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**UNIVERSITY OF PETROLEUM
& ENERGY STUDIES**



End Semester Examination – May, 2017

Program/course: MBA (O&G), MBA (ET)

Subject: Energy and Utilities

Code : MDSO861

No. of page/s: 2

Semester : IInd

Max. Marks : 100

Duration : 3 Hrs

All questions shall be strictly answered in chronological order.

SECTION A

[30 Marks]

(10X3)

Ques 1: Write a note on the need and importance of Oil Field Services.

Ques 2: List the various components of a Home Area Network

Ques 3 What are the reasons for Natural Gas to be considered as one of the best fuels for power generation?

Ques 4: Fill in the blanks:

- a. Hazard + _____ = Incident
- b. The measure of the _____ and _____ of an adverse effect caused by a hazard.
- c. The HAN is a _____ within the _____ dedicated to demand-side management (DSM)

Ques 5: An unplanned event that did not result in injury, illness, or damage – but had the potential to do so. What is such an unplanned event known as?

Ques 6: Which of the following are necessary steps to conduct a Hazard Analysis on your worksite:

- a) Review Accident History
- b) Conduct Preliminary Interview
- c) Involve Employees
- d) All of the above

Ques 7: List any two industries where a Home Area Network could be used.

Ques 8: Name the longest pipeline operational in India.

Ques 9: What do the following abbreviations mean?

- (a) SAN
- (b) PIG
- (c) CGD

Ques 10: Name any two industries/sectors where a Home Area Network could be useful.

SECTION B

[20 Marks]

Ques 11: With suitable examples, discuss the importance of Keywords in a Hazop Study.

(5)

Ques 12: Hazard Inspection Guidelines can help in reducing the risk and avoid the hazard. With the help of a suitable example, analyze the importance of the Hazard Identification Guidelines,

(5)

Ques 13: The transmission utility follows an Order of Preference while allowing open access for sale/purchase of power. List the order of preference.

(5)

Ques 14: Explain the challenges and key success factors for O&G Deepwater companies? (5)

SECTION C

[30 Marks]

Ques 15: Home Area Network forms a part of the Smart Grid Infrastructure. In this context identify the various stakeholders and discuss how a Home Area Network aids in savings for the stakeholders

(10)

Ques 16: Analyze and explain the role of “Historical Conditions, Existing Conditions and Future Conditions” in conducting the Hazard Identification study.

(10)

Ques 17: With reference to a Smart Grid, highlight the role of Generation, Transmission and Distribution as constituents of a Smart Grid.

(10)

SECTION D

[20 Marks]

Ques 18: With reference to a City Gas Distribution Project, what are the various segments? Which is the most attractive segment?

(10)

Ques 19: Assuming you are heading the City Gas Project in Dehradun, what are the sources of Natural Gas that you will target for supply? What companies will be targeted for the same? (10)