

# CBCS SCHEME

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18PC54

## Fifth Semester B.E. Degree Examination, Feb./Mar. 2022 Fundamentals of Petroleum Geology

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. Explain the history of Origin of Earth. (07 Marks)  
b. Explain the nature and properties of minerals and rocks. (13 Marks)

OR

- 2 a. Write about Sedimentary Environment. (10 Marks)  
b. Explain the following i) Stratigraphy ii) Geological time scale. (10 Marks)

### Module-2

- 3 Explain Sedimentology of Petroleum Bearing sequences. (20 Marks)

OR

- 4 a. Explain the generation and migration of Petroleum. (10 Marks)  
b. Discuss the physical and chemical properties of Petroleum. (10 Marks)

### Module-3

- 5 a. Explain subsurface environment for oil exploration. (10 Marks)  
b. Explain the formation of Fluids. (10 Marks)

OR

- 6 Write a note on : (20 Marks)  
a. Traps and Seals.  
b. Reservoir.  
c. Generation and Migration of Fluid.  
d. Composition of Fluid.

### Module-4

- 7 a. Explain the exploration of oil with principles. (06 Marks)  
b. Explain about well drilling. (08 Marks)  
c. Write a note on Formation Evaluation. (06 Marks)

OR

- 8 a. Explain about Borehole Sismic and 4D Sismic. (14 Marks)  
b. Write a note on Subsurface geology. (06 Marks)

### Module-5

- 9 a. Explain Non – Conventional Petroleum Resources. (06 Marks)  
b. Write about i) Plastic and Solid hydrocarbons ii) Tar sands. (14 Marks)

OR

- 10 Write a note on : (20 Marks)  
a. Reserve Estimation  
b. Oil and Gas Shales.  
c. Coal Bed Methane  
d. Assessment of Reserves.

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.