



**2021/TDC(CBCS)/EVEN/SEM/
GELDSE-601T/028**

**TDC (CBCS) Even Semester Exam.,
September—2021**

GEOLOGY

(6th Semester)

Course No. : GELDSE-601T

(Fuel Geology)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

SECTION—A

Answer any *fifteen* of the following questions :

1×15=15

1. Define coal in short.
2. Write the main parameters of proximate analysis.
3. Which lithotype shows silky lustre?
4. What is the basis of classify a coal?



(2)

5. What is fuel ratio?
6. In increasing rank of coal, which component remains the same?
7. Define coal bed methane.
8. Write the concept behind coal gasification.
9. Write the main principle behind liquefaction.
10. Mention one process of liquefaction.
11. Mention the gases produced from UCG.
12. Mention one advantage of CBM.
13. Write the main composition of crude oil.
14. Which type of kerogen most oil-prone?
15. What is basic condition for the kerogen formation?
16. What is the latest international standard of representation of calorific value?
17. Define pour point.

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(Continued) 22J/30

(3)

18. Define viscosity.
19. Write one example of reservoir rock.
20. Define cap rock.
21. Define structural trap.
22. What is reservoir rock?
23. Mention one factor of stratigraphic trap.
24. Define secondary pores.
25. Define atomic minerals.
26. Name one prominent nuclear power station of India.
27. How do atomic minerals occur in nature?
28. Name one method of prospecting atomic minerals.
29. What is the basic condition for gas hydrates?
30. Mention one productive geological horizon in India in respect of atomic minerals.

(Turn Over)



(4)

SECTION—B

Write short notes on any *five* of the following :
2×5=10

31. Lithotype
32. Maceral
33. Indian scenario of CBM
34. Global scenario of CBM
35. Thermal effect of kerogen
36. Chemical composition of petroleum
37. Hydrocarbon traps
38. Characteristics of reservoir rocks
39. Nuclear power stations in India
40. Association of atomic minerals in nature

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(Continued)

(5)

SECTION—C

Write descriptive notes on any *five* of the following :
5×5=25

41. Origin of coal
42. Classification of coal
43. Liquefaction
44. Underground coal gasification
45. Physical properties of petroleum
46. Origin of petroleum
47. Classification of reservoir rock
48. Anticlinal theory of hydrocarbon trap
49. Gas hydrate
50. Mode of occurrence of atomic minerals in nature

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22J—120/30