### 2022

### B.A./B.Sc.

# **Sixth Semester**

### DISCIPLINE SPECIFIC ELECTIVE - 4

#### **GEOLOGY**

Course Code: GLD 6.21 (Fuel Geology)

Total Mark: 70 Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

#### UNIT-I

- 1. Differentiate between proximate and ultimate analysis of coal. Write in detail about the proximate method. 2+12=14
- 2. Write notes on the following:

 $7 \times 2 = 14$ 

- (a) Lithotypes
- (b) Origin of coal

#### UNIT-II

- 3. What is coal bed methane? Elaborate on the basic properties of coal as a reservoir for CBM production. 2+12=14
- 4. Write notes on the following:

 $7 \times 2 = 14$ 

- (a) Direct coal gasification
- (b) Advantages and disadvantages of underground coal gas liquefaction

#### UNIT-III

5. Explain the different chemical components of crude oil.

14

6. Write notes on the following:

 $7 \times 2 = 14$ 

- (a) Viscosity and specific gravity of crude oil
- (b) Inorganic origin of crude oil

## **UNIT-IV**

- 7. What are cap rocks? Give a detailed account on the characteristics of cap rocks and its types. 2+12=14
- 8. Write notes on the following:

 $7 \times 2 = 14$ 

- (a) Traps formed due to faulting
- (b) Clastic reservoir rocks

# **UNIT-V**

- 9. Discuss how uranium originates and occurs in nature. Also mention some of the uranium reserves in India.
- 10. Explain the different processes of how nuclear waste is disposed.