

**5 SEM TDC GEO M 5**

**2 0 1 4**

( November )

**GEOLOGY**

( Major )

Course : 505

( **Fossil Fuel** )

Full Marks : 48

Pass Marks : 19

Time : 3 hours

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

**GROUP—A**

( **Coal** )

( Marks : 18 )

1. Choose and write the correct answer :  $1 \times 2 = 2$

(a) The quantity of heat produced by complete combustion of a unit mass of a fuel is called is —.

(gross calorific value/  
calorific value/ fuel ratio )

(b) Moisture content of coal is analysed as a part of —.

(proximate analysis/ultimate analysis/chemical analysis)

2. Write briefly about any *two* of the following :

4×2=8

(a) Major periods of coal formation

(b) Grading of Indian coal

(c) Coal Bed Methane (CBM)

3. Write about geological and geographical distribution of coalfields in India.

3+5=8

Or

Write about the coalfields of NE India with special reference to Assam.

8

GROUP—B

( **Petroleum** )

( Marks : 30 )

4. Choose and write the correct answer : 1×2=2

(a) The Digboi oil field is associated with Tipam sandstones, which are of

(i) Eocene Age

(ii) Miocene Age

(iii) Oligocene Age

(iv) Pliocene Age

(b) The correct sequence of encountering oil in a drill well is

(i) gas-oil-water

(ii) water-gas-oil

(iii) gas-water-oil

(iv) oil-water-gas

5. Write briefly on any *two* of the following :

2×2=4

(a) Composition of crude oil

(b) Structural traps

(c) Reservoir rock

6. Write notes on any *two* of the following : 4×2=8

(a) Origin of petroleum

(b) Migration of petroleum

(c) Characteristics of source rock

7. What do you mean by petroliferous sedimentary basins? Describe the salient features of the different categories of petroliferous basins of India.

8

Or

Describe briefly the structure and geology of Digboi oil field.

8. Describe briefly the geology of the following  
(any two) : 4×2=8

(a) Moran oil field

(b) Naharkatiya oil field

(c) Lakwa oil field

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