

M.Sc. (Geology) (CBCS Pattern) Fourth Semester CBCS
PSCGEOT15.1 - Elective Paper-III - Fuel Geology (Coal, Petroleum & Nuclear)

P. Pages : 2

Time : Three Hours



GUG/W/18/11388

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw neat sketches wherever necessary.

1. Describe in detail proximate and ultimate analysis of coal.

OR

Write short notes on:-

- a) Origin of coal
- b) Coal carbonization
- c) Coal hydrogenation
- d) Structures associated with coal seams.

2. Describe in detail application of coal petrology for different industrial purposes.

OR

Write short notes on:-

- a) Maceral and Microlithotype.
- b) Reflectance and fluorescence microscopy.
- c) Coal bed methane
- d) Coal exploration

3. Describe in detail petroliferous basins of India.

OR

Write short notes on:-

- a) Migration of oil and gas
- b) Structural traps
- c) Hydrocarbons
- d) Thermal cracking of Kerogene

4. Describe in detail the application of radioactivity in geochronometry.

OR

Write short notes on:-

- a) Geochemistry of radioactive minerals
- b) Metallogenic epochs
- c) Nuclear power stations of India.
- d) Uranium and thorium exploration in India.

5. Write short notes:-

- a) Grades of coal
- b) Types of coal
- c) Lignite deposits in India
- d) Retention of methane from coal beds
- e) Reservoir rocks
- f) Combination traps
- g) G.M. Counters
- h) Gamma ray logging of bore holes.
