



University of Petroleum & Energy Studies
 Bidholi Campus, Dehradun
 End Semester Examination – May , 2020

Programme Name: B.Tech (APE-Gas)
Subject: Understanding Natural Gas Business
Duration: 3 Hrs.

Semester : VIII
Subject code: PTEG 466
M. Marks: 100

Note: All sections are compulsory.

SECTION – A (20 Marks)

Write true or False. All questions carry 2 marks.

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| 1.1 Natural gas is not the cleanest fuel among all fossil fuels | True/False |
| 1.2 Reforming of natural gas produces synthesis gas | True/False |
| 1.3 LNG can be used as such as fuel | True/ False |
| 1.4 Spot contracts refer to transactions for immediate delivery | True/ False |
| 1.5 Gas quality is not related to pipeline specifications of natural gas | True/ False |
| 1.6 Unbundling means split of a company into its constituents | True/ False |
| 1.7 Ethane & propane from natural gas are feedstocks for petrochemicals | True/ False |
| 1.8 Cost associated with exchange of goods / services is called transaction cost | True/ False |
| 1.9 Monetizing discovered natural gas in a timely manner is important | True/ False |
| 1.10 Methane and Carbon dioxide gases do not cause global warming | True /False |

SECTION – B (15x2=30 Marks)

Fill in the blanks All questions carry 2 marks.

- 2.1 Fossil fuels include , and coal.
- 2.2& and PNG are different forms of natural gas.
- 2.3 and are large producers of natural gas in the world.
- 2.4 Fertilizer plants use natural gas as raw material for producing
- 2.5 Natural gas is produced as.....gas with crude oil and asgas.
- 2.6 Natural gas is being produced from andsources.
- 2.7 Liquefaction temperature for producing LNG is °C.
- 2.8 Hydraulic Fracking technique is used for recovery of gas fromsources.
- 2.9 CNG and PNG are and fuels respectively.
- 2.10 Natural gas marketing / trading involves..... and Trading.
- 2.11 Trade is offrom one person or entity to another.
- 2.12 When the is in output from industrial sectors drops.
- 2.13 Astrategy is created to reduce the risk of money.
- 2.14 The futures market consists of and natural gas under contract at least one month, and up to 36 months, in advance.
- 2.15 Raw natural gas is to meet the specified by the major pipeline transmission and distribution companies.

SECTION – C

(10x5 = 50 Marks)

Write short answers. Attempt any 10 questions. All questions carry 5 marks.

- 3.1 What are the factors which are considered as demand drivers for natural gas?**
- 3.2 What are different sectors which use natural gas and how it is used there?**
- 3.3. What are the different operations in LNG production from natural gas?**
- 3.4 Mention some important properties of natural gas. How those are related to safe handling of natural gas?**
- 3.5 What is meant by strategic storage of natural gas and why it is important?**
- 3.6 On what important factors price of natural gas is fixed? For which sector in India the natural gas is subsidized and why?**
- 3.7 Name some large natural gas producing and exporting countries. In what forms natural gas is transported indigenously and over the seas and why ?**
- 3.8 Describe the role of ONGC, OIL & GAIL in our country?**
- 3.9 Name the LNG terminals operating in the country with their role and the total quantity of LNG being handled by those.**
- 3.10 What is third party access (TPA) and what is its role?**
- 3.11 What factors make a market well developed? What are three well defined main segments of pipeline gas market?**
- 3.12 What are physical and financial trading ?**
- 3.13 How CNG is a cleaner alternate fuel in automotive sector? How it is transported to various locations and how it is dispensed?**

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