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UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, April 2018

Programme: MBA Oil & Gas Management

Course Name: Data Analytics & Applications in Oil and Gas

Course Code: MBOI 905

Semester – **IV**

Max. Marks : 100

Duration : 3 Hrs

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1. Elaborate upon the given distributions with examples and relevant expressions– (8*4=32)
 - a. Binomial Distribution
 - b. Poisson Distribution
 - c. Geometric Distribution
 - d. Exponential Distribution
 2. What do you mean by **Measures of Central Tendency**? Give the prominently used such measures. What are the scenarios when we choose one measure over the other? (12)
 3. What could be the various parameters/variables that should be monitored during a drilling operation to assess its efficiency and safety? (12)
 4. What is '**Degree of Freedom**'? How does it affect the calculation of '**Standard Deviation**'? (8)
 5. What is the "**Finite Population Correction Factor**"? Elaborate the rationale for its usage. (7)
 6. (a) Elaborate upon the "**Central Limit Theorem**", and its implications. (15)
(b) Why do we consider a **sample size ≥ 30** as large? (8)
 7. What is the significance of **R^2** value we get after a Regression? (6)
