

**Student Name:** \_\_\_\_\_**Class:** \_\_\_\_\_**Student ID:** \_\_\_\_\_**Date:** \_\_\_\_\_

## Assessment Details

<b>Duration:</b> 60 minutes	<b>Total Marks:</b> 100
<b>Topics Covered:</b>	<ul style="list-style-type: none"><li>• Igneous Rock Formation</li><li>• Types of Igneous Rocks</li><li>• Characteristics of Igneous Rocks</li><li>• Classification of Igneous Rocks</li></ul>

## Instructions to Students:

1. Read all questions carefully before attempting.
2. Show all working out - marks are awarded for method.
3. Calculator use is permitted except where stated otherwise.
4. Write your answers in the spaces provided.
5. If you need more space, use the additional pages at the end.
6. Time management is crucial - allocate approximately 1 minute per mark.

Section A: Multiple Choice [20 marks]

Question 1

[2 marks]

What is the primary process by which igneous rocks are formed?

A) Cooling and solidification of magma

B) Weathering and erosion of existing rocks

C) Plate tectonic movement

D) Sedimentation and lithification

Question 2

[2 marks]

Which type of igneous rock is characterized by a coarse-grained texture?

A) Basalt

B) Granite

C) Obsidian

D) Pumice

Question 3

[2 marks]

What is the main difference between intrusive and extrusive igneous rocks?

A) Texture

B) Composition

C) Color

D) Formation process

Question 4

[2 marks]

Which of the following is an example of an intrusive igneous rock?

A) Basalt

B) Granite

C) Obsidian

D) Pumice

Question 5

[2 marks]

What is the term for the study of the formation and classification of rocks?

A) Petrology

B) Geology

C) Mineralogy

D) Paleontology

**Question 6**

**[8 marks]**

Describe the differences between intrusive and extrusive igneous rocks. Be sure to include examples of each type.

**Question 7**

**[8 marks]**

What are the characteristics of granite? How does it form?

**Question 8**

**[8 marks]**

Describe the process of cooling and solidification of magma. How does this process affect the texture and composition of the resulting igneous rock?

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**Question 9**

**[8 marks]**

What is the difference between phaneritic and aphanitic texture? Provide examples of igneous rocks that exhibit each type of texture.

**Question 10**

**[8 marks]**

Describe the characteristics of basalt. How does it form?

**Question 11**

**[40 marks]**

Describe the formation processes of igneous rocks and explain how they relate to the characteristics and properties of different types of igneous rocks. Be sure to include examples of intrusive and extrusive igneous rocks and discuss their differences in terms of texture, composition, and formation process.





