

2023/TDC(CBCS)/EVEN/SEM/ GELDSE-601T/082

TDC (CBCS) Even Semester Exam., 2023

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: $1 \times 15 = 15$

- Name the hard part of coal.
- 2. Write one condition of coal formation.
- 3. Write the microscopic constituents of coal.
- 4. In coal ranking which parameter remains the same?

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- 5. Write the basic principles of UCG.
- 6. Write one advantage of CBM as energy.
- 7. Mention the two stages of liquefaction.
- 8. Write one form of CBM.
- Write the sp.gr. of oil.
- 10. Which type of kerogen is best suited for production of oil?
- 11. Define viscosity.
- 12. Write the colour of crude oil.
- 13. Define trap rock.
- 14. Name one cap rock.
- Define porosity.
- 16. Write the types of reservoir rock.
- Write the one area of NE India where there is prospect of atomic minerals.
- 18. Write the main impact of atomic minerals on environment.

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- Name the nodal agency for production of atomic minerals.
- 20. Define gas hydrate.

SECTION-B

Write short notes on any five of the following:

 $2 \times 5 = 10$

- 21. Volatile constituents of coal
- 22. Types of moisture
- 23. Status of CBM in India
- 24. Indirect coal liquefaction (ICL)
- 25. Flash point
- 26. Pom point
- 27. Source rock
- 28. Reservoir rock
- 29. Atomic minerals
- **30.** Name of some techniques of exploration of atomic minerals

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SECTION—C

Answer any five of the following questions:

5×5=25

- 31. Write the two theories about coal formation.
- 32. Describe the basic classification of coal.
- **33.** Write a note on the global scenario of CBM.
- 34. Describe the basic principles of coal liquefaction.
- **35.** Describe the inorganic theory of origin of petroleum.
- **36.** Critically examine the physical properties of crude oil.
- 37. Define trap. Explain the both theories of hydrocarbon trap.
- **38.** What is cap rock? Describe its general properties.
- 39. What is the role of nuclear power station and their future prospects?
- **40.** Discuss the methods of prospecting of atomic minerals.

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