Name: _____	**Subject:** Chemistry	**Class:** 12th	**Time:** 60 minutes	Total Marks:	**30**
Chapter No.4	**MJDexpert.com**			Obtained marks	

Note: Please attempt any 8 short questions from Question 2. Also, attempt both parts (a and b) of Question 3. Cutting and removal of any content is strictly prohibited.

Objective-Section

Q. 1 Encircle the correct answer by filling the appropriate circle. (8x1=8)

1. **Aqua Regia contains Nitric acid and Hydrochloric acid in the ratio of**
   (A) 1:1 (B) 1:2 (C) 1:3 (D) 3:1
2. **Laughing gas is chemically**
   (A) NO (B) N_2O (C) NO_2 (D) N_20_4
3. **The brown gas formed when metal reduces HNO3 to:**
   (A) NO (B) N_20 (C) NO_2 (D) N_2O_4
4. **What is % age of calcium phosphate in bone ash?**
   (A) 20 (B) 40 (C) 60 (D) 80
5. **Which of the following statement is incorrect?**
   (a) H_2SO_4 sets as a strong oxidizing agent (b) H_2SO_4 acts as a strong reducing agent
   (c) H_2SO_4 acts as a dehydrating agent (d) H_2SO_4 acts as a sulphonating agent
6. **Bone ash contains**
   (a) 80 % P (b) 80% $Ca_3(PO_4)_2$ (c) 90 % P (d) 90 % $Ca_3(PO_4)_2$
7. **Catalyst used in contact process is:**
   (a) Fe_2O_3 (b) V_2O_5 (c) NO (d) Ag_2O
8. **NO_2 is called:**
   (A) Nitrogen peroxide (B) Nitrous oxide (C) Nitric oxide (D) Nitric anhydride

Subjective-Section

Q.2 Write short answers of any eight (8) of the following questions: (8x2=16)

1. How does NO act s as a reducing agent? Give two examples.
2. NO_2 is a strong oxidizing agent Prove the truth of this statement by giving two examples.
3. Write down any two uses of HNO_3.
4. Define such properties in which white **phosphorus** is different from red phosphorus.
5. Write down two reactions in which P_2O_5 is acting as a dehydrating agent.
6. Give four differences between oxygen with **Sulphur.**
7. Why SO_3 is dissolved in H_2SO_4 and not in the water?
8. P_2O_5 is a strong dehydrating agent. Prove with examples.
9. Complete and balance the chemical reaction
10. (i) Cu +HNO_3 (dil) → (ii) Zn +HNO_3 (dil) →

Q.No.3 Long Question: (4+4=8)

a) What are **dehydrating agents**? Give any four reactions in which sulphuric acid plays the role as a dehydrating agent.

b) Write down the balanced chemical equations and names of the products formed when **conc HNO_3** reacts with

(i) Zinc (ii) Tin (iii) Mercury