

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)

CLASS: ISc
BRANCH: CHEMISTRY

SEMESTER: III
SESSION : MO/2019

SUBJECT : CH201 INORGANIC CHEMISTRY-II

TIME: 1.5 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 30.
 2. Candidates may attempt for all 30 marks.
 3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. The missing data, if any, may be assumed suitably.
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- Q1 (a) Define roasting. What changes do take place when a concentrated ore is subjected to roasting? [2]
Q1 (b) Explain the reduction of metal oxide with reference to the following: [3]
(i) Reduction with dihydrogen & water gas (ii) Goldschmidt Aluminothermic process
- Q2 (a) Explain gold parting. [2]
Q2 (b) Draw and discuss briefly the application of Ellingham diagram. [3]
- Q3 (a) Which is more acidic and why? CH_3COOH or ClCH_2COOH . [2]
Q3 (b) Explain leveling effect with the help of example. [3]
- Q4 (a) Explain HSAB principle & discuss its application. [2]
Q4 (b) With reference to HSAB principle, discuss the following: [3]
(i) Stability of complexes (ii) Prediction of hardness and softness
- Q5 (a) Explain inert pair effect. [2]
Q5 (b) Discuss various allotropic form of phosphorous. [3]

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