



# **CHEMISTRY**

# NCERT - FULL MARKS CHEMISTRY(TAMIL)

# **GROUP 2 S - BLOCK ELEMENTS**

Question A Choose The Best Answer

**1.** Among the following, which is known as `alkaline earth metal..

A. Sodium

B. Calcium

C. Lithium

D. Potassium

#### **Answer:**

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2. Alkaline earth metals are

A. monovalent

B. trivalent

C. divalent

D. zerovalent

#### Answer:

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3. Among alkaline earth metals \_\_\_\_\_ is

having the highest ionization energy.

A. Beryllium

B. magnesium

C. Calcium

D. Barium

#### Answer:

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# 4. The colour given by barium in flame is

A. Brick red

B. Apple Green

C. Red

D. Blue

#### **Answer:**



# 5. The third most abundant dissolved ion in

the ocean is

A. Beryllium

B. Barium

C. Calcium

D. Magnesium

#### Answer:

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6. Quick lime is

A. Calcium oxide

B. Calcium hydroxide

C. Calcium nitrate

# D. Calcium sulphate

#### Answer:

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# 7. The formula of bleaching powder is

A.  $CaCl_2$ .  $H_2O$ 

 $\mathsf{B.} CaOCl_2. H_2O$ 

 $\mathsf{C.}\,CaSO_4.\,2H_2O$ 

D.  $CaSO_4$ .  $\frac{1}{2}H_2O$ 

#### Answer:





**9.** The compound used in making moulds for statues is

A. Epsom salt

B. Calcium sulphide

C. Plaster of paris

D. Gypsum

#### Answer:





# 10. The element used in pyrotechnics is

A. Magnesium

B. Barium

C. Calcium

D. Beryllium

#### Answer:



<b>2.</b> In flame, calcium gives colour.
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<b>3.</b> Beryllium resembles more with an element
in 13th group
<b>Watch Video Solution</b>
4. Magnesium comes from the name of the
mineral .



<b>7.</b> With air, Magnesium forms and
·
<b>Watch Video Solution</b>
<b>8.</b> The formula of epsom salt is
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<b>9.</b> Epsom salt is used as
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# **Question C Match The Following**

#### **1.** Match the following

- 1. Magnesite  $CaSO_4.2H_2O$
- 2. Dolamite  $MgCI_2$ . KCI.  $6H_2O$
- 3. Epsom salt  $MgCO_3$
- 4. Carnallite  $MgCO_3$ .  $CaCO_3$

5. Gypsum  $MgSO_4.7H_2O$ 

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**Question Problem** 

1. An element occupies group number 2 and period number 3. This element reacts with oxygen and nitrogen to form compound A and B. It is a strong electropositive metal so it displaces Ag from  $AgNO_3$  solution. With concentrated nitric acid, it forms compound C. Identify the element, compound A, B and C.

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**Question D Write In One Or Two Sentence** 

1. Why the oxides of Group 2 metals have high

melting points?

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2. Why there is increase in the ionisation potential for forming  $M^{3+}$  is not very much greater than  $M^+$  ion for group metals?

**3.** Why the ionization potential of  $M^{2+}$  is not

very much greater than  $M^+$ ?

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**4.** List the carbonates and hydroxide of alkaline earth metals in order of their increasing stability and their solution.

**5.** Why do beryllium halides fume in air?



6. Why group 2 elements are harder than alkali

metals?

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7. Why do beryllium halides fume in air?

8. Why are monoxides of alkaline earth metals

are very stable?



# 9. Why the oxides of Group 2 metals have high

melting points?

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Question D Explain Briefly On The Following

1. What are alkaline earth metals? Why are

they called so?

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2. In what respects Be and Mg differ from all

the other metals of group 2.

**3.** How can you explain the anomalous behaviour of beryllium. **Watch Video Solution**

4. How does magnesium occur in nature? How

is the metal extracted from its Ore?



7. How is plaster of paris prepared ?





9. Mention the uses of Magnesium?



**1.** Among the following, which is known as `alkaline earth metal..

A. Sodium

B. Calcium

C. Lithium

D. Potassium

Answer:

### 2. Alkaline earth metals are

A. monovalent

B. trivalent

C. divalent

D. zerovalent

Answer:

**3.** Among alkaline earth metals \_\_\_\_\_ is having the highest ionization energy.

A. Beryllium

B. magnesium

C. Calcium

D. Barium

Answer:

4. The colour given by barium in flame is

A. Brick red

- B. Apple Green
- C. Red
- D. Blue

#### **Answer:**



5. The third most abundant dissolved ion in

the ocean is

A. Beryllium

B. Barium

C. Calcium

D. Magnesium

#### Answer:

# 6. Quick lime is

A. Calcium oxide

- B. Calcium hydroxide
- C. Calcium nitrate
- D. Calcium sulphate

#### Answer:



7. The formula of bleaching powder is

A.  $CaCI_2$ .  $H_2O$ 

### B. $CaOCI_2$ . $H_2O$

 $\mathsf{C.}\,CaSO_4.\,2H_2O$ 

D.  $CaSO_4$ .  $\frac{1}{2}H_2O$ 

#### **Answer:**

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8. Plaster of Paris is \_\_\_\_\_

A.  $CaSO_4$ .  $2H_2O$ 

B.  $CaCI_2$ 

# $C. CaSO_4$

D.  $CaSO_4$ .  $_2H_2O$ 

#### Answer:

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# 9. The compound used in making moulds for

statues is

A. Epsom salt

- B. Calcium sulphide
- C. Plaster of paris
- D. Gypsum

#### Answer:

Watch Video Solution

# 10. The element used in pyrotechnics is

A. Magnesium

B. Barium

# C. Calcium

D. Beryllium

### Answer:



# 11. The general electronic configuration of

alkaline earth metals is \_\_\_\_\_\_.

<b>12.</b> The ionic radius on moving
down the group 2.
Match Video Solution
<b>13.</b> In flame, calcium gives colour.
<b>Watch Video Solution</b>
14. Beryllium resembles more with an element
in 13th group







# 21. Match the following

- 1. Magnesite  $CaSO_4.2H_2O$
- 2. Dolamite  $MgCI_2$ . KCI.  $6H_2O$
- 3. Epsom salt  $MgCO_3$
- 4. Carnallite  $MgCO_3$ .  $CaCO_3$
- 5. Gypsum  $MgSO_4.7H_2O$

**22.** An element occupies group number 2 and period number 3. This element reacts with oxygen and nitrogen to form compound A and B. It is a strong electropositive metal so it displaces Ag from  $AgNO_3$  solution. With concentrated nitric acid, it forms compound C. Identify the element, compound A, B and C.



23. Why the oxides of Group 2 metals have

high melting points?

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**24.** Why there is increase in the ionisation potential for forming  $M^{3+}$  is not very much greater than  $M^+$  ion for group metals?

**25.** Why there is increase in the ionisation potential for forming  $M^{3+}$  is not very much greater than  $M^+$  ion for group metals?



**26.** List the carbonates and hydroxide of alkaline earth metals in order of their increasing stability and their solution.



**27.** Why do beryllium halides fume in air?



**29.** Beryllium halides are covalent whereas magnesium halides are ionic. Why?





30. Why are monoxides of alkaline earth

metals are very stable?

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**31.** The basic strength of the oxides of group 2

elements increases from Be to Ba. Why?





33. In what respects Be and Mg differ from all

the other metals of group 2.

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**34.** How can you explain the anomalous behaviour of beryllium.

**35.** How does magnesium occur in nature?

How is the metal extracted from its Ore?



36. Why the first ionization energy of alkaline

earth metals higher than that of Ist group.

37. Mention the uses of plaster of paris



40. Mention the uses of Magnesium?

