Name: Enrolment No:	UPES UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2020

Course: Well Intervention and Stimulation Tech. **Semester: II**
Program: M.Tech. PE **Time 03 hrs.**
Course Code: PEAU7008 **Max. Marks: 100**

M Tech II PEAU 7008
END SEMESTER EXAM ASSIGNMENT

JULY 2020 **TOTAL MARKS - 40**

1. A well shows steady decline in crude production. The operating company has therefore decided to go for stimulation and fracturing of reservoir. As a coiled tubing services engineer, you are assigned the task of stimulation and fracturing of the reservoir. Your coiled tubing unit is kept at a base station. Explain in a sequential manner, how will you perform this job to the satisfaction of your customer? **10 Marks**

2. A well is ready for production after drilling and completion. However, it is found that a metal fish is left in the well. There are some cement slices left in the tubing, which have hardened now. As a slick line engineer, what all activities you will perform so as to make well ready for production. Explain in detail the tools and methods used for this well intervention. **10 Marks**

3. As a well intervention engineer, you are part of well engineering team, which is working to complete a well drilled in a reservoir known for high paraffin and asphaltene production. Explain in detail, what control mechanisms you will suggest to well engineering team so that there are less issues of wax and asphaltene deposition during production life cycle of well. **10 Marks**

4. You are a cementing engineer at a well site, which is drilling carbonate formation known to have mud losses due to secondary porosity (fractures and vugs) in limestone. While drilling, well starts showing high mud loss and

company man decides to go for cement squeeze job. Explain in detail, how will you perform this job? What type of cement will you use for this job and what all precautions should be taken for successful placement of cement in the fracture? **10 Marks**