

Roll No

CY-110**B.E. (All Branches), I Year II Semester**

Examination, June 2016

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) Explain Valance Bond Theory (VBT).
b) Draw molecular orbital level diagram of Oxygen (O_2) molecule.
2. a) Differentiate between bonding and antibonding molecular orbital.
b) Show molecular orbital of H-F molecule with help of diagram and calculate Bond Order. 2
3. a) Draw and explain phase diagram for Water System.
b) State and discuss phase rule and significance of Triple Point.
4. a) Differentiate between Chemical corrosion and Electrochemical corrosion.
b) Describe the Mechanism, causes and prevention of pitting corrosion.

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5. a) Discuss in detail zero order reaction along with half life period of zero order reaction.
b) Discuss the difference between order of reaction and molecularity of reaction.
6. a) Give difference between electrochemical and electrolytic cell.
b) Discuss chemistry of vision of human eye.
7. a) Write the preparation, property and uses of Nylon 6.
b) Explain the determination and significance of Saponification Numbers.

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