

AE-837

M.Sc. (Final)

Term End Examination, 2016-17

GEOLOGY

Paper - III

Fuel Geology and Ore Geology

Time : Three Hours] [Maximum Marks : 100

[Minimum Pass Marks : 36

Note : Answer **all** questions. All questions carry equal marks.

Unit-I

1. What do you mean by the coal-bed methane? Explain the maturation of coal and generation of methane in coal beds. Describe the fundamentals of coal-bed methane exploration and production.

OR

Describe the Geological and Geographical distribution of coal deposits in India. Explain the various methods of coal prospecting.

(2)

Unit-II

2. Describe the various Radioactive Prospecting methods. Also mention mode of occurrence and association of atomic minerals in nature.

OR

Write notes on the following :

- (a) Oil fields of India
- (b) Structural Traps

Unit-III

3. Explain the concept of Ore-bearing fluids, their origin and migration. Mention the structural, physico-chemical and stratigraphic control of ore localisation.

OR

Write notes on any **two** of the following :

- (a) Paragenesis
- (b) Zoning
- (c) Ore Genesis and Plate Tectonics

Unit-IV

4. Describe Fluid Inclusions under the following heads :
 - (a) Principles

(3)

- (b) Limitation
- (c) Application

OR

Describe the ores of metamorphic affiliations.

Unit-V

5. Describe the mineralogy, genesis, uses and Indian distribution of Manganese ore.

OR

Write notes on the following :

- (a) Placers and Palaeoplacers
 - (b) Residual Deposits
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