



DATE:

STUDENT'S NAME:

## WRITTEN EXAM – MINING COURSE



### READING SECTION

#### The History of Mining: From Prehistoric to Modern Times

Mining is the process of extracting useful materials from the earth. Some examples of substances that are mined include coal, gold, or iron ore. Iron ore is the material from which the metal iron is produced.

The process of mining dates back to prehistoric times. Prehistoric people first mined flint, which was ideal for tools and weapons. The mining of gold and copper also dates back to prehistoric times.

These profitable substances that are mined from the earth are called **minerals**. A mineral is typically an inorganic substance that has a specific chemical composition. The minerals are valuable in their pure form, but in the earth, they are mixed with other, unwanted rocks and impurities called **gangue**. This mix of gangue and minerals is usually carried away from the mine together, then later processed and refined to isolate the desired mineral.

The two major categories of modern mining include **surface** mining and **underground** mining. In surface mining, the ground is blasted so that ores near earth's surface can be removed and carried to refineries to extract the minerals. Surface mining can be destructive to the surrounding landscape, leaving huge open pits behind. In underground mining, ores are removed from deep within the earth. Miners blast tunnels into the rock to reach the ore deposits.

#### 1- Read the text and answer these questions.

- 1- What is mining?
- 2- What are minerals, and how are they typically defined?
- 3- Are minerals organic substances?

- 4- What is gangue, and how is it related to minerals in mining?
- 5- What happens to the mix of gangue and minerals after it is mined?
- 6- Did prehistoric people mine lithium?
- 7- What materials did prehistoric people first mine?
- 8- How many categories of modern mining are there? Name them.
- 9- How does underground mining differ from surface mining?
- 10- What are the potential environmental impacts of surface mining?

**2- Choose TRUE or FALSE. Correct the FALSE statements.**

- |   |      |       |
|---|------|-------|
| 1- The text describes tools and equipment.                            | TRUE | FALSE |
| 2- There are two categories of modern mining.                         | TRUE | FALSE |
| 3- Surface mining and undersea mining are mentioned in the text.      | TRUE | FALSE |
| 4- Ores are removed from deep within the earth in underground mining. | TRUE | FALSE |
| 5- Gold and silver were mined in prehistoric times.                   | TRUE | FALSE |



**LISTENING SECTION**

- 3- Sofia is at work at Pine Creek Coal Mine. Listen to the conversation between her and a coworker called Max. Complete the dialogue.

Max : How is the \_\_\_\_\_ of the mine going?

Sophia : We still have a lot to do . But we are \_\_\_\_\_

Max : Can you tell me what parts are complete?

Sophia: Yes. The buildings and \_\_\_\_\_ on the surface are ready.

Max : Good . When does \_\_\_\_\_ start?

Sophia : \_\_\_\_\_ and \_\_\_\_\_ start in a month or so.

Max : Can't we start earlier?

Sophia : I'm afraid not . Crews are still preparing the \_\_\_\_\_.

4- Listen again and choose TRUE or FALSE

The speakers are discussing safety protocols. **TRUE** **FALSE**

The roads at the mine are complete already. **TRUE** **FALSE**

Excavation starts in two months. **TRUE** **FALSE**



## LANGUAGE IN USE

5. Help Sophia to complete this report. Write all the activities they were in charge of. Use the simple past form.

Hi everyone! Last week it was a tough week at the mining site. I want to show all the activities we did. Help me to complete this report so I can send it to my supervisor.

Dear Mr Thomas, here is the report from last week's activities.



We \_\_\_\_\_ some holes near the deposit.



After that, we \_\_\_\_\_ into

the earth until we accessed the deposit.



On Wednesday we (X) \_\_\_\_\_ the rocks. The explosive devices weren't available.



On Friday we finally \_\_\_\_\_ the coal! Workers \_\_\_\_\_ it into trucks .



Then, they \_\_\_\_\_ it away from the excavation site and



\_\_\_\_\_ it out of the mine

6. Read the sentence pairs. Choose which word best fits each blank.

1 platinum - iron

A) \_\_\_\_\_ is a very valuable precious metal.

B )Ferrous metals contain \_\_\_\_\_



**2 stainless steel - uranium**

A )People make tools with \_\_\_\_\_

B ) \_\_\_\_\_ can be very dangerous.

**3 sand - gravel**

A)very small pieces of rock , often found on beaches are called \_\_\_\_\_

B)small round stones is a definition for \_\_\_\_\_

**4 potash - gypsum**

A)a white or gray mineral often added to soil is called \_\_\_\_\_

B)a white powder containing potassium is called \_\_\_\_\_

**5 vein - placer**

A) A \_\_\_\_\_ usually contains sand and gravel.

B) A \_\_\_\_\_ a narrow, elongated deposit of minerals that fills a fracture or fissure in rock.

**7. Sofia needs to identify and label the following personal protective equipment (PPE) items. Let's help her by matching each item to its correct function.**

This element protects against flying debris and head injuries.

\_\_\_\_\_

It prevents inhalation of harmful dust or chemicals.

\_\_\_\_\_

They protect the feet from injuries caused by falling objects.

\_\_\_\_\_

They reduce the risk of hearing loss in noisy environments.

\_\_\_\_\_

RESPIRATOR MASK--- HELMET--- EARPLUGS --- STEEL-TOED BOOTS -- GLOVES--  
FLAME-RESISTANT CLOTHING --- HIGH-VISIBILITY VEST --- SAFETY GOGGLES

This element ensures visibility in low-light conditions.

\_\_\_\_\_

It protects workers from burns or fire in hazardous environments.

\_\_\_\_\_

They protect eyes from dust, flying particles, and chemicals.

\_\_\_\_\_

They protect hands from cuts, abrasions, and hazardous substances.

\_\_\_\_\_



## WRITING SECTION

8- It's time to write! Choose one of the following topics and express your opinion about it.

- Mining and its impact on the environment
- Advantages and disadvantages of working in the mining industry.
- Mining industry and its social impact