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GIET UNIVERSITY, GUNUPUR – 765022

M. Tech (First Semester – Regular) Examinations, June – 2021

MPECH 1042 – Enhanced Oil Recovery

(Chemical Engineering)

Time: 2 hrs

Maximum: 50 Marks

The figures in the right hand margin indicate marks.

PART – A

(2 x 10 = 20 Marks)

Q1. Answer **ALL** questions

- Define Enhanced oil recovery.
- Define mobility Ratio.
- Write the composition of Residual Oil.
- Write the principle of Alkaline flooding.
- Write the principle of steam flooding.
- What is In situ combustion?
- Write any two advantages of microbial method in EOR.
- Write the benefit of Gas Injection in to the reservoir.
- What is the importance of Scaling?
- Write any two environmental problems affected by EOR.

PART – B

(6 x 5 = 30 Marks)

Answer ANY FIVE questions

Marks

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| 2. Discuss in details about the Macroscopic aspects of the displacement. | (6) |
| 3. Write short notes on Residual oil magnitude and mobilization. | (6) |
| 4. Describe the miscible flooding for Enhancement of Oil Recovery. | (6) |
| 5. Explain the displacement mechanisms in polymer flooding. | (6) |
| 6. Explain the gas Injection method for Enhancement of Oil Recovery. | (6) |
| 7. Discuss about the EOR through in-situ combustion technology. | (6) |
| 8. Explain the formation of damage due to migration of fine during EOR. | (6) |

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