

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Winter 2022 - 23 Examination

Semester: 3**Date: 15/10/2022****Subject Code: 203120201****Time: 2.00 pm to 4.30 pm****Subject Name: Introduction to Petroleum Geology****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions - (Fill in the blanks, one word answer, MCQ-not more than Five in case of MCQ) (All are compulsory) (Each of one mark) (15)

1. _____ traps are formed by Structural deformation of rocks.
2. Highest point of the trap is called _____.
3. Movement of hydrocarbon out of the source rock toward and into a trap
 - a. Generation
 - b. Migration
 - c. Accumulation
 - d. Timing
4. Give an example of a source rock?
5. What is the size of sediments of Mud-Silt composition?
6. The shape of sedimentary rocks is determined by _____.
 - a. Original shape of minerals
 - b. Stability of minerals
 - c. Amount and nature of transport
 - d. All of the above.
7. What are Micellers?
8. What is Secondary Migration?
9. Low Grade Metamorphism occurs at about _____ temperature range.
10. What is "META" in the word Metamorphic?
 - a. Form
 - b. Change
 - c. Rock
 - d. Oil
11. Which is the most abundant rocks in the earth crust?
12. Write down an example of Extrusive Igneous Rocks?
13. ONGC foundation day is celebrated on _____.
 - a. 15th August, 1955
 - b. 14th August, 1956
 - c. 12th August, 1956
 - d. 15th August, 1949
14. _____ is the full form of DGH.
 - a. Directorate General of Hydrocarbon
 - b. Directorate General of Hydrogen.
 - c. Dictator General of Hydrocarbon.
 - d. Dissolved General of Hydrogen.
15. What is the major difference of Tertiary Migration as compared to Secondary Migration?

Q.2 Answer the following questions. (Attempt any three) (15)

- A) What is Metamorphic Rock? What do you mean by Metamorphism? Mention the three agents of Metamorphism?
- B) Explain the different Grades of Metamorphism?

C) Explain the size chart of sediments in sedimentary rocks dependent on the mode of weathering, nature of source rock, kind and distance of transportation and nature.

D) What is Kerogen? Mention the different types of Kerogen? Explain three points on Type II Kerogen?

Q.3 A) Describe in details the different stages of Hydrocarbon Generation? **(07)**

B) What is Stratigraphic Trap? Explain in tabulated form the two main groups of Primary Stratigraphic trap. **(08)**

OR

B) Explain in details the different types of sedimentary rocks under clastic and Non-Clastic in origin? **(08)**

Q.4 A) Explain the four difference between Slate and Schistose. **(07)**

OR

A) Explain the Metamorphic rock Identification Chart mentioning Texture, Foliation, Composition, Type, Parent Rock and Rock name for only Foliated Structures. **(07)**

B) Illustrate the terminologies “Retrograde Metamorphism, Regional Metamorphism and Load Metamorphism in metamorphism. **(08)**