect international relations . between countries (T/F). Please explain in two sentences.		CO4
	e. The advantage of PNG(Piped Natural Gas) over conventional LPG is that of convenient servicing facility (T/F). Please explain in two sentences.		CO5

SECTION B

Q 2	Statement of question: <i>Please answer in brief:</i>	5X5=25	CO
	<p>a. Give your preference between a Government controlled economy and a Market driven Economy. Please give reasons and examples for the same. Explain the concept of Social welfare in economic development.</p> <p>b. The awareness of the common people is important for energy conservation and Crude oil saving. What steps would you suggest to be efficient in reducing the consumption of energy in homes.</p> <p>c. A good credibility rating (Image) is important in what ways in getting a crude oil business in International Market. Please give reasons as to why this would be so. What do you think of having good relations for oil trade?</p> <p>d. Explain the following terms:</p> <ol style="list-style-type: none"> 1. Ocean losses 2. Insurance 3. Wharfage 4. Custom Duties <p>This should be in context with Crude oil price .</p> <p>e. Give the relevance of the following suggesting ways to overcome the deficiencies of APM:</p> <ol style="list-style-type: none"> 1. Quality Improvement 2. Cost Reduction 3. Improved Service 4. Competition 5. Improved Service <p>Please write how these affect the growth of energy sector and the economy.</p>		<p>CO2</p> <p>CO3</p> <p>CO4</p> <p>CO1</p> <p>CO2</p>

SECTION-C			
Q 3	Statement of question: <i>Please write in detail</i>	10X3=30	CO
	<p>1. Natural gas needs to be imported to meet the domestic needs for energy , of the people of India. The process of price fixing of the natural gas is important. Explain the significance of pricing the imported gas with a perspective of Indian consumption as Natural Gas . How is this important importing any other energy product for Indian consumption. Show the derivation of the Mechanism .</p> <p>2. “Large increases in oil and gas consumption raise significant geopolitical issues that could intensify as competition for supplies increases, market power is accumulated in fewer places” What do you understand of the above statement? Explain some probable incidents which could happen with dependence on Middle East, for Crude Oil.</p> <p>3. What are NOCs ? How are they different from IOCs. Name a few NOCs. Please explain what are the functions of NOCs .What would be the NOC wanting from the IOC and what would be IOC looking for from NOC , informing joint venture alliances. In brief explain what are PSCs?</p>		<p style="text-align: right;">CO3</p> <p style="text-align: right;">CO2</p> <p style="text-align: right;">CO4</p>
SECTION-D			
Q4	Statement of question: <i>Please read the case and answer the questions:</i>	15+15=30	CO
	<p>If we were able to capture and use the energy from just two minutes of sunlight falling on the earth, it would be enough to fuel our cars, light and heat our buildings, and provide for all of our other electricity needs for an entire year.</p> <p>Simply put, we humans are not facing a shortage of energy.</p> <p>We are facing a technical challenge in capturing it and delivering it to consumers.</p> <p>One of the most efficient ways to meet that challenge is to invest in better ways to store it.</p>		

Many of the world's problems today can be traced to energy use, from conflicts over oil supplies and concerns about greenhouse-gas emissions to lost productivity and output stemming from shortages and blackouts.

In many of the poorest parts of the world, the lack of energy stifles economic development.

Globally, more than 1.3 billion people have no access to electricity; and some 2.6 billion have no access to modern cooking facilities. More than 95% of these people are in Sub-Saharan Africa or developing Asia, and 84% live in rural areas.

During the run-up to the recent presidential election in Nigeria, for example, a woman was asked what she wanted the candidates to deliver. She replied with a one-word answer: "Light."

Electricity, a basic commodity, would allow her to continue to work and her children to study.

Unreliable or unavailable energy is a problem in much of Africa and the Indian subcontinent, as well as some other parts of Asia.

According to a report by the International Energy Agency, improvements to the energy sector could provide the equivalent of a decade of growth in some of the poorest parts of the world.

Our global energy crisis has been aggravated by a lack of innovation. According to a study by the US government's Lawrence Livermore National Laboratory, in Livermore, California, more than 60% of the energy we use is lost between the time it is generated and the time it is consumed.

This includes the inefficiency in converting fossil fuels to electricity, losses during transmission, wasteful consumer behavior, and the need to maintain a reserve to prevent blackouts.

A new wave of innovation is required, one that can eliminate waste, reduce pollution, and broaden access to energy around the world. That means focusing on efficiency-boosting

technologies such as wireless communication, machine-to-machine communication, smart metering, and better production management.

Renewable energy sources, including solar and wind power, are well positioned to contribute to energy needs in both mature and emerging economies.

But, because the sun does not always shine, and the wind does not always blow, energy from these sources is unstable and intermittent. And this will continue to be a problem unless, and until, we are able to store power from renewable sources efficiently.

Studies by the US Western Electricity Coordinating Council have found that finding better ways to store energy could cut total waste by about 18% and boost the efficiency of electricity use by up to 11%. Better energy-storage methods would also make it easier to deliver electricity to hard-to-reach areas that are currently underserved, as well as help make the best use of often-scarce sources of power.

One well-tested method for storing energy is to use excess capacity to pump water into reservoirs, so that it can be used later to power turbines when demand is high. But this approach is practical only in mountainous areas, making it unsuitable as a mass-market solution. Promising areas of research include grid-scale batteries with the ability to charge and discharge tens of thousands of times and data analytics to optimize the use of the batteries and make the grid as efficient as possible.

It is not enough to generate energy. We must also use it efficiently, and the wide-scale adoption of state-of-the-art storage technology will be an essential part of the solution.

Ensuring that the world's energy supplies are stable, efficient, accessible, and affordable will take time.

Q1.What are the problems besides technical challenges to capture and deliver energy ? Give examples where people are affected by unavailability of energy.

	<p>What are the problems associated with energy in energy aspect? What is your opinion on wasteful consumer behavior , which leads to inefficiency....(15)</p> <p>Q2. Suggest some actions which are required to eliminate this for example ,reducing Waste. What is your opinion on promoting renewable energy sources eg. Solar Wind, power? Suggest some better ways to store energy? How does using state of art technology help?..(15)</p>		<p>CO3</p> <p>CO4</p>
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