


Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, May 2022			
Course: Drilling & Production Engineering Program: B.Tech. (GIE) Course Code: PEAU 2002		Semester: VI Time: 03 hrs. Max. Marks: 100	
Instructions: All questions are compulsory			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Write various factors influencing drilling fluid performance	4	CO1
Q 2	Write short note on water-based drilling mud	4	CO1
Q 3	Summarize the Rig Hoisting System used in drilling operation	4	CO2
Q 4	Explain Rolling and Fixed cutter with suitable example	4	CO2
Q 5	Discuss the various sequence of the drilling process in detail	4	CO2
SECTION B (4Qx10M= 40 Marks)			
Q 6	Write detailed notes on the following (a) Production tubing (b) Electrical submersible pump (ESP) OR Discuss the following Drilling Rig Components in detail (i.) Slips (ii.) Kelly	10	CO1
Q 7	Discuss the following drilling fluid function in detail (i) Control formation pressures (ii) Seal permeable formations	10	CO2
Q 8	Discuss the various sequence of the drilling process in detail	10	CO3
Q 9	Write a detailed notes on the following artificial lifting technique with neat sketch (i) Continuous-flow gas lift (ii) Intermittent-flow gas lift	10	CO3
SECTION-C (2Qx20M=40 Marks)			
Q 10	Write detailed notes on following	20	CO3

	(i) Surface casing string (ii) Conductor casing string (iii) Intermediate casing string (iv) Liner		
Q 11	Write detailed notes on measurement while drilling (MWD) technique used during the drilling operation. OR Write detailed notes on Logging while Drilling (LWD) technique used during the drilling operation.	20	CO4