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Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2022			
Program: B.Tech APE UP Course: Production Engineering and Well Completion Course Code: PEAU3037 Nos. of page(s): 01 Instructions: All questions are compulsory. Assume if any data is missing.		Semester : 5th Time : 03 hrs. Max. Marks: 100	
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Write the procedure to open and shut-in a well after installing the wellhead equipment.	4	CO1
Q 2	Classify the production packers also write the advantages and disadvantage of production packers.	4	CO1
Q 3	Define the well perforation. Differentiate between thru-tubing gun and tubing conveyed perforating gun with the help of suitable diagram.	4	CO2
Q 4	Differentiate between water shut off and profile modification to control the water production.	4	CO3
Q 5	Write the importance of well completion.	4	CO2
SECTION B (4Qx10M= 40 Marks)			
Q 6	List the most significant reasons to separate the paraffin from crude oil. Explain the techniques to control the wax deposition in detail.	10	CO4
Q 7	Illustrate the formation damage occurs during the specific type of well operations.	10	CO2
Q 8	Explain the following: a. Hydraulic fracturing b. Matrix acidizing c. Acid fracturing	10	CO3
Q 9	Describe the workover for mechanical failure in oil wells and to increase the production in high viscosity oil wells.	10	CO5
SECTION-C (2Qx20M=40 Marks)			
Q 10	Write the reasons for sand production, also list the methods to control sand production in oil well. Explain gravel packing techniques in detail.	20	CO4
Q 11	Differentiate between drilling and production rig. Describe the concentric tubing workover and coiled tubing unit in detail.	20	CO5