



**THE ANSWERS MUST BE ATTEMPTED ON THE ANSWER SHEET PROVIDED**

**Q.1. Answer the following short questions. (15x2=30)**

- (i) Give examples of non heme proteins.**
- (ii) Give one example of oxidation addition reactions.**
- (iii) What is the role of iron and iodine in living things?**
- (iv) What is the difference between inert and labile complexes?**
- (v) Give some examples of n-3 allylic organometallic compounds.**
- (vi) What is the by product of hydroformylation reactions**
- (vii) How chelate therapy is used to cure Cu(II) excess in body**
- (viii) How nitrogen fixation takes place in vitro?**
- (ix) What is ferrocene? Give its alkylation.**
- (x) Give the mechanism of Wecker process.**
- (xi) Give the oxidation of Cobaltocene.**
- (xii) What are cytochromes?**
- (xiii) Differentiate between chlorophyll a and chlorophyll b.**
- (xiv) What is the role of siderophores?**
- (xv) What is Bohr effect in binding of oxygen to haemoglobin.**

**Q.2. Answer the following questions. (3x10=30)**

- (a) Explain the substitution reactions in square planar complexes.**
- (b) Why metalloporphyrine rings are important in Respiration and photosynthesis?**
- (c) Give the synthesis and properties of n- 5 organometallic compounds.**