

India's Number 1 Education App

### **CHEMISTRY**

# **BOOKS - VGS PUBLICATION-BRILLIANT**

# **MODEL PAPER 12**



1. What are S.T.P conditions?

2. Calculate the weight of 0.1 mole of sodium carbonate.
Watch Video Solution
3. What are the sign conventions of the work

done on the system and work done by the system?

4. What are the ' $\Delta H$ ' sign conventions for exothermic and endothermic reactions? • Watch Video Solution

5. No work is done on the system, but heat (q) is taken out from the system by the surroundings. What type of wall does the system have?



**6.** Work is done by the system and heat (q) is supplied to the system. What type of system would it be?



7. All Lewis acids are not Bronsted acids. Why?

Watch Video Solution

**8.**  $SiO_2$  is a solid while  $CO_2$  is a gas - explain.



?

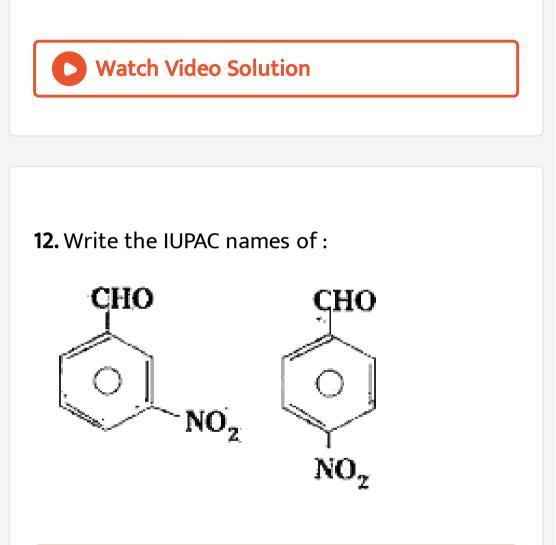
9. What happens when the following are heated

 $CaCO_3$  and  $SiO_2$ 

Watch Video Solution

**10.** Which oxides cause acid rain ?

**11.** Name the green house gases.





1. Deduce (a) Boyle's law and (b) Charles law from

Kinetic gas equation.



2. Balance the following redox reactions by ion-

electron method :

 $MnO_4^{\,-}(aq)+SO_2(g)
ightarrow Mn^{2\,+}(aq)+HSO_4(aq)$ 

(in acidic solution )

#### 3. Which buffer solution has maximum pH?



**4.** Discuss the principle and the method of softening of hard water by synthetic, ionexchange resins.



5. What is Plaster of Paris? Write a short note on

it.



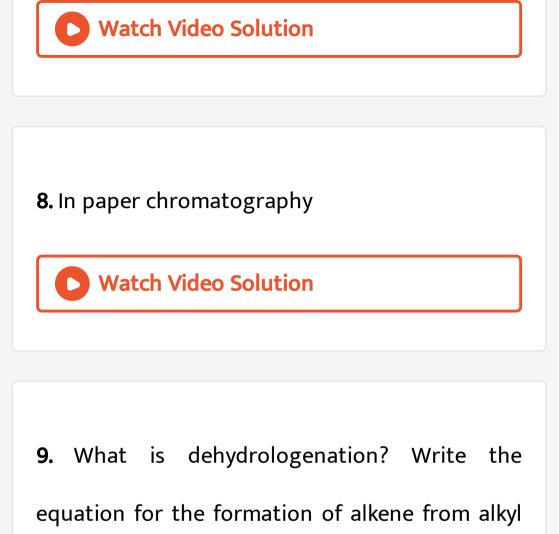
6. Explain borax bead test with a suitable

example



**7.** Explain the following :

b) Thin layer chromatography



halide.



1. Write a short notes on Fluorine

Watch Video Solution

2. Given the outer electronic configuration of

s,p,d and f-block elements.



**3.** What do you understand by Hybridisation ? Explain different types of hybridisation involving s and p orbitals.