

M.Sc. Sem-4 Examination**510****Geology****April 2022****Time : 2-00 Hours]****[Max. Marks : 50****Attempt any three questions from section –I**

- Q - 1 Write a note on computer solutions used in mining. [14]
- Q - 2 (i) Longwall advancing method of mining. [07]
(ii) Types of drilling methods. [07]
- Q - 3 Explain Geology as applied to urban planning. [14]
- Q - 4 (i) Renewable earth resources. [07]
(ii) Environmental implications of floods. [07]
- Q - 5 Discuss the Geology of the productive oil fields of India. [14]
- Q - 6 (i) Radioactive logging. [07]
(ii) Mud-filtrate invasion. [07]
- Q - 7 Write a note on coalification time and temperature. [14]
- Q - 8 (i) Coal bed methane. [07]
(ii) Gasification of coal. [07]

Section – II

- Q - 9 **Answer any eight of the following short questions.** [08]
- (i) Define winze and raise.
- (ii) What is subgrade?
- (iii) Name the exploration phases.
- (iv) Define catastrophic hazards.
- (v) State two effects of volcanism on environment.
- (vi) Give one good example of environmental management.
- (vii) What is thermal cracking of Kerogen?
- (viii) Name the basins of Gujarat.
- (ix) Define petrophysical analysis.
- (x) State the Tertiary coal fields of India.
- (xi) Define maceral.
- (xii) What is chemical characterization of coal?
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