

**Q. 1 CHOOSE THE CORRECT ANSWER. [03]**

- (1) On which content of the raw material, the yield of the phosphorous based on?  
(A) Silica (C) Calcium phosphate  
(B) Coke (D) None of these
- (2) In sodium sulfate manufacturing, at which temperature salt enriched brine leaving the well is chilled?  
(A) 0<sup>o</sup>F-5<sup>o</sup>F (C) 10<sup>o</sup>F-15<sup>o</sup>F  
(B) 15<sup>o</sup>F-20<sup>o</sup>F (D) 20<sup>o</sup>F-25<sup>o</sup>F
- (3) What is the oxidation state of chromium in chromic acid?  
(A) +3 (C) +6  
(B) +4 (D) -6



**Q.2 Answer the following in short.(Attempt any two) [04]**

- (1) Enlist the raw materials required for manufacture of superphosphate.  
(2) Define catalyst.  
(3) Write properties and uses of perchloric acid.

**Q.3 (A) With the help of flow diagram explain the manufacture of ammonia. [06]**

**OR**

**Q.3 (A) With the help of flow diagram explain the manufacture of triple super phosphate. [06]**

**Q.4 (A) With the help of flow diagram explain the manufacture of fluorine [06]**

**OR**

**Q.4 (A) With the help of flow diagram explain the manufacture of sodium thiosulfate. [06]**

**Q.5 (A) With the help of flow diagram explain the manufacture of sodium borohydride. [06]**

**OR**

**Q.5 (A) Explain the leblanc process for manufacturing of soda ash. [06]**