

P I C S

PRADEEP SHARMA'S CHEMISTRY

I N S T I T U T E

You Tube
Channel name
"pics4iit"

f
PICSedusolutions

Website
www.picsinstitute.com

FOLLOW US ON
twitter



WhatsApp



PICS EDUCUPLEX
Education multiplex
Free education for NTSE | NSTSE | KVPY
Sonapat (Delhi-NCR)
8130-221102 (at 10:00 AM)



P I C S
INSTITUTE

P I C S
PRADEEP SHARMA'S CHEMISTRY
INSTITUTE
Sonapat (Delhi-NCR) | Delhi-NCR | India | 15000

@pradeepsharma19

For Batch Updates,
Home work & Home Tests
8901076267



BOOST
your **IIT JEE/AIPMT** preparation
Get revision notes, video lectures, mind maps,
test series and much more...

**Together
Difference**

ENGINEERING | MEDICAL | CBSE



IIT-JEE

AIPMT

CBSE

NTSE

NSTSE

KVPY

VIDEO LECTURES

Education multiplex



P I C S

EDUCATION SOLUTIONS PVT. LTD.

Sector - 15, Sonapat - Delhi - NCR - Haryana | 09416388045 | 8901076267

INSTRUCTIONS

1. Solve the Test On Plain Paper .
2. Finish the test In 1:30 Hr.
3. After completing the test Post your answer sheet for Evaluation to the following Address -

PRADEEP SHARAM

House No. - 1322

Sector-15

Haryana-131001

name -

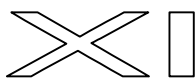
SCHOOL-

PHONE NO.-



PICS INSTITUTE

ALL INDIA TEST SERIES



Some basic concept

2 - Marks Each

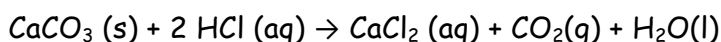
1. How are 0.50 mol Na_2CO_3 and 0.50 M Na_2CO_3 different?
2. Define - (a) Law of Multiple proportion (b) Avogadro Hypothesis.
3. A solution of H_2SO_4 consists of 24.5 g of H_2SO_4 in 500 cc of solution. Find its Molarity?
4. Which is more concentrated 1M or 1 m at room temperature & why?
5. Mole fraction of NaOH in an aq solution is 0.4. Find out Molality of solution?

3 - Marks Each

6. Calculate the number of atoms in each of the following (i) 52 moles of Ar
(ii) 52 u of He (iii) 52 g of He.
7. A compound contains C = 41.37%, H = 5.75%, N = 16.09%, V.D. = 43.3. Calculate Molecular formula.
8. Dinitrogen and dihydrogen react with each other to produce ammonia according to the following chemical equation:
$$\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightarrow 2\text{NH}_3(\text{g})$$
 - (i) Calculate the mass of ammonia produced if 2.00×10^3 g dinitrogen reacts with 1.00×10^3 g of dihydrogen.
 - (ii) Will any of the two reactants remain unreacted?
 - (iii) If yes, which one and what would be its mass?
9. A sample of drinking water was found to be severely contaminated with chloroform, CHCl_3 , supposed to be carcinogenic in nature. The level of contamination was 15ppm (by mass).
 - (i) Express this in percent by mass.
 - (ii) Determine the molality of chloroform
10. 20 g of CaCO_3 & 20 g HCl reacts to give CaCl_2 , CO_2 & H_2O . Find (a) L.R. (b) E.R. (c) Maximum amount of CO_2 formed?

Or

Calcium carbonate reacts with aqueous HCl to give CaCl_2 and CO_2 according to the reaction,



What mass of CaCO_3 is required to react completely with 25 mL of 0.75 M HCl?