

**2024**  
**B.A./B.Sc.**  
**Sixth Semester**  
DISCIPLINE SPECIFIC ELECTIVE – 3  
**GEOLOGY**  
*Course Code: GLD 6.11*  
(Fuel Geology)

*Total Mark: 70*  
*Time: 3 hours*

*Pass Mark: 28*

*Answer five questions, taking one from each unit.*

**UNIT-I**

1. Define coal. Why is it important to determine the composition of coal?  
Elaborate on the processes employed for the chemical analysis of coal. 2+2+10=14
2. Write notes on the following: 7×2=14
  - (a) Lithotypes
  - (b) Origin of coal

**UNIT-II**

3. Define coal bed methane. Discuss the basic properties of coal as a  
reservoir for CBM production. 2+12=14
4. Write notes on the following: 7×2=14
  - (a) Direct coal gasification
  - (b) Advantages and disadvantages of underground coal gas liquefaction

**UNIT-III**

5. Explain in detail the different theories on the origin of crude oil. 14
6. Write notes on the following: 7×2=14
  - (a) Chemical composition of crude oil
  - (b) Specific gravity and viscosity 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: 7×2=14
- (a) Structural traps and its types
  - (b) Clastic reservoir rocks

## UNIT-V

9. Discuss how uranium originates and occurs in nature. Give a brief description on some of the uranium reserves in India. 7+7=14
10. Explain the different processes for disposing of nuclear waste. 14
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