


Name:			
Enrolment No:			
UPES End Semester Examination, May 2024			
Course: Petroleum Economics & Risk Management Program: M.Sc Petroleum GeoSciences Course Code: PEGS 7035		Semester: II Time : 03 hrs. Max. Marks: 100	
<ul style="list-style-type: none"> • Instructions: Instructions: <u>All Questions are compulsory.</u> • <u>You have internal choice only for Question No. 6 and 10</u> 			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q. 1	Define the three periods characterized by the oil and gas production phase	[4]	CO1
Q.2	List the objectives for application of risk management techniques for oil and gas projects.	[4]	CO1
Q.3	State the difference between Royalty and Tax	[4]	CO2
Q.4	Define spot pricing in petroleum market.	[4]	CO3
Q.5	Identify the advantages and disadvantages of payback period.	[4]	CO4
SECTION B (4Qx10M= 40 Marks)			
Q.6	<p>Assume that a company purchases a second hand compressor for \$80,000 and spends \$25,000 on its cartage , repair and installation, the machine has an estimated useful life of 5 years and residual value of \$70,000. Calculate annual depreciation and the rate of depreciation by straight line depreciation method.</p> <p style="text-align: center;">OR,</p> <p>Calculate the IRR of an investment having initial cash outflow of \$280000. The cash inflow at first, second, third and fourth years are expected to be \$72000, \$97000, \$105000 and \$110000 respectively. Assume the cost of capital as 10%.</p>	[10]	CO2

Q.7	Analyze Petroleum pricing mechanisms.	[10]	CO3
Q.8	Explain sensitivity analysis. How is the sensitivity analysis performed during oil and gas exploration.	[4+6]	CO2
Q.9	Describe cause and effect diagram used in qualitative risk analysis. Illustrate your answer with suitable figures.	[10]	CO4
SECTION-C (2Qx20M=40 Marks)			
Q.10	<p>Analyze the impact of human capital risk and political risk on oil and gas industry and also summarize the measures that the industry can adopt to mitigate these risks.</p> <p style="text-align: center;">OR,</p> <p>Analyze the impact of price volatility risks and climate & environmental risks on oil and gas industry and also summarize the measures that the industry can adopt to mitigate these risks.</p>	[10+10]	[CO4]
Q.11	Explain how are the internal factors managed which influence the production of producing field.	[20]	[CO5]