

CBCS SCHEME

18MN823

USN

--	--	--	--	--	--	--	--	--	--

Eighth Semester B.E. Degree Examination, June/July 2023 Coal Bed Methane

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Differentiate between CBM and Conventional resources. (08 Marks)
b. Explain the role of Geological influences on coal formation of coals. (12 Marks)

OR

- 2 a. Explain the significance of ranking in coal formation. (10 Marks)
b. Explain the principles of adsorption and explain how CH₄ content determination in coal seams. (10 Marks)

Module-2

- 3 a. Differentiate between Permeability and Porosity. (10 Marks)
b. Explain the concept of Open hole completions. (10 Marks)

OR

- 4 a. Explain the concept of closed hole completions. (10 Marks)
b. Explain the concept of Multi zone entry in closed hole. (10 Marks)

Module-3

- 5 a. Brief the nomenclature of Borchole environment. (08 Marks)
b. Explain the importance of recovery factor. (12 Marks)

OR

- 6 a. Explain the concept of coal wire line log evaluation of CBM wells. (10 Marks)
b. Explain the concept of Cleating. (10 Marks)

Module-4

- 7 a. Explain the need of fracturing coal for extraction of CBM. (12 Marks)
b. Brief the unique problems in fracturing coals. (08 Marks)

OR

- 8 a. Explain the types of fracturing fluids for coal. (10 Marks)
b. Explain the insitu factors to be considered for CBM extraction. (10 Marks)

Module-5

- 9 a. Explain the environmental impacts of Methane wells. (10 Marks)
b. Explain the importance of water disposal technique to be followed while extracting CBM. (10 Marks)

OR

- 10 a. Explain the concept of economics of coal bed methane recovery. (10 Marks)
b. Explain the factors effecting the water disposal techniques. (10 Marks)

* * * * *

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.