



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

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

- (i) What are the raw materials of Soda industry?
- (ii) Give examples of Copper ores.
- (iii) What is the role of chelates in biological system?
- (iv) What is the central atom of Haemoglobin and myoglobin in human body?
- (v) How nuclear reactions can be initiated?
- (vi) What are the type of radioactivity?
- (vii) Give example of indicators used in EDTA titrations?
- (viii) Explain the structure of Pheolphthalein in both acidic and basic condition.
- (ix) How radioactivity is measured? Give its SI units.
- (x) What are the main defects of VESPR theory?
- (xi) How CFT is superior to VBT?
- (xii) How radiations can be classified?
- (xiii) What are the raw materials of soap industry?
- (xiv) How colour is imparted to Glass during its manufacturing process.
- (xv) How age of earth can be predicted by carbon dating?

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

- (a) Compare the structures of AB<sub>6</sub> type of complexes on the basis of VBT, MOT
- (b) What are the applications of nuclear reactions in chemistry and industry?
- (c) What are the types of isomerism. Explain with suitable examples of metal complexes.