

5 SEM TDC GEO M 5

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(November)

GEOLOGY

(Major)

Course : 505

[Fossil Fuel (Coal and Petroleum)]

Full Marks : 48

Pass Marks : 19 (Backlog) / 14 (2014 onwards)

Time : 2 hours

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

GROUP—A

(Coal)

(Marks : 18)

1. Write on any *two* of the following : 4×2=8
- (a) Coal bed methane
 - (b) Chemical composition of coal
 - (c) Periods of coal formation

2. Write about the distribution of coal in India with special reference to North-East India. 8

Or

What is the 'rank' of coal? Give the classification of coal on the basis of rank.

2+6=8

3. Write the correct answer of the following :

- (a) Which gas is obtained during processing of coal? 1
- (i) Carbon dioxide
 - (ii) Coal gas
 - (iii) Carbon monoxide
 - (iv) None of the above
- (b) Name the stratigraphic horizons where coal is found in Assam. 1

GROUP—B

(**Petroleum**)

(Marks : 30)

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

4×2=8

- (a) Origin of petroleum
- (b) Different types of petroleum traps
- (c) Migration of petroleum

5. What do you mean by crude oil and natural gas? Write their physical properties and chemical compositions. 3+5=8

Or

What is a source rock? What are the different criteria for an effective source rock? Write shortly on the classification of source rocks.

1+3+4=8

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

- (a) Shale oil and shale gas
- (b) Petroliferous basins of India
- (c) Caprocks and its characteristics

7. Write about the petroleum bearing stratigraphic horizons of North-East India. 4

8. Write the correct answer :

- (a) Which of the following can act as reservoir rocks for petroleum? 1

- (i) Sandstone
- (ii) Limestone
- (iii) Shale
- (iv) All of the above

- (b) In which year was petroleum first produced in North-East India? 1

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