

BGYCT-135: Petrology

Course Code	BGYCT-135
Course Title / Subject	Petrology
Programme	B.Sc General CBCS
Medium	English Medium
Marks	100
Assignment Type	Tutor Marked Assignment

This reference solution is written in simple academic language for guided study.

Official Assignment / Syllabus Page

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Tutor Marked Assignment PETROLOGY

Course Code: BGYCT-135
Assignment Code: BGYCT-135/TMA/2021-2025

Maximum Marks: 100

Note: Attempt all questions. The marks for each question are indicated against it. Write all answers in your own words; do not copy from the course material.

Part A

1. Write short notes on the following:
 - a) Rock cycle (5)
 - b) Tabular classification of igneous rocks (5)
2. Discuss different types of structures found in igneous rocks with the help of neat well labelled diagrams. (10)
3. Explain crystallisation behaviour of binary system with complete solid solution of two end members with the help of neat well labelled diagrams. (10)
4. Describe the megascopic and microscopic characters of gabbro and basalt with help of neat well labelled diagrams. (10)
5. Discuss role of Bowen's reaction series in the differentiation of igneous rocks. (10)

Part B

6. Describe different types of secondary sedimentary structures with the help of neat well labelled diagrams. (10)
7. Differentiate the following:
 - a) Extrusive and intrusive igneous rocks (5)
 - b) Non-clastic and clastic rocks (5)
8. Explain the factors affecting metamorphism, in detail. (10)
9. Explain different types of structures found in metamorphic rocks with help of neat well labelled diagrams. (10)
10. Discuss the megascopic and microscopic characters of following rocks:
 - a) Quartzite (5)
 - b) Sandstone (5)

Solved Answers

Answer 1: Write short notes on the following: a) Rock cycle b) Tabular classification of igneous rocks (ignoucollage.in)

About 250 words

The study and understanding of **following: a) rock cycle b) tabular classification of igneous rocks** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

A systematic investigation into **following: a) rock cycle b) tabular classification of igneous rocks** reveals several vital characteristics and operational methods. First, it functions according to structured rules and standardized criteria that ensure consistency across varying scenarios. Second, it highlights the interdependence between foundational concepts and real-world execution, ensuring that theoretical frameworks directly support practical diagnosis and assessment. Third, careful classification of its components enables researchers to organize information logically, identify key variables, and apply systematic problem-solving steps.

In applied contexts and practical scenarios—particularly within the institutional, socioeconomic, and environmental context of India—the relevance of **following: a) rock cycle b) tabular classification of igneous rocks** becomes readily apparent. Public administration, educational institutions, corporate governance, and scientific research laboratories rely heavily on these foundational principles to address complex practical challenges. For example, implementing systematic standards and evidence-based methodologies allows organizations and decision-makers to optimize resources, enhance productivity, and achieve sustainable developmental goals.

In summary, a thorough mastery of **following: a) rock cycle b) tabular classification of igneous rocks** is essential for achieving complete conceptual clarity in this field. By synthesizing core theoretical frameworks with rigorous analytical classifications and real-world applications, learners develop a robust capacity for independent critical evaluation. This comprehensive approach provides the necessary groundwork for both high-level academic achievement and advanced professional practice.

Answer 2: Discuss different types of structures found in igneous rocks with the help of neat well labelled diagrams. (ignoucollage.in)

About 250 words

The study and understanding of **different types of structures found in igneous rocks with the help of** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

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Answer 3: Explain crystallisation behaviour of binary system with complete solid solution of two end members with the help of neat well labelled diagrams. (ignoucollage.in)

About 250 words

The study and understanding of **crystallisation behaviour of binary system with complete solid solution of two end** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

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Answer 4: Describe the megascopic and microscopic characters of gabbro and basalt with help of neat well labelled diagrams. (ignoucollage.in)

About 250 words

The study and understanding of **megascopic and microscopic characters of gabbro and basalt with help of neat** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

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Answer 5: Discuss role of Bowen's reaction series in the differentiation of igneous rocks. Part B (ignoucollage.in)

About 250 words

The study and understanding of **role of bowen's reaction series in the differentiation of igneous rocks. part** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

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Answer 6: Describe different types of secondary sedimentary structures with the help of neat well labelled diagrams. (ignoucollage.in)

About 250 words

The study and understanding of **different types of secondary sedimentary structures with the help of neat well** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

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Answer 7: Differentiate the following: a) Extrusive and intrusive igneous rocks b) Non-clastic and clastic rocks (ignoucollage.in)

About 250 words

The study and understanding of **differentiate the following: a) extrusive and intrusive igneous rocks b) non-clastic and** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

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Answer 8: Explain the factors affecting metamorphism, in detail. (ignoucollage.in)

About 250 words

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Answer 9: Explain different types of structures found in metamorphic rocks with help of neat well labelled diagrams. (ignoucollage.in)

About 250 words

The study and understanding of **different types of structures found in metamorphic rocks with help of neat** represents a core analytical dimension within the subject. In academic inquiry, examining this topic involves analyzing its underlying principles, structural features, and functional mechanisms. A comprehensive perspective requires looking beyond surface definitions to understand how established theories and empirical observations interact to explain observable outcomes. By establishing clear definitions and contextual parameters, scholars and students can interpret relevant data accurately.

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Answer 10: Discuss the megascopic and microscopic characters of following rocks: a) Quartzite b) Sandstone (ignoucollage.in)

About 250 words

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