M.Sc. - II (Geology) Third Semester Old Course

MSc2381 - Fuel Geology (Coal, Petroleum & Nuclear) Paper-I

P. Pages : 1 **GUG/W/18/2266**

Time : Three Hours * 1 7 6 3 * Max. Marks : 80

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

1. Discuss various theories of origin of coal. Add a note on Sedimentology of coal bearing strata.

OR

Write notes on the following:

a) Proximate analysis
b) Coal carbonization
c) Coal gasification
d) Structures associated with coal seams

2. Describe in detail the geological and geographical distribution of coal and lignite deposits in India.

OR

Write notes on the following:

a) Microlitho type
b) Reflectance and fluorescence microscopy
c) Coal bed methane
d) Estimation of coal reserves

3. Discuss various types of hydrocarbon traps.

OR

Write notes on the following:

a) Migration of oil and gas
b) Classification of reservoir rocks
c) Petroliferous basins of India
d) Present status of hydrocarbons in India

4. Discuss the Principles and methods of exploration for radioactive mineral deposits.

OR

Write notes on the following:

a) Mineralogy and geochemistry of radioactive minerals.
b) Distribution of atomic minerals in India.
c) Geiger muller counter
d) Atomic fuels and environment

5. Write short notes on the following:

a) Coal combustion
b) Types of coal
c) Maceral
d) Indian coal reserves
e) Kerogen
f) Cap rock
g) Radiometric Surveys
h) Nuclear power stations of India.

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