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Roll No

CY-110

B.E. (All Branches) I Year I Semester

Examination, December 2015

Choice Based Credit System (CBCS)

Chemistry

Time : Three Hours

Maximum Marks : 60

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Draw molecular orbital level diagram for Nitric Oxide and Boron molecule.
b) Explain VSEPR model.

2. a) Differentiate between VBT and MOT.
b) Calculate the bond order of CO and N₂.

3. a) Define the following term:-
i) Component
ii) Phase
iii) Degree of freedom
b) Draw a phase diagram of Copper-Silver system.

4. a) What are the consequences of corrosion?
b) Write mechanism of electrochemical corrosion

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5. a) Explain the following:-

- i) Transport number
ii) Solubility product

- b) Define order of reaction. How it is differ from molecularity of a reaction?

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6. a) Describe relationship between Cp and Cv.

- b) Write short note on:-

- i) Flash and Fire point
ii) Viscosity Index

7. a) Write mechanism of polymerization.

- b) Write short note on:-

- i) Gibbs - Helmholtz equation
ii) Norrish type I reaction.
