

Name:

Enrolment No:



UPES

Supplementary Examination, December 2023

Programme Name: B. Tech APE UP

Course Name : Oil Field Development

Course Code : PEAU 3024P

Semester : VI

Time : 03 hours

Max. Marks: 100

SECTION A (20 marks)

S. No.		Marks	CO
1	Discuss the decommissioning of the well.	4	CO1
2	Differentiate between conventional and unconventional reservoirs.	4	CO3
3	Define recovery factor.	4	CO2
4	“Data is the new oil.” Explain the statement.	4	CO4
5	Discuss the following stages of field development. i) Spudding ii) Appraisal	4	CO1

SECTION B (40 marks)

6	An oil reservoir exists at its bubble-point pressure of 2000 psia and temperature of 120°F. The oil has an API gravity of 42° and gas-oil ratio of 700 scf/STB. The specific gravity of the solution gas is 0.65. The following additional data are also available: Reservoir area = 640 acres Average thickness=10ft Connate water saturation =0.25 Effective porosity =15% specific gravity of oil = 0.8156 Initial oil formation volume factor= 1.30 bbl/STB. Calculate the initial oil in place in STB.	10	CO1
7	Explain the various components of Field Development Plan with the help of an example.	10	CO2
8	Discuss the various exploration techniques used in oil and gas industry.	10	CO3
9	Explain 1P, 2P and 3P reserves.	10	CO3

SECTION-C (40 marks)

10	Discuss the data obtained for the economic evaluation of a reservoir and the various source from which it is obtained.	20	CO4
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11	Discuss the following economic parameters which play a role in oil field development. i) Payout time ii) Profit to investment ratio iii) Present net worth iv) Internal rate of return	20	CO3
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