

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2019

Course: Introduction to Petroleum Operation
Program: B. Tech. Applied Petroleum + Sp. Upstream
Course Code: PEAU 2002

Semester: 3 Ac. year 2019-20
Time 03 hrs.
Max. Marks: 100

Instructions: Assume any missing data

SECTION A

There are 5 Questions of 4 marks each, all questions are compulsory.(Short Answer less than 60 words)

S. No.	Statement of question	Marks	CO
Q 1	Give 4(Four) prominent reasons for using Casings in Oil & Gas wells.	4	CO1
Q 2	Enlist 4(Four) steps of Cementing oil /gas wells.	4	CO1
Q 3	Define well bore communication and enlists its advantages.	4	CO1
Q 4	What is the utility of perforation fluids? Indicate the three different perforation fluids.	4	CO2
Q 5	Enlist the 4(Four) primary reasons for utilizing production tubing as a conduit for producing fluids.	4	CO3

SECTION B

There are 4 Questions of 10 marks each, all questions are compulsory medium length(less than150 words)

Q	Statement of question	Marks	CO
Q 1	Enlist Surface Flow Control Installation of a multiple casing string, single tubing string, flowing well and describe Christmas tree including Safety regulations. OR SEPARATOR is a unique surface facility in Oil & Gas industry describe its classification, characteristics and main features.	10	CO4
Q 2	“Formation water may be carried in the gas state as vapor, emulsified as a liquid with the oil, or produced as free water.” Discuss the oil treatment a. Free water knock out b. Oil-water (Emulsion) knockout.	10	CO3

Q 3	Oil Metering is essential economic requirement; in this context describe the different methodologies. Also, discuss tank-metering system.	10	CO2
Q 4	What do you understand by lease automatic custody transfer (LACT)	10	CO4
SECTION-C There are 2 Questions of 20 marks each, both are compulsory (long answers-not more than 400 words)			
Q 1	“Refining process aims to alter the resulting mix of refined products to fit changing customer needs.” Discuss the various aspects of Crude Oil Refining.	20	CO5
Q2	Detail the circumstances of well stimulation requirements and various aspects of acidizing operations. <u>OR</u> Detail the circumstances of well stimulation and detailed aspects of fracturing operations.	20	CO4