

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
EIGHTH SEMESTER B.TECH DEGREE EXAMINATION(S), OCTOBER 2019

Course Code: AE472

Course Name: PETROLEUM ENGINEERING

Max. Marks: 100

Duration: 3 Hours

PART A

Answer any two full questions, each carries 15 marks.

Marks

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|---|----|---|------|
| 1 | a) | Explain in detail about the origin, migration and accumulation of petroleum | (10) |
| | b) | Explain the term delayed coking with diagram | (5) |
| 2 | a) | Explain the petro physical properties of reservoir rocks | (8) |
| | b) | Discuss about the Crude distillation process | (7) |
| 3 | a) | Explain in detail about catalytical hydro cracking | (10) |
| | b) | Write a short note on coring and core analysis | (5) |

PART B

Answer any two full questions, each carries 15 marks.

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| 4 | a) | List out and explain any five well servicing operations. | (5) |
| | b) | Explain various artificial lift techniques. | (10) |
| 5 | a) | Explain the working of a Shell and tube heat exchanger with necessary diagrams | (7) |
| | b) | Write a note on field processing of oil and gas | (8) |
| 6 | a) | Write a note on Nodal System analysis | (5) |
| | b) | What is LNG value chain? Explain the economics of LNG value chain in Petroleum industry | (10) |

PART C

Answer any two full questions, each carries 20 marks.

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| 7 | a) | Explain resistivity log method with diagram. What are the advantages of resistivity well logging? | (10) |
| | b) | Explain any one process for purification and preparation of petrochemical feed stock with help of a process flow diagram | (10) |
| 8 | a) | Explain with diagrams any one production logging tools with one application | (10) |
| | b) | What Are Gas Hydrates? | (5) |
| | c) | What is meant by cost curve estimate, explain with an equation? | (5) |
| 9 | a) | Write short notes on Coal Bed Methane and shale gas. | (10) |
| | b) | Explain with figures any two casing inspection tools | (10) |
