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VII Semester B.Tech. End-Semester Examination (POE), March 2022

CHE 4304: Introduction to Petroleum Engineering (Open Elective-IV)

MAKE UP EXAM (POE) – MAR 2022

PART B

Date: 01/3/2022

Time: 75 + 10 minutes

Max. marks: 20

Note: Answer ALL questions

- Q.1A)** Describe the gravity and magnetic surveying methods for the crude oil exploration. (3)
- Q.1B)** What are the different types of hydrocarbons present in crude oil based on their compositions? Describe them in details with examples. (4)
- Q.1C)** Discuss the effect of depletion (solution gas) drive mechanism on the reservoir pressure, gas-oil-ratio, water production rate and oil recovery. (3)
- Q.2A)** What is surfactant flooding EOR method? How does the addition of surfactant help in displacing the trapped oil from the reservoir? (3)
- Q.2B)** Derive the recovery factor expression for an *oil reservoir* using volumetric method (3)
- Q.2C)** Describe the delayed coking process with a neat sketch of the process flow diagram. (4)