Shree M. P. Shah Arts and Science College, Surendranagar

B.Sc. Sem-2 Chemistry - Assignment-1 - 2019/20

Q:1 Answer the following questions in short. (02 marks).

1 Explain why melting points of ionic solids are high.

2 Write short note on ionization isomerism.

Q:2 Answer the following questions in brief. (03 marks).

1 Give Hess Law and draw Born-Haber Cycle.

2 Explain Co-ordination isomerism.

Q:3 Answer the following questions in detail. (05 marks).

1 What is limiting radius ratio? Derive r_+/r_- for square planar structure.

2 Discuss Geometrical isomerism in six co-ordinated complexes.

Date of Submission: On First Internal Exam Date

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B.Sc. Sem-2 Chemistry - Assignment-2 - 2019/20

Q:1 Answer the following questions in short. (02 marks).

1 Write electronic configuration of Cr and Cu.

2 Write Law of Symmetry.

Q:2 Answer the following questions in brief. (03 marks).

1 Why Cu^{+2} is paramagnetic while Cu^{+1} is diamagnetic?

2 Explain structure of NaCl.

Q:3 Answer the following questions in detail. (05 marks).

1 Write note on powder method for X-Ray diffraction.

2 Calculate Spin only magnetic moment of following complex compounds.
(i) $[NiCl_4]^{-2}$ (ii) $[FeF_6]^{-4}$ (iii) $[Fe(CN)_6]^{-4}$

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B.Sc. Sem-2 Chemistry - Assignment-3 - 2019/20

Q:1 Answer the following questions in short. (02 marks).

1 Give Newman formula of staggered and eclipsed ethane.

2 Why benzene is aromatic but [12] annulene is not?

Q:2 Answer the following questions in brief. (03 marks).

1 Explain Bayer strain theory.

2 Explain Friedal Craft alkylation of benzene.

Q:3 Answer the following questions in detail. (05 marks).

1 Give methods of preparation of cycloalkane.

2 Explain nitration of benzene with mechanism.

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B.Sc. Sem-2 Chemistry - Assignment-4 - 2019/20

Q:1 Answer the following questions in short. (02 marks).

1 Define electrolytes. Give its type with example.

2 Derive ionic product of water.

Q:2 Answer the following questions in brief. (03 marks).

1 Write short note on common ion effect.

2 Derive Handerson Huckelback equation for pH of acidic buffer.

Q:3 Answer the following questions in detail. (05 marks).

1 Derive equation of K_h, x and pH of salt of strong base and weak acid.

2 Discuss the buffer action of acidic and basic buffer solution.

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